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Elite control through marriage over institutional change

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Elite Control through Marriage over Institutional Change

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Abstract:

Economic inequality remains a persistent and widely studied issue in the social sciences. South Korea provides a striking example where the top 23 business groups, controlled by ultra-wealthy, family-owned conglomerates (chaebols), have maintained significant economic persistence and resisted outsider entry, even amidst the disruptive forces of the 21st-century digital age. This study sheds light on how chaebol families have strategically evolved their use of marriage alliances as a key channel to political networks, significantly shaping the dynamics of elite influence over time. In the pre-democratic era, chaebols often formed marriages with politicians to strengthen their influence and boost corporate value. For example, the 2024 divorce between SK Group's Chey Tae-won and Roh So-young, daughter of former President Roh Tae-woo, highlights how such alliances helped secure key advantages, like SK's telecom permit in the 1980s (BBC News, 2024.5). However, marriages with other elites or commoners didn't provide the same benefits. Contrary to the perspective presented by The Economist (2015.4) that such practices among Korean chaebols are enduring, this study finds that blood-based alliances between politicians and elite businessmen was a temporal, institution-specific strategy that have largely disappeared in the democratic era. As South Korea transitioned to a more liberalized regime, the frequency of these political marriages has drastically declined, as confirmed by our analysis. Instead, chaebol families have adapted by leveraging elite marriages within their own business circles to sustain family control over top business groups. These practices have ensured their continued economic dominance while limiting outsider entry into their exclusive networks. This study documents the evolution of marriage alliances as a critical mechanism through which chaebols have navigated changing institutional landscapes, maintaining their entrenched economic power despite shifting political and social conditions.

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Economic inequality remains a persistent and widely studied issue in the social sciences. South Korea provides a striking example where the top 23 business groups, controlled by ultra-wealthy, family-owned conglomerates (*chaebols*), have maintained significant economic persistence and resisted outsider entry, even amidst the disruptive forces of the 21st-century digital age. This study sheds light on how *chaebol* families have strategically evolved their use of marriage alliances as a key channel to political networks, significantly shaping the dynamics of elite influence over time. In the pre-democratic era, *chaebols* often formed marriages with politicians to strengthen their influence and boost corporate value. For example, the 2024 divorce between SK Group's Chey Tae-won and Roh So-young, daughter of former President Roh Tae-woo, highlights how such alliances helped secure key advantages, like SK's telecom permit in the 1980s (BBC News, 2024.5). However, marriages with other elites or commoners didn't provide the same benefits. Contrary to the perspective presented by The Economist (2015.4) that such practices among Korean *chaebols* are enduring, this study finds that blood-based alliances between politicians and elite businessmen was a temporal, institution-specific strategy that have largely disappeared in the democratic era. As South Korea transitioned to a more liberalized regime, the frequency of these political marriages has drastically declined, as confirmed by our analysis. Instead, *chaebol* families have adapted by leveraging elite marriages within their own business circles to sustain family control over top business groups. These practices have ensured their continued economic dominance while limiting outsider entry into their exclusive networks. This study documents the evolution of marriage alliances as a critical mechanism through which *chaebols* have navigated changing institutional landscapes, maintaining their entrenched economic power despite shifting political and social conditions.

Introduction

The persistence of inequality has long been a central concern in global economic debates, with scholars striving to understand how elites maintain and perpetuate power across generations (Deaton 2013; Piketty 2014). This paper adds a unique perspective to that conversation by examining the strategic role of marriage in maintaining elite control. We study marriage patterns of members of *chaebols*, powerful, family-owned South Korean conglomerates, and their economic outcomes.

Family businesses have historically played a pivotal role in the formation and persistence of large business groups worldwide (Greif, 1998; La Porta et al., 1999, Sasada et al., 2013) and their power persists despite significant institutional changes (Han, 2008; Khanna and Yafeh, 2007). Recent scholarship has shifted towards understanding the economic impact of these marriage alliances on firm value (Fisman, 2001; Faccio, 2006; and Bunkanwanicha et al., 2013), demonstrating that firms connected to political elites tend to outperform their non-connected counterparts due to their ability to secure favorable policies and access to state resources.

However, there has been limited exploration of how these network structures evolve over time. This paper addresses that gap by analyzing the multigenerational marriage records of Korean *chaebol* families, highlighting how certain type of marriage alliances shaped corporate performance and lead to economic persistence that survive major disruptions like democratization, Asian Financial Crisis, and the rise of the digital economy.

Literature Review

Family enterprises, which constitute a significant share of business groups and large-scale firms globally, have long used marriage to add strategic value and strengthen familial control (La Porta et al. 1999). Greif (1998) demonstrates that, historically, inter-clan marriages functioned as commitment devices that stabilized political alliances, as seen in his case study of medieval Genoa. In the context of family firms, marriage not only binds families but also facilitates the inheritance and control of businesses across generations. This practice was mirrored in Japan during its late industrialization, when *zaibatsu* families formed dense marital and political networks to consolidate their power. Sasada et al. (2013) document that these alliances, often termed '*seisho*' in Japan, played a key role in establishing crony capitalism, where business and political elites intertwined to sustain economic dominance. The importance of political networks for businesses has garnered significant scholarly attention, particularly regarding their impact on firm value (Fisman 2001; Faccio 2006; Bunkanwanicha et al. 2013; Schoenherr 2019).

Bunkanwanicha et al. (2013) examine the impact of marriage alliances on family firms in Thailand and find that network marriages, particularly those involving political elites, significantly improve the business prospects of these firms. Their key results show that politically connected marriages lead to increased firm value, as measured by abnormal stock market returns. The study concludes that marriage serves as a crucial channel through which family businesses secure political connections, allowing them to gain access to state resources, favorable policies, and other forms of non-market advantages. This, in turn, enhances their competitive position and long-term financial performance.

Although a substantial body of literature established the network hypothesis of marriage in detail for short-term gains and losses, the longer-term dynamics of economic marriage networks and their evolving political relevance remains unexamined. This paper addresses this gap by analyzing the marriage records of South Korean chaebol families across multiple generations. As South Korea shifted from state-led industrialization to a liberalized, democratic regime, our findings reveal a significant decline in politically motivated marriages, highlighting the diminishing role of political connections in chaebol businesses. Instead, marriages between corporate families have become more prominent, reflecting a shift in the type of social capital that underpins economic control. By focusing on the evolving nature of these networks over different institutional settings, this study provides a unique perspective on how elite families adapt their strategies to maintain economic dominance over time, shedding light on the broader implications for inequality and corporate governance.

