The Value of Marriage to Family Firms

Pramuan Bunkanwanicha, Joseph P.H. Fan, and Yupana Wiwattanakantang[1]

Journal of Financial and Quantitative Analysis, forthcoming

[*]Bunkanwanicha, pbunkanwanicha@escpeurope.eu, ESCP Europe, 79 avenue de la République 75011 Paris, France; Fan, pjfan@cuhk.edu.hk, The Chinese University of Hong Kong, Faculty of Business Administration, Shatin, N.T., Hong Kong; Wiwattanakantang, yupana@nus.edu.sg, National University of Singapore, Business School, Mochtar Riady Building, BIZ 1 2-7, 15 Kent Ridge Drive, Singapore 119245. We thank for their helpful comments the editor and anonymous referee as well as Franklin Allen, Sridhar Arcot, Morten Bennedsen, Andrew Ellul, Radhakrishnan Gopalan, Masaharu Hanazaki, Clifford Holderness, Denis Gromb, Jonathan, Karpoff, Meziane Lasfer, Ronald Masulis, Vikas Mehrotra, Randall Morck, Harold Mulherin, Jeffrey Pontiff, Andreas Savva, Jordan Siegel, Sheridan Titman, Yishay Yafeh, David Yermack, the participants at the seminars at the Chinese University of Hong Kong, Dauphine University, Harvard Business School, Thammasat University, Hitotsubashi Univeristy, Osaka University, Université de Bourgogne, the 2007 LBS/ECGI/ESRC conference, the 2nd EMG conference, the 2008 FIRS conference, and the 2009 WFA meeting. We acknowledge the financial support from the AcRF Tier 1 Funding from the Ministry of Education of Singapore (Grant number R-315-000-086-133), the Chair KPMG/ESCP Stratégie des risques et performance, the Grant-in-Aid for Scientific Research from the Ministry of Education, Culture, Sports, Science, and Technology of Japan, Heiwa Nakajima foundation, and the Shimomura Fellowship program.

Abstract

This paper presents the first empirical evidence showing that the marriage of a member of the controlling family adds value to public corporations. The results, based on a uniquely comprehensive dataset from Thailand, show that the family firm's stock price increases when the partner is from a prominent business or political family. Abnormal returns tend to be higher for firms whose operation depends on extensive networks. In contrast, marriages to ordinary citizens are not associated with any abnormal returns. These findings are generally supportive of the value of networks in general and marriage in particular.

Then will we give our daughters unto you, and we will take your daughters to us, and we will dwell with you, and we will become one people [Genesis 34:16].

I. Introduction

Family firms are a common feature of business all over the world.[1] In a family firm, ownership and control are typically intertwined, as the founding family with a dominant ownership stake often participates in management and policymaking. Indeed, the controlling family has such a strong influence that the success or failure of the firm is often shaped by the family's internal dynamics (e.g., Bennedsen et al. (2007), (2010)).

Given the importance of family firms and those who control them, it is not surprising that business historians often stress the importance of marriage to the fate of corporations. For instance, James (2006) argues that the success of European business dynasties such as the Wendels, Falcks, and Haniels has depended in part on dynastic marriage strategies. Along the same lines, Landes (2006), who studied 11 business dynasties in Europe, Japan, and America from the 17th century to the present, goes so far as to suggest that marriage influences the growth, direction, and even survival of family businesses.

Nonetheless, beyond such anecdotes and case studies, there is little empirical evidence on the relevance, or lack thereof, of marriage for family firms. This paper begins to fill this gap in our knowledge by studying the marriages of big business families in Thailand. We choose Thailand, in part, because it offers an unusual news source for the marriages of prominent citizens—a daily column on high society weddings is published in the country's most widely read newspaper, with at least one million copies sold daily. This source and the setting of marriages in Thailand also fit well

[1]See, for example, Faccio and Lang (2002), Claessens et al. (2000), Anderson and Reeb (2003), and Villalonga and Amit (2006).

with the basic requirements of an event study. First, the newspaper's reporting policy reduces any concerns about selection bias. It collects and publishes wedding news in a systematic and comprehensive manner, which is independent of the families' interests. Second, the wedding information is timely, as wedding news is typically published a day or so after the wedding reception. Third, traditional Thai values make the wedding itself the genuine event of marriage, as cohabiting couples are regarded as taboo. Common practice is to have the engagement and the wedding take place on the same day, which reduces the chances of news leakages. Finally, the wedding date is typically chosen by the family's astrologer, which makes the event date exogenous to other important corporate decisions such as earnings announcements.