Historical context

The historical development of South Korea's chaebols is deeply intertwined with the country's rapid industrialization, which began under state-led economic policies in the 1960s. Following the Korean War and a period of political instability, General Park Chung-hee seized power in 1961 and implemented aggressive industrial policies to modernize the economy. These policies, known as state-led industrialization, saw the government working closely with a select group of family-owned conglomerates, or chaebols, granting them favorable conditions such as access to capital and technology, as well as political protection. This symbiotic relationship between the government and chaebols allowed these family-controlled businesses to grow into the dominant forces in South Korea's economy, a status they continue to hold today.

During the 1960s through the 1980s, the chaebols consolidated their power not only through their business ventures but also through strategic marriages that linked them to political elites.

These marriages helped cement their influence over state resources and policy decisions, a practice seen in other late-developing nations like Japan during its pre-war industrialization (Sasada et al. 2013). South Korea's authoritarian regimes favored chaebols as key drivers of economic growth, allowing them to expand into multiple industries through diversification, often with the help of government loans and subsidies. Political connections, strengthened by intermarriages between chaebol families and political figures, were essential for maintaining these privileges, enabling the chaebols to dominate the South Korean economy while limiting competition from outsiders.

However, the introduction of democracy in the late 1980s, following the June Democracy Movement of 1987, marked a shift in the political landscape. As democratic reforms took root, political alliances through marriage became less critical for the chaebols. The liberalization of the South Korean economy and the move towards more transparent governance reduced the need for direct political connections. In this post-industrialized era, chaebols shifted their focus to intra-corporate marriages to consolidate their control within business networks, ensuring that economic power remained concentrated among the corporate elite. Despite these changes, the chaebols' dominance over the economy persisted, as their long-standing business networks and capital accumulation continued to provide significant barriers to entry for new competitors.

Hypotheses

This research is theoretically grounded in the contact capabilities hypothesis advanced by Amsden (1989), Guillén (2001), and Kock and Guillén (2001). In short, the ability of entrepreneurs to engage with government officials and other politicians (in addition to their foreign business contacts) not only mattered to the large-scale formation of their business groups—in terms of their rapid and repeated entries into unrelated sectors—but also improved the economic profits and business prospects. Kock and Guillén (2001: 77) substantiate the Schumpeterian theory of contact capabilities:

Entrepreneurs in late development build a business group by engaging in a distinct type of innovation. Instead of creating new products, they leverage local and foreign contacts to combine foreign technology and local markets... The capability to leverage contacts is broadly applicable to diverse industries, creating incentives for unrelated diversification... This is in marked contrast to more advanced countries where success in business is linked more to technological and organisational capabilities.

As further observed by Kock and Guillén (2001: 95), the importance of contact capabilities in the initial formation of business groups in the late industrialisation period, and its notable decline, thereafter, has been well noted by a number of scholars:

In particular, we suggest that the importance of contact capabilities, after reaching a peak early on in the economic history of a late-developing country, declines over time. After some locals create firms based on contacts, entrepreneurial survival and growth in the country shift to effectiveness and efficiency at executing projects and running plants (Amsden and Hikino 1994), as well as to finding ways to cope with inefficient local factor markets (Khanna and Palepu 1997; Ghemawat and Khanna 1998).

Building on the contact capabilities hypothesis advanced by Amsden (1989), Guillén (2001), and Kock and Guillén (2001), we formulate two historical hypotheses of nonmarket strategy.

Hypothesis 1. Political networking in frequency rises among entrepreneurs during late development but declines thereafter.

Political networking in the context of this study refers to the deliberate establishment and maintenance of relationships with political figures or their families to gain economic or policy advantages. This concept aligns with prior research on political connections, such as the works of Faccio (2006) and Fisman (2001), which emphasize the tangible benefits firms derive from proximity to political power, including favorable regulations, subsidies, and resource access. For this study, we operationalize political networking by identifying marriages between chaebol family members and individuals with verifiable political affiliations. We specifically categorize political connections based on their roles in public service, such as national assembly members, ministers, and governors, using a comprehensive dataset of chaebol marital alliances from 1948 to 2015.

To measure the influence of political networking, we constructed a historical dataset documenting 643 marital events involving chaebol families. Political connections were classified based on the public roles of the in-laws, as detailed in Han's (2008) framework. The presence of political connections was evaluated for their impact on corporate value using event studies that measure abnormal returns surrounding these marital events. By comparing the frequency and outcomes of politically motivated marriages over time, we demonstrate the rise and decline of political networking as a strategic tool, particularly before and after South Korea's democratization.

Hypothesis 2. Political networking as a nonmarket strategy affects the related firm values.

Non-market strategy, in this study, refers to the set of actions taken by firms or families to influence the institutional environment and gain competitive advantages outside traditional market mechanisms. This includes leveraging relationships with political elites, forming alliances with other corporate families, and shaping policy environments. Building on the work of Kock and Guillén (2001), non-market strategies are understood as critical for navigating institutional voids, particularly in late-developing economies. In the chaebol context, we focus on marriage alliances as a prominent non-market strategy used to secure access to state resources and maintain control over business networks.

To assess the role of non-market strategy, we analyze the strategic patterns of marriage alliances among chaebol families, categorized as political, corporate, or non-network. The effects of these alliances on firm performance were measured through cumulative abnormal returns (CARs) in an event study framework, capturing the market's reaction to these strategic actions. By contrasting the outcomes of political and corporate marriages, we identify how non-market strategies evolved in response to South Korea's shifting institutional landscape, highlighting their declining reliance on political ties and increasing focus on intra-corporate alliances.

Methodology

1. *Historical Marriage Network data*

This study constructs a historical network of South Korean chaebol families by analyzing intermarriages over several decades. The network is built using data collected on marital events involving the descendants of the founders of 52 historical chaebol families. The primary data sources include publications and records compiled since 1989, notably by Kong (1989), The Seoul Kyong-Je Daily (1991), Kim et al. (2005), and Han (2008), with updates extending the dataset to 2020. In total, 643 marital events were documented and analyzed.

Marital events were classified based on the vocational backgrounds of the in-laws into three distinct categories: (1) politicians, (2) corporate owners, and (3) others (non-network marriages). This classification mirrors the approach of Han (2008), emphasizing a parsimonious method to categorize job backgrounds relevant to network formation. Figure 1 illustrates the cumulative image of these networks at the core as of 2020.1.1.

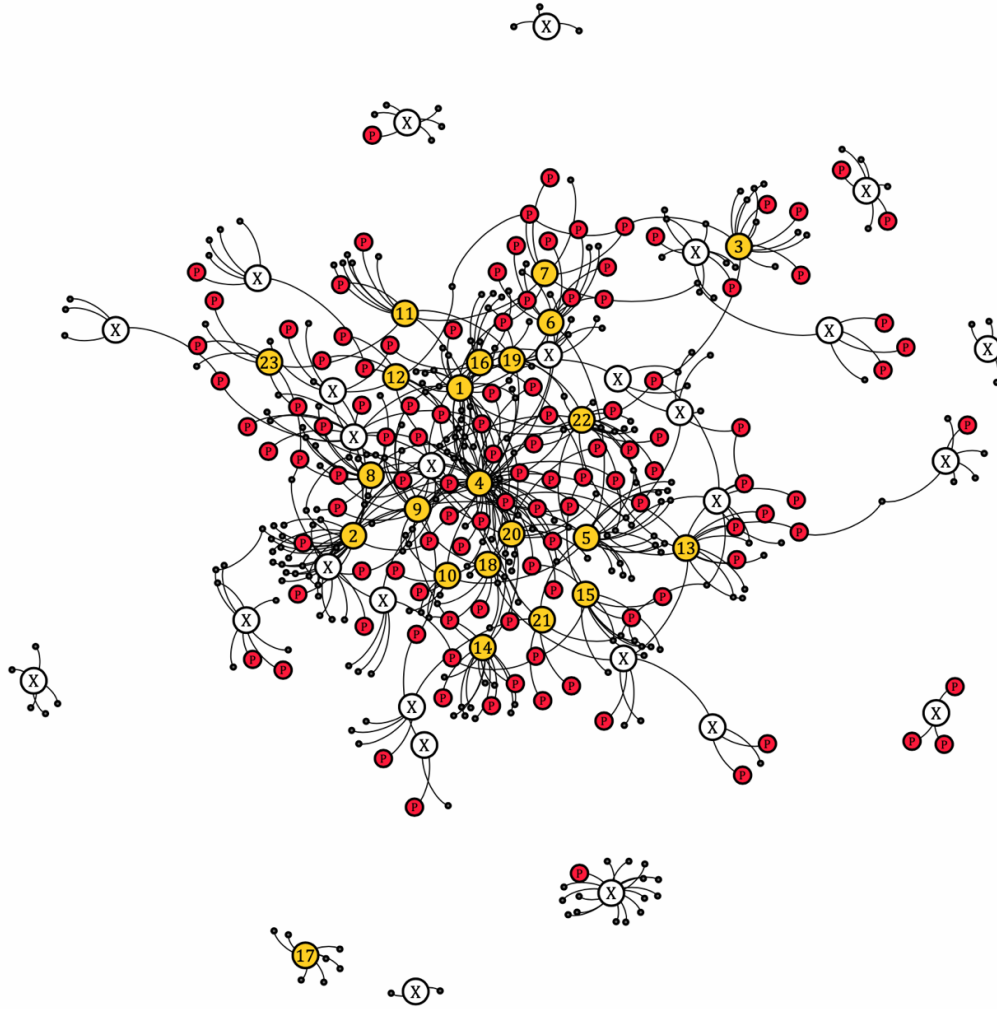


Figure 1: These represent cumulative networks as of January 1, 2020, tracing back to the foundation of the Republic of Korea. Numbers 1 to 23 correspond to the 23 chaebol families that survived, including: (1) Samsung; (2) Hyundai; (3) SK; (4) LG; (5) Lotte; (6) Hanjin; (7) Hanhwa; (8) Doosan; (9) Keumho; (10) Dongbu; (11) Daelim; (12) Dongyang; (13) Hyosung; (14) Dongkuk; (15) Kolon; (16) Youngpoong; (17) Daesung; (18) Daesang; (19) Kyongbang; (20) Taekwang; (21) Amore-Pacific; (22) Samyang; and (23) Samhwan. 'X' indicates the 29 chaebol families that declared bankruptcy. The threshold for survival was the ability to endure the Asian Financial Crisis of 1997 and remain operational as of 2010. The smaller, grey nodes represent other smaller corporate owners. P (red nodes) represent politicians.

Politicians: Defined as high-profile public servants whose children married into chaebol families. Following Han's categorization, politicians were sub-classified into eight groups: presidents, members of the national assembly, ministers/vice-ministers, city mayors and governors, top leaders in central authorities (e.g., national tax services, national intelligence),

top public servants in central government (e.g., ambassadors), members of provincial assemblies, and lower-tier public servants. For this study, only the first six categories were considered "politicians," while the last two were included in the "others" category to maintain a focus on significant political connections.

Corporate Owners: This category includes in-laws who are associated with the 52 historic chaebol families or other non-chaebol corporate owners that formed marital ties with chaebol families or their in-laws. A marital partner was classified as a corporate owner if their parent owned a corporation, including non-manufacturing companies like newspaper firms. Chaebol families themselves are a subset of corporate owners. Exclusions from this category were top executives, financiers, or individuals who became CEOs without verifiable corporate affiliations in public records. Entrepreneurs without verifiable corporate names, such as known loan sharks, were also excluded to ensure data accuracy.

Non-Network Marriages: Marriages where the partner was neither from a political family nor from a family that owned a corporation were classified as non-network unions. This category served as a control group to assess the prevalence and impact of network marriages within the chaebol families.

A network was constructed by mapping out the direct in-law relationships and shared in-laws among the chaebol families, focusing on the bloodlines of the founders of the 52 historical chaebols. Descendants of these founders were traced to define each chaebol family's lineage. For families outside the chaebol group, the parental background determined the family background of the bride or groom. This approach acknowledges that corporate families, particularly surviving chaebol families, have maintained their legal identity as controlling entities over generations, unlike political figures who typically do not pass on their positions.