Our analysis is based on every wedding involving a big business family during 1991-2006, a total of 131 events. Our most striking finding is that marriage of a member of the controlling family adds value to public corporations. The family's publicly-traded stock experiences a positive return only when a family member is marrying a person from a prominent family with a business or political background. There is no positive or negative reaction when the partner is chosen from an ordinary family, as might otherwise be the case with a movie star, beauty contest winner, or some other type of celebrity. Specifically, marriages that connect family firms to other prominent families (henceforth called 'network marriages') are associated with an 11-day (around the wedding) cumulative abnormal return that is 2.3% higher than when marriages to ordinary families occur (henceforth called 'non-network marriages'). Strikingly, 49 out of the 52 families whose business operations depend on connections—concession, property, and construction businesses—engage in network marriages.

In addition, investors react positively to marriages that could combine the bride and groom's family firms to form horizontal or vertical alliances. For example, if one family owns an automobile firm and the other owns a tire firm, investors react positively to the marriage, perhaps because they

expect closer business ties that will in turn increase firm value.

Overall, our results are consistent with a network hypothesis: marriage connects the son of one family with the daughter of another. Marriage, therefore, cements a relationship between the families and, by extension, sets up alliances for their firms on a secure and long-term basis.[2] Family alliances may result in some distribution of capital (Balmori et al. (1984)), information (McMillan and Woodruff (1999)), know-how (Ingram and Simons (2002)), and access to state contracts (Morck et al. (2005)).

Our work adds to a growing body of research that shows that the dynamics, preferences, and inheritance norms of the founding family affect corporate policies (e.g., DeAngelo and DeAngelo (2000), Bertrand and Schoar (2006), Ellul et al. (2010)). The main departure of this paper from the existing literature is in showing that the founding family's members are a unique resource crucial to the firm's competitiveness. Family members can contribute to the firm value by creating connections via marriage, even when they are not directly involved in the firm. Family members as a resource are not identified in the literature, which often focuses on resources such as management techniques, employees, ideas, and patents (Rajan and Zingales (2001)).

Our results also support existing hypotheses from the economic and finance literature on the economic value of marriage and the value of networks. In particular, marriage creates a trustworthy relationship between the couple and their related families (Becker et al. (1977)). Family networks can therefore be especially valuable to firms in developing economies where economic and legal institutions are weak. As La Porta et al. (1999) and Burkart et al. (2003) contend, in these countries

[2]The close relationship between Ford Motor and Firestone is a fine example. As highlighted by Carroll and Buchholts (2000), the two companies have 100 years old relationship. It was one of the oldest partnerships in the U.S. history, initially forged through the personal relationships of Harvey S. Firestone and Herry Ford. Further, it was cemented by marriage of their grandchildren, William Clay Ford and Martha Parke Firestone.

family ties solve a number of governance problems that would otherwise impede economic transactions. Expanding a network can expand the potential business range of a firm.

A related, often-cited hypothesis is that marriages involving family firms can help with succession. A twentieth-century Hambros Bank Chairman, for example, once said, “our job is to breed wisely” (Chernow (1990), p. 20). From this perspective, marriage can ensure that wealth is handed down to the next generation by bringing in talented new sons (-in-law) when families lack capable heirs—a strategy pursued by the Japanese for a thousand years (Mehrotra et al. (2011)). This inheritance practice is apparently unique to Japan and is unthinkable for the Thai business families who are predisposed to succession through the direct male line. While we perform a few tests on alternative hypotheses, our results cannot absolutely rule out that marriage is valued in family firms, because it helps with other aspects of succession such as encouraging young men to settle down and take their responsibilities more seriously. Long-term time series data and a suitable methodology are needed to conduct such analysis.

The paper is organized as follows: Section II provides the institutional background of marriage and family ties in Thailand and outlines the conceptual framework of marriages and networks; Section III describes the data and methodology; Section IV reports the empirical results; Section V examines alternative hypotheses for these potential sources of gain; Section VI conducts a series of robustness checks; Section VII presents network marriages from around the world; and Section VIII concludes the paper.