All edges in the network were weighted equally, based on the premise that each instance of a network marriage represents a potential resource or strategic alliance for the family businesses, regardless of its frequency or proportion. Multiple marital events by bloodline descendants often resulted in a node (family) creating multiple edges to other nodes, reflecting the complexity and depth of inter-family relationships.

This allowed for the identification of key nodes over time and highlighted changes in the network's structure, particularly the increasing involvement of politicians in the core network during the 1960s and 1970s.

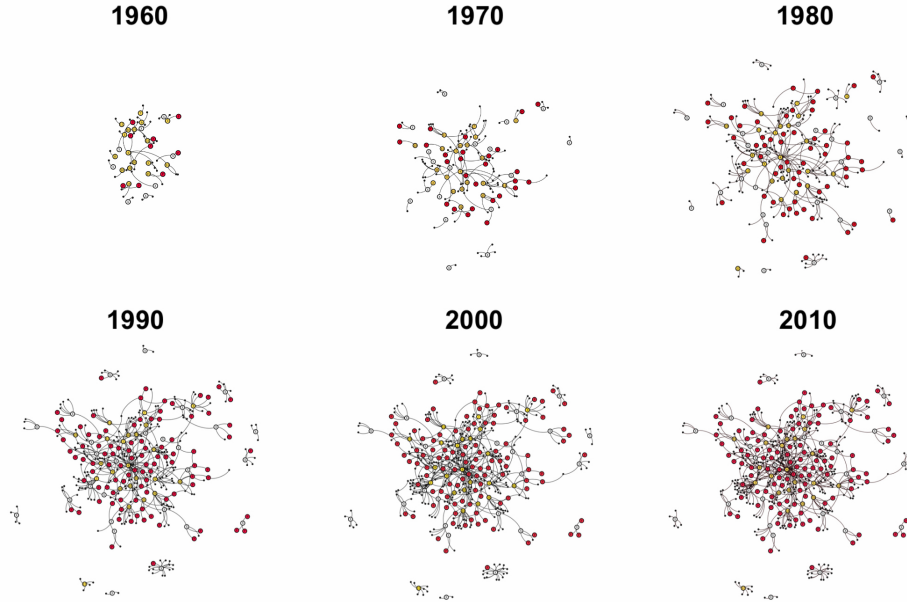


Figure 2: This scanned image illustrates the decadal evolution of the core elite network depicted in Figure 1 for 2020. Nodes 1 to 23 correspond to the 23 chaebol families that survived, while 'X' represents the 29 chaebol families that went bankrupt. The threshold for survival was enduring the Asian Financial Crisis of 1997 and remaining operational until 2010. The marriages involving 'X' occurred before their bankruptcies. Smaller grey nodes represent other, smaller corporate owners, while 'P' (red nodes) represent politicians. As observed on January 1, 1990, in the bottom left, the overall network structure remained relatively stable over the following two decades, reflecting the cessation of new political figures entering as in-laws after South Korea transitioned to a democratic regime, ending the military era by the 1980s.

2. Event study

The study utilized a standard event study approach, following the procedures outlined in Campbell et al. (1997), to analyze whether the stock market responds to the controlling families' marital events by reflecting investors' perceptions of network marriages in stock prices. The objective is to determine if such events lead to statistically significant abnormal returns for the family-owned firms listed on the Korea Stock Exchange (KOSPI).

The financial dataset comprises the types and dates of marriages involving the 52 chaebol families and the daily stock prices of their associated firms around the timing of these marriages. Initially, 643 marital records were documented, including events where the exact wedding year was interpolated based on other family-specific information to visualize the historical network fully. However, precise dates are essential for event study analysis to align the events with daily stock returns accurately.

The dataset used in the event study meets three specific criteria:

Temporal Availability of Stock Data: Only marriages that took place after January 5, 1981, are included, as this is the date from which the KOSPI and daily return series for individual stocks are available. This criterion reduces the sample to 291 events out of the initial 643 marriages.

Association with Listed Firms: At the time of the marriage, the parents of either or both spouses must have had family ownership of, or managerial control over, subsidiary firms of

business groups listed on the KOSPI. Identifying the appropriate firm among multiple subsidiaries was facilitated by news reports that provided precise titles and roles of the parents within their family-controlled groups. The flagship company with the largest market capitalization was tracked if a parent was a chairman of a business group. If a parent was not a chairman, their specific corporation was tracked. In cases where the parent's firm was not clearly stated, additional news sources or current ownership information from the Korea Financial Supervisory Service and the Korea Fair Trade Commission (as of 2015) were used to infer the most likely listed firm.

Verification of Event Dates: Every marital event included in the analysis had official news coverage at the time of the marriage, as verified by newspaper archives. For events where the wedding was reported more than a week prior to the actual date (25 cases in total, with 20 network marriages and 5 ordinary cases), the event date was adjusted accordingly.

Applying these qualifications resulted in a final sample of 80 marital events involving controlling families and 106 listed firms. Table 1 summarizes the distribution of these events by the type of in-law relationship:

Table 1. Sample Distribution by Type of In-Law Relationship

Types of In-Laws	Number of Events
Network (79 events)	
- Political	11
- Corporate	
<i>SME with Chaebol</i>	14
<i>Chaebol with SME</i>	26
<i>Chaebol with Chaebol</i>	28
Non-Network (27 events)	27

Note: "SME with Chaebol" refers to small or medium-sized enterprises (SMEs) whose controlling families became in-laws with chaebol families. "Chaebol with SME" refers to chaebol families whose controlling members married into SME families. "Chaebol with Chaebol" refers to marriages between controlling families of comparable chaebol firms.

In line with the efficient market hypothesis, the event date ($t = 0$) is defined as the next trading day following the actual wedding date or the first day the wedding was publicized, whichever occurred earlier. This approach accounts for the possibility that the stock market reacts to initial news coverage rather than waiting for the actual wedding. The assumption that investors respond promptly to such news is tested as part of the analysis.

The event study involves two main steps: identifying cumulative abnormal returns (CARs) and testing their statistical significance. Daily stock returns for the related firms were calculated, adjusting for dividends, stock splits, and distributions. The abnormal return for

each firm is the difference between its actual return and the expected normal return during the event window. These differences are summed over the event period to compute the CAR.

Two models were employed to estimate normal returns:

Market Model: This model hypothesizes a linear relationship between the market index and individual stock returns, similar to a simplified Capital Asset Pricing Model with a zero risk-free rate. For each of the 106 firms, a regression of the firm's stock returns on the KOSPI index returns was conducted over the estimation period preceding the event window. The estimated parameters (alpha and beta coefficients) were then used to calculate expected returns during the event window.

Mean-Adjusted Model: This model calculates the normal return as the average return over the estimation period, without assuming a specific relationship with the market index. It serves as a robustness check against the market model's assumptions.

The estimation periods used were 60 days and 225 days prior to the event window. Using both models enhances the reliability of the results by accounting for different assumptions about expected returns.

Multiple event windows were analyzed to capture the possibility that stock prices react to a wedding announcement before or after the event date. The event windows considered were 7 days, 11 days, 21 days, and 31 days around the event date. Analyzing different window lengths helps balance the trade-off between Type I and Type II errors: A **shorter window** may miss the full impact of the event, increasing the risk of a Type I error (incorrectly rejecting a true null hypothesis). A **longer window** may include unrelated market movements, increasing the risk of a Type II error (failing to reject a false null hypothesis).

The CARs over these windows were calculated for each firm and then aggregated to assess the average effect. Statistical significance was tested using standard t-tests, accounting for the cross-sectional variability of abnormal returns. The use of multiple events in the sample helps reduce the standard error, allowing for more precise estimation of the average effect.

Results

1. *Testing Hypothesis 1*

In the marriage network, the importance of politicians for in-laws appears to decline due to the new regime's move towards democratic and liberalised policies that typified the post-industrialised era. In place of political alliances through marriage, corporate families become more prominent. In this light, the effect of regime change on network marriage brings into question the long-held view within the chaebol literature that network marriage remained the primary way in which the chaebol families exerted political control. Rather, this finding supports the top-down perspective regarding the transformation of the political economy, away from the coordination between the chaebols and state-led initiatives (Chang et al. 1998). Indeed, to preserve their prominence within the new post-industrialised order, the chaebols were seen to embrace new types of human networks. Whilst intriguing, to test this novel interpretation for its statistical significance. We carry out a chi-square test on the proportion of politicians to corporate owners in the network marriage dataset before and after the introduction of democracy.

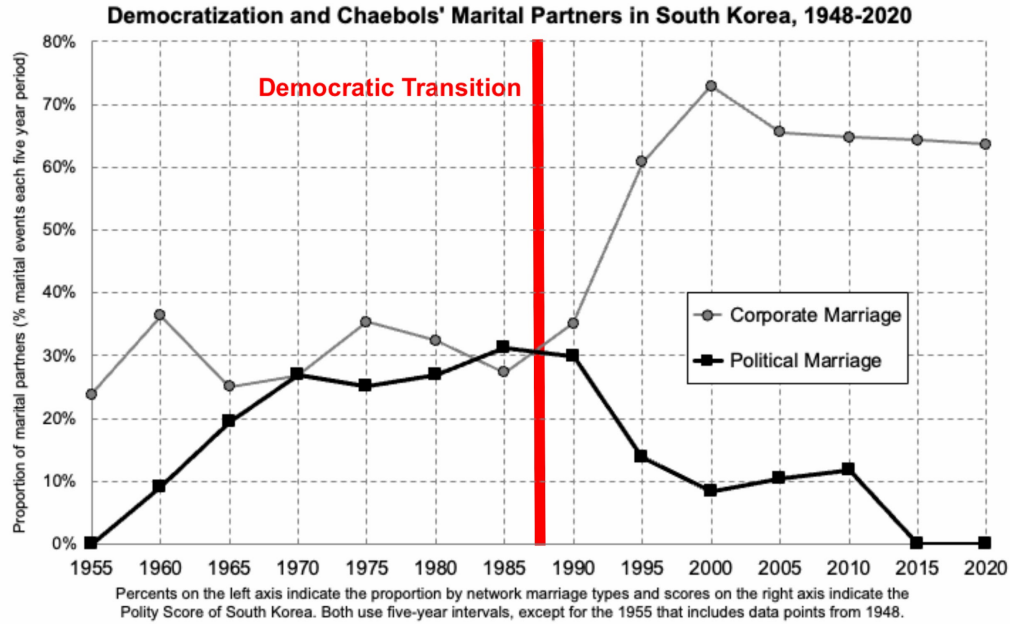


Figure 3: Each data point (except for 1955) represents a five-year interval. To illustrate, the 2020 data point reflects the dataset for 2011-2020. When updated for 2020, there was no material change in the demise of political marriage, from null. The 1955 data point reflects 1948-1955, beginning with the modern foundation of South Korea as a sovereign state, and taking into account the business inactivity during the three years of the Korean War. This historical interpretation on the network marriage dataset highlights the epochal nature of politicians as in-laws in the *chaebol* network, specific during the state-led industrialisation period (1961-1987).

The year 1988 is identified as the breaking point in this study. Firstly, the catalyst for democratic change in the country was the ‘June Democracy Movement’ of 1987, where the public successfully resisted an attempt by the military government to appoint its protégé as the next president without a national election. A second important factor was the stark policy change in corporate governance that was initiated by the Chun government in 1987. These initiatives sought to regulate the chaebols to what was then an unprecedented level. This threshold, so to speak, is characterised on one side by the state-led industrialisation initiatives under the dictatorial regimes and, on the other, by the economic liberalisation policies installed by subsequent democratically elected governments from the 1990s onwards.

Based on these classifications, and this historical periodisation, Figure 3 illustrates the network marriage portfolio of chaebol families since the modern foundation of the Republic of Korea. This Figure is based on all 643 marital events from 52 families, including the bankrupt chaebol families.

A visual summary in Figure 3 describes those political marriages had a dramatic turn: the 1960s, 1970s, and 1980s were crucial decades to the emergence of politicians as in-laws. This inflow of informal political networks ceased in the 1990s.