II. Background and Hypothesis Development

A. The Economy, Legal Institutions, and Business Environment

In terms of economic development, Thailand is representative of emerging economies. The

country's GDP growth during the period of our study, 1991 to 2006, was 4.8% and ranked tenth in the world. The country's average per-capita GDP during this period, in constant 2000 US$, was about $1,984. Thailand also fits the profile of a typical emerging country with less effective legal institutions. If we measure the efficiency and effectiveness of the legal system using an index calculated by Berkowitz, Pistor and Richard (2003)[3], where a higher score implies higher legal effectiveness, Thailand's score is 10.7—slightly higher than the average of the 16 largest emerging economies[4] at 10.64, but much less than the average of all countries at 16.05. In addition, *Transparency International*'s Corruption Perception Index, where a higher score means less corruption, gave Thailand a score of 3.6 out of 10 in 2006, which is again about the same as the average of the same group of emerging economies at 3.6. In this case, Thailand was ranked 63rd out of 163 countries.

More than two-thirds of listed firms in Thailand are family firms. In 1996, family firms represented about 70% and 76% of the publicly traded firms in Thailand using the 20% and 10% voting rights threshold, respectively. The prevalence of family firms in the Thai stock market is similar to many countries. In Asia, for instance, Claessens et al. (2000) report that the percentage of family firms among listed firms is 71% in Indonesia, 66% in Hong Kong, 67% in Malaysia and 55% in Singapore. In Europe, Faccio and Lang (2002) report similar evidence in Germany (65%), France (65%), Portugal (60%), Spain (56%), Austria (53%) and Belgium (51%).

B. Marriage and Family in Thailand

[3]The weighted average of La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998)'s five categories of the quality of legal institutions and government in a country.

[4]Argentina, Brazil, Egypt, India, Indonesia, South Korea, Malaysia, Mexico, Pakistan, Peru, Philippines, South Africa, Sri Lanka, Taiwan, Thailand and Turkey.

The Thais have close family ties; the mutual support and influence shared among families is enormous. Parents, in particular, have a strong influence over almost every aspect of their children's lives, such as education, career and marriage decisions, and continue to remain involved after their children are married. Thai children are raised to respect and honor their parents as the most sacred people in their lives. Accordingly, children are expected to show gratitude to their parents and to fulfill their filial duties by being obedient and respectful of their parents' wishes and by caring for them when they get old. Breaking this rule is regarded as sinful.

When one wishes to marry, he/she must first become well acquainted with the entire family of the groom/bride-to-be and receive their approval. The family often includes not only parents and siblings but also extended family members. A marriage without the family's blessing is likely to face enormous difficulties when the couple interacts with the extended family with regard to future economic and domestic issues. Nonetheless, assuming this stage of the process has gone well, the parents of the man intending to marry delegate a respected person to ask the parents of the bride-to-be for the hand of their daughter. The couple can then live together, but only after having a wedding ceremony attended by their families.

Traditionally, respected astrologers or monks, with whom the families consult, select the wedding date. An auspicious time and date are usually chosen in an even-numbered lunar calendar month. The wedding reception is often extremely elaborate and large numbers of guests are invited. These arrangements are often intended to enhance status and show off the families' networks. Therefore, the weddings of big business families often have influential people such as royals and top business and political leaders in attendance.

Divorce is traditionally considered socially unacceptable in Thailand. Consequently, the

divorce rate is relatively low.[5] However, attitudes toward divorce have changed over time, as they have in many other Asian countries. According to national statistics, the average rate of divorce in Thailand rose from less than one per 1,000 in 1994 to 1.28 per 1,000 in 2003. Despite this increase, the rate still remains much lower than in most other countries, which indicates an enduring tradition of strong family values. In addition, the low divorce rate suggests that Thai marriages continue to create long-lasting bonds between family members.

C. Hypotheses: The Value of Marriage to Family Firms

This section presents our testable hypotheses. There are at least two reasons why the firm value might be affected by the marriage of family members of the firm's controlling shareholder.