Table 2 summarizes the results of the chi-square test on the proportion of politicians to corporate owners in the network marriage dataset before and after the introduction of democracy. The results highlight a dramatic change in frequency of network marriages, between corporate owners and high-profile politicians, from before the late 1980s and after. The null is rejected at one percent level of significance, suggesting a meaningful difference in the pattern of network marriages before and after the regime change of the 1990s.

Table 2. The change of in-law profiles in Korean chaebol families from dictatorial to democratic regimes.

Panel A: Based on all 52 chaebol families					
		Spouse			Total
		Corporate	Other	Politicians	
Regime	Democracy	92	37	12	141
	Dictatorship	144	248	110	502
	Total	236	285	122	643
Panel B: Based only on 23 controlling families active at the time of the study (as of 2015)					
		Spouse			Total
		Corporate	Other	Politicians	
Regime	Democracy	77	32	11	120
	Dictatorship	108	135	70	313
	Total	185	167	81	433

Source: Author's calculations, based on the network marriage dataset.

Note:: no significant difference between the proportion of politicians to corporate owners before and after the introduction of democracy.

2. Testing Hypothesis 2

Within the samples described in Table 1 with precise dates, Table 3 shows that 16 sub-samples that have announced dates preceding actual wedding dates exhibit reactions on the announced date. In the instances where announcements predated the actual wedding, the Korean stock market responded significantly to network marriages only on the announced date of the wedding (Column(1a)) and not on the actual date (Column(2a)). This result is consistent with the working hypothesis that the market would, if at all, respond to the initial timing of the news. Also, the market did not respond to ordinary marriages for either date (Columns (1b) and (2b)). This is consistent with the network hypothesis of marriage that the market would respond only to network marriages.

Table 3. Comparison of market reactions between announced and actual wedding dates.

	CAR on the Announced Dates		CAR on the Wedding Dates	
	(1a) Network	(1b) Non-network	(2a) Network	(2b) Non-network
Market Model (60 days)				
CAR (-3,+3)	3.66 % *	- 2.46 %	- 0.17 %	1.16%
t-statistic	1.84	- 0.93	-0.09	0.44
(number of events)	20	5	20	5

Source: Author's calculations, based on the 60 trading days with the market model.

Note: *p<0.10

Figure 4 presents the CARs from 10 days prior to the event date (-10) to 10 days after (+10). It can be seen that only network marriages get a positive response from the investors, and non-network marriages do not get any response. Firms associated with non-network marriages underperform than those associated with network marriages in the observation period: 4 days before the event (-4) to 10 days after the event (+10). Moreover, CAR for the firms associated with network marriages continues to rise throughout the 10 days after the

event date, and thus, this pattern substantiates the argument that network marriages have economic significance for family firms.

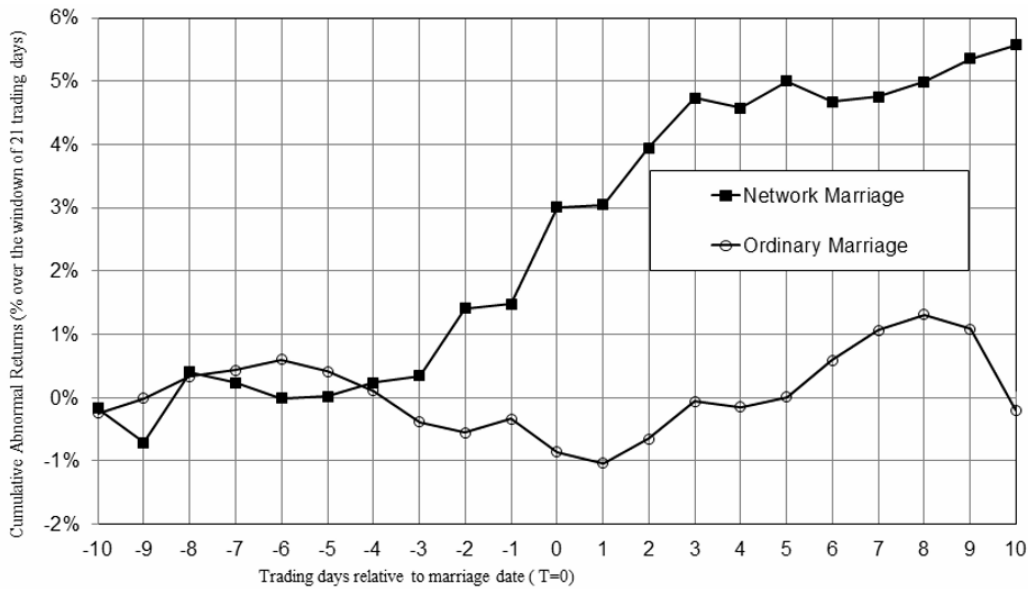


FIGURE 4: THE STOCK MARKET REACTION (CAR) ON THE EVENTS OF MARRIAGE

Source: Author's illustration by a mean-adjusted model, based on 60 trading days.

Table 4 reports the results of univariate tests of the statistical significance of CARs by types of in-laws. The results corroborate the findings from Figure 5. For consistency checks, four-event windows are analysed (Columns (1) to (4)) on three different model specifications (Models (1) to (3)). Model (1) is the market model whose parameters are estimated over 60 trading days. Model (2) is the mean-adjusted model and, for the estimation period, uses the average returns over 60 trading days as the normal return. Model (3) is a further market model based on 225 trading days. In Panel A, for all three different model specifications (Models (1) to (3)), the CAR for network marriage is positive and statistically significant over all event windows. However, the 31-day (from -15 to +15) CAR for network marriages in Model (3) is statistically insignificant. Consistent with the network hypothesis, CARs associated with ordinary marriages remain insignificant in all model specifications over all event windows. Moreover, the differences between CARs for network and non-network marriages are positive and statistically significant over all event windows and models specified in Panel A.

Panel B shows the decomposition of network marriages into two types—corporate and political networks. For Model Specification (1), the respective CAR for either type of network marriage is positive and statistically significant over two event windows. The results of model (2) are especially sensitive to abnormal returns. They, furthermore, register the significant CAR from both types of network throughout all event windows.