1. Establishment of Networks

Molho (1994) writing about marriages in late medieval Florence, states that marriage did not happen in a haphazard fashion; certainly they were not the outcomes of whims, infatuations, or personal preferences. A complex and precise calculus was at work, most especially when marriage set up relations between families in command of capital of a material or symbolic kind.

Even today, the marriage of a son and a daughter serves as a bond connecting related families. A fine illustration of a family network bound together by marriage is exemplified by one of Thailand's oldest business groups, the Lamsam. Figure 1 shows that this family's extensive

[5]In 2004, the divorce rate in Japan was 2.08 per 1,000 and 2.9 per 1,000 in South Korea. In 2003, the divorce rate in Sweden was 2.36 per 1,000, 2.8 per 1,000 in the U.K., and 4 per 1,000 in the U.S. The data were obtained from the United Nations' Demographic Yearbook (2003) and the Japanese Ministry of Health, Labor and Welfare's Demographic Statistics (2005).

networks, connected by numerous marriages over three generations, involve 56 families and include big businesses, members of the Thai Royal Family, and high-ranking officials.

Marriage is a lifelong contract and creates an enduring bond between the two individuals and their families. Marriage contracts often make divorce a difficult option, as they can only be broken in extreme circumstances. The presence of children further reinforces and stabilizes the gains to be made from maintaining the relationship (Pollak (1985)). In addition, these connected families are incentivized to trust each other, for their son/daughter and grandchildren are regarded as hostages in a marriage (Williamson (1983)). Therefore, matrimony creates a relationship of trust between the two connected families, which provides lifelong commitment (Becker et al. (1977)). In fact, it arguably creates stronger connections than the relationships created through friendship, partnership, or the directorship of a corporate board.

[Insert Figure 1 here]

The Characteristics of Family Ties

In general, family relationships are characterized by higher levels of trust, empathy and reciprocity, which do not exist in relationships established for purely instrumental reasons (Granovetter (1985)). Family ties facilitate the effective monitoring of their members due to their frequent and intimate interaction. Families also have a number of sanctioning parties and an arsenal of penalties for improper practices. Accordingly, family ties ensure the community enforcement of contracts and are associated with higher levels of cooperation. Due to these unique characteristics, family relationships in business are the next-best solution to imperfections found in financial markets and corporate governance (Burkart et al. (2003)).

The Value of Family Networks

Marriage creates a stable form of alliance, just as a merger combines the operation of two firms under the same roof. Family networks, including those established by marriage, can be valuable to firms for several reasons. First, they contribute high-quality and reliable information, knowledge, and technology (McMillan and Woodruff (1999), Ingram and Simons (2002)). Second, specific family members provide an important source of reputation capital in product, input, and political markets (Granovetter (1985), Greif (1993)). Third, family members can share the family's pool of finance, human resources, and other privileges, therefore enlarging fortunes (Balmori et al. (1984). In addition, family networks help maintain mutual interests and even eliminate competition. Finally, the combined reputation and resources of connected families effectively make a transaction self-enforcing (Klein and Leffer (1981)), which in turn provides credible guarantees in business dealings with other parties such as suppliers, customers, and regulators.

Abundant anecdotal evidence supports this hypothesis. The Medici, the wealthiest house in Renaissance Italy, provides the finest example from European history. They were connected through several marriages to almost all the influential families of the time, including merchants, aristocrats, and royalty, namely the Habsburg, Toledo, and French royal families. These well-crafted networks are regarded as having been instrumental in their rise to power (e.g., Padgett and Ansell (1993)). Similarly, Ingram and Lifshcitz (2006) show that family ties led to a sharing of managerial ideas, technology, and human resources among leading shipbuilders on the Clyde River in the U.K. during the nineteenth century. This close collaboration helped them remain the world's most famous shipbuilders until the early twentieth century.

2. Succession and inheritance

To ensure the longevity of a family firm, the patriarch must select the best and brightest of his

heirs to take up the reins of the business. Marriage can play several potential roles in succession planning. As the most important qualities of effective leadership include integrity, maturity, business acumen, and social skills, the patriarch needs to find a good partner for his/her genes who is capable of raising and educating the next generation of heirs. Moreover, whenever the family lacks suitable biological heirs, marriage can help bring in the required talent, i.e. sons-in-law. An aggressive version of this course of action is to adopt a son-in-law as a new son, a strategy commonly used by the founding family in Japan (Mehrotra et al. (2011)).

Marriage can also serve as a means of disciplining successors. In many cultures, the event is thought of as a great watershed in life, marking the transition to adulthood or maturity (Arnett, 2004) and the beginning of an individual's separation from the parental family unit. In this respect, marriage can force young sons to establish their own family and become fathers, thus cutting off opportunities to enjoy individual freedom. As described in a variety of anecdotes, after getting married the heir apparent must leave behind a life of leisure and work hard.

III. Data and Methodology

A. Data Sources

We construct a dataset to investigate the value of marriage in family firms. As our analysis uses share prices to examine stock market reactions, our sample firms must include publicly listed companies. Our focus, therefore, is on weddings involving families that own at least one listed firm (henceforth called 'big business'). The period of study covers the years from 1991 to 2006. Financial and share price data are taken from the SETSMART online service and Datastream, and all remaining data are hand-collected, as described below.

1. Ownership

We use several data sources to identify the ultimate owners of listed firms. The main databases are the I-SIM CD-ROM and the SETSMART online service, produced by the Stock Exchange of Thailand (SET). These two data sources contain information from the company annual reports (FM 56-1) of all publicly traded companies in Thailand. For a given company, the ownership data include (1) shareholders with stakes of at least 0.5% and (2) a list of the company's affiliated companies and its shareholdings in these companies. We supplement the ownership data of non-listed companies using the Business On-Line (BOL) database, which contains accounting and ownership information submitted to the Ministry of Commerce by all registered companies licensed by the Ministry to reproduce and commercialize such information.

The end result is a comprehensive dataset containing high quality ownership and family tree data that enable us to identify ultimate owners more accurately. Our dataset of ownership contains shareholders with stakes of at least 0.5% and includes all listed firms. In contrast, other studies use much less comprehensive datasets. For example, Claessens et al. (2000)'s dataset contains shareholders who own at least 5% and includes less than half of all listed firms.

There is no consistent definition in the literature of what constitutes a family firm. Most studies require that the founding family owns at least 5%, 10% or 20% of the voting rights (La Porta et al. (1999), Claessens et al. (2000), Faccio and Lang (2002), Holderness (2009), Ellul et al. (2010)). A few studies, particularly on US firms, do not require any minimum family ownership stake as long as the founding family is present on the board of directors or holds a position as a top-level manager (Anderson and Reeb (2003), Villalonga and Amit (2006)). Similarly, Mehrotra et al. (2011) study Japanese firms and require that the founding family holds the CEO or Chairman position.

In addition, the literature does not define family formally, so a family can be a group of

family members or merely an individual. For example, Anderson and Reeb (2003) defined Microsoft as a family firm because an individual, the co-founder Bill Gates, owned stock and was the CEO.

In Thailand, as in other emerging economies, separation between ownership and control is rare. In addition, due to close family ties many family members are involved in the firm. Therefore, we define family firms as follows. A firm belongs to Family X if the family owns at least 10% voting rights directly and indirectly. Direct ownership is held by family members, which include the founder, his wife, his children and their spouses, his grandchildren and their spouses and the founder's siblings and their spouses and children. Extended family members are combined as a single shareholder to account for close family ties in Thailand. Indirect ownership is held by corporations in which the family owns at least 10% of voting rights. We follow the approach exemplified in La Porta et al. (1999), Claessens et al. (2000) and Faccio and Lang (2002) to trace the ultimate ownership of firms in the pyramidal structure.

Using this definition, our results show that, typically, the founding family is the largest shareholder. Several family members from the founding family, sometimes in combination with firms ultimately owned by the family, dominate the list of a firm's top shareholders.

It is worth noting that using other ownership cutoffs suggested by the literature (e.g., 5% or 20%) does not affect the results. The vast majority of founding families in our sample own a much larger stake. The average stake is more than 40%. In addition, the requirement of family participation in top management does not change the results. In our sample, all founding families participate in the top management of firms (see also Polsiri and Wiwattanakantang (2006)).

2. Family Trees

We trace the members of the founding family from various sources. First, we use surnames,

which in Thailand are unique