However, a further decomposition within corporate types of networks marriages (i.e., an in-law of a chaebol being a corporate owner) offers an additional insight (Panel C). I trace stock price movements for three different types of information: (1) the return experience of a nouveaux firm (i.e., small family firms controlled by in-laws of Korean chaebols) when its controlling family networked with (i.e., became an in-law of) a chaebol family; (2) the return experience of a chaebol firm when its controlling family networked with a nouveaux

family; and (3) the return experience of a chaebol firm when its controlling family networked with yet another chaebol family.

Bunkanwanicha et al. (2013) demonstrate that nouveaux firms may benefit most from network marriages with larger-scale firms. This is because of the likelihood that these controlling families (as nouveaux riches) would have garnered fewer business connections than the established controlling families. As such, the augmentation of network resources would make a more decisive impact on the prospects of their family firms. Alternatively, the old moneyed families would have already accumulated network resources specific to their chaebol-affiliated firms. As such, the additional value from networking with other established families may be relatively small. In this context, the marginal values of network marriages are likely to be greater for nouveaux families or at least perceived so by investors than for the established chaebol families.

The positive return experience from corporate marriage includes both experiences by either chaebol themselves or nouveaux firms. Table 4 (Panel C) confirms that nouveaux firms gained the most in terms of abnormal return experiences, and this is especially evident in the shorter 7-day event window (from -3 to +3) and 11-day event window (from -5 to +5). The CAR for nouveaux firms is identified at above 10 percent, significant at one percent level of significance. This separation of corporate marriages affords a deeper understanding of the source of abnormality in this type of network marriage: nouveaux families. The corporate marriages between two large-scale chaebol families fail to demonstrate a positive, statistically significant return in Panel C Table 4 for any event window period. In other words, it was political rather than corporate networks that have consistently rewarded the firm values of existing chaebols in this account.

Table 4. Event Study: Univariate tests on marriage events by types of in-laws

Cumulative Abnormal Returns (Treatment Group)				
CAR	(-3,+3)	(-5,+5)	(-10,+10)	(-15,+15)
Panel A:	(1)	(2)	(3)	(4)
(1) Market Model (60 days)				
Network (79 obs.)	2.90%*** (0.009)	2.92%*** (0.011)	3.35%** (0.015)	3.13%* (0.018)
Ordinary (27 obs.)	-0.88% (0.010)	-2.00% (0.013)	-1.71% (0.018)	-0.92% (0.021)
Difference	3.78%*** (0.009)	4.92%*** (0.011)	5.06%*** (0.016)	4.05%** (0.019)
(2) Mean-Adjusted (60 days)				
Network (79 obs.)	4.21%*** (0.011)	6.45%*** (0.013)	5.70%*** (0.018)	5.37%** (0.023)
Non-network (27 obs.)	-0.09% (0.013)	-1.07% (0.016)	-0.16% (0.022)	0.54% (0.027)
Difference	4.59%*** (0.011)	7.52%*** (0.014)	5.86%*** (0.019)	4.83%** (0.024)
(3) Market Model (225 days)				
Network (79 obs.)	2.77%*** (0.008)	2.60%** (0.010)	2.88%** (0.014)	2.39% (0.017)
Non-network (27 obs.)	-0.60% (0.012)	-1.60% (0.015)	-1.31% (0.021)	-1.28% (0.025)
Difference	3.37%*** (0.009)	4.20%*** (0.012)	4.19%*** (0.016)	3.68%*** (0.020)

Panel B:**(1) Market Model**

Corporate (Network)	2.92%***	2.92%**	2.65%	2.43%
(68 obs.)	(0.010)	(0.012)	(0.017)	(0.020)
Political (Network)	2.77%	2.91%	7.73%**	7.47%*
(11 obs.)	(0.018)	(0.023)	(0.031)	(0.038)
Ordinary	-0.88%	-2.00%	-1.71%	-0.92%
(27 obs.)	(0.010)	(0.013)	(0.018)	(0.021)

(2) Mean-Adjusted Model

Corporate Owners (Network)	4.46%***	5.04%***	5.00%**	4.72%*
(68 obs.)	(0.012)	(0.015)	(0.02)	(0.025)
Political (Network)	4.72%**	6.18%**	10.05%**	9.37%**
(11 obs.)	(0.023)	(0.028)	(0.039)	(0.047)
Non-network	-0.09%	-1.07%	-0.16%	0.54%
(27 obs.)	(0.013)	(0.016)	(0.022)	(0.027)

Panel C:**(1) Market Model**

Nouveaux Firms with Chaebol In-law	11.26%***	11.00%***	6.49%	6.90%
(14 obs.)	(0.025)	(0.031)	(0.043)	(0.052)
Chaebol Firms with Nouveaux In-law	0.94%	1.19%	1.50%	4.05%
(26 obs.)	(0.013)	(0.016)	(0.023)	(0.028)
Chaebol Firms with Chaebol In-law	0.59%	0.49%	1.79%	-1.31%
(28 obs.)	(0.016)	(0.020)	(0.028)	(0.034)

(2) Mean-Adjusted Model

Nouveaux Owners with Chaebol	13.18%***	14.89%***	9.49%*	9.65%
(14 obs.)	(0.028)	(0.036)	(0.049)	(0.06)
Chaebol Owners with Nouveaux	2.66%	5.56%***	5.80%**	5.79%
(26 obs.)	(0.017)	(0.021)	(0.028)	(0.036)
Chaebol Owners with Chaebol	1.77%	0.36%	2.01%	1.27%
(28 obs.)	(0.019)	(0.024)	(0.033)	(0.041)

Source: Author's calculations (based on the 60 trading days and noted otherwise).

Note: Standard errors in parentheses. *p < 0.10; **p < 0.05; ***p < 0.01.

B. Robustness

In this Section, we conduct a placebo test to reinforce the argument that the results in Table 4 are not purely random. To address the potential type I and type II errors, I use the following time windows for CARs: a 7-day event window (from -3 to +3), an 11-day event window (from -5 to +5), a 21-day event window (from -10 to +10), and a 31-day event window (from -15 to +15). The robustness necessitates an additional approach to warrant that the statistical significance was not a spurious result drawn from the coincidental calibration of the event windows or other devices. A possible approach would be to run an OLS regression to control all possible rival explanations across the samples. However, the sample size is not large enough to afford this approach, and it may still fail to account for the firm (and family fixed) effects that would affect the results. An advantage of the event studies analysis is that the research design compares the event period sample with its samples from the estimated period. This means that the cumulative abnormal return is already a product of experimental control (per unit of the event).

Before claiming the non-randomness in the statistical results, the test's sensitivity is another issue that needs to be checked. Models (1) to (3) in Table 4 respond to the same events in varying degrees depending on the model specifications. This suggests type I error. To overcome both issues, this part conducts a placebo test. To incur minimum differences, daily returns for each firm are drawn from a year before or a year after by randomisation. The aim is to consider the potential seasonality in daily returns. Taking this approach, family or firm fixed effects would be mitigated, and one would not have to replace unobtainable information with crude proxies that can suppress meaningful results. Table 5 illustrates the results for the control group. The tests do not respond to the absence of marital events. Model (2) identifies little noise at the local level but maintains no response throughout.

This exercise suggests that the evolution of network marriage was not only a matter of assortative matching since it also affected firm values from an investor perspective. The study suggests that the controlling families of the Korean chaebols may not just be large shareholders. Ultimately, they are the controlling families that affect the firm values significantly with their actions, even when they do not sit as CEOs of their subsidiaries. Given that the market reacted to a certain set of network marriages, with the significantly positive CAR, a marriage of the controlling families may indicate an outlook for corporate governance of the firm and their business groups. Alternatively, a network marriage itself may be read as useful resource specific to the firm.

Table 5. Placebo Test

Cumulative Abnormal Returns (Control Group)				
CAR	(-3,+3)	(-5,+5)	(-10,+10)	(-15,+15)
Panel A:				
(1) Market Model (60 days)	(1)	(2)	(3)	(4)
Network (79 obs.)	0.37% (0.009)	0.02% (0.011)	0.84% (0.015)	0.23% (0.018)
Ordinary (27 obs.)	0.21% (0.014)	0.56% (0.017)	0.21% (0.023)	0.75% (0.028)
(2) Mean-Adjusted Model (60 days)				
Network (79 obs.)	-0.38% (0.010)	-2.00% (0.012)	-0.33% (0.017)	-2.16% (0.021)
Ordinary (27 obs.)	-0.01% (0.016)	2.76% (0.020)	-0.22% (0.028)	-0.21% (0.034)
(3) Market Model (225 days)				
Network (79 obs.)	0.81% (0.009)	0.08% (0.011)	0.84% (0.016)	0.29% (0.019)
Ordinary (27 obs.)	-0.11% (0.012)	0.21% (0.015)	-0.61% (0.020)	-0.52% (0.024)
Panel B:				
(1) Market Model				
Corporate (Network) (68 obs.)	0.50% (0.010)	0.08% (0.012)	1.15% (0.017)	0.40% (0.021)
Political (Network)	-0.49%	-0.38%	-1.03%	-0.88%

(11 obs.)	(0.015)	(0.018)	(0.025)	(0.031)
Ordinary	0.21%	0.56%	0.21%	0.75%
(27 obs.)	(0.014)	(0.017)	(0.023)	(0.028)
(2) Mean-Adjusted Model				
Corporate (Network)	-0.47%	-1.73%	-0.58%	-2.57%
(68 obs.)	(0.011)	(0.014)	(0.019)	(0.024)
Political (Network)	0.19%	1.03%	1.18%	0.37%
(11 obs.)	(0.019)	(0.024)	(0.033)	(0.040)
Ordinary	-0.01%	2.76%	-0.22%	-0.21%
(27 obs.)	(0.016)	(0.020)	(0.028)	(0.034)
Panel C: (1) Market Model				
Nouveaux Firms with Chaebol In-law	-0.57%	-2.70%	0.38%	7.38%
(14 obs.)	(0.024)	(0.031)	(0.042)	(0.051)
Chaebol Firms with Nouveaux In-law	1.35%	2.62%	3.08%	-2.21%
(26 obs.)	(0.014)	(0.018)	(0.025)	(0.030)
Chaebol Firms with Chaebol In-law	0.26%	-0.88%	-0.26%	-0.66%
(28 obs.)	(0.016)	(0.020)	(0.028)	(0.034)
(2) Mean-Adjusted Model				
Nouveaux Firms with Chaebol In-law	-0.61%	-1.73%	-0.58%	-2.57%
(14 obs.)	(0.026)	(0.014)	(0.019)	(0.024)
Chaebol Firms with Nouveaux In-law	0.22%	1.73%	0.24%	-6.02%*
(26 obs.)	(0.016)	(0.020)	(0.027)	(0.034)
Chaebol Firms with Chaebol In-law	-1.03%	-3.94%*	-2.39%	-4.77%
(28 obs.)	(0.018)	(0.023)	(0.032)	(0.039)

Source: Author's calculations (based on the 60 trading days and noted otherwise).

Note: Standard errors in parentheses. *p < 0.10; **p < 0.05; ***p < 0.01.

Discussions

This paper provides an analytic narrative to demonstrate the long-run dynamics of a particular channel of political connection. The documentation suggests an epochal rise in the political marriage of these corporate families during the state-led industrialisation period and its notable decline thereafter. Such network behaviour was not only a matter of assortative matching since it also affected firm values from an investor perspective. While it covered only dozens of Korean business families, these 52 family names have controlled de-facto nearly all historic top chaebols to date.

Moreover, the mere subset of top ten controlling families in the sample continue to control about half of the country's market capitalization and the 4/5th of net profits in Korea's primary index, KOSPI (as of 2018.4, based on KRX dataset) to the present. Thus, for a very large stake in the Korean economy, political networks appear to have mattered a lot. In this context, investors have responded even to the seemingly irrelevant, informal networks of marriage events, a proxy of political networks We employed for this study. Building upon the prior implication on the firm valuation of political rents (Fisman (2001)), it is noteworthy that a channel of political connection may not directly translate to the perceptible level of corruption; for the case of South Korea, whereas the political network of businesses through marriage has largely disappeared over the horizon of this study, the perceived corruption in South Korea maintains mixed results since the 1990s (27th out of 54 countries in 1996) to the 2010s (51st out of 180 countries in 2017). This suggests that other channels of political networks are likely to be at play, awaiting a more authentic representation of underlying density for political networks. Another proxy may be modelled after a more

formal channel, such as billable hours of these business groups to top Korean law firms with high-profile retired officials. We leave this to future research.

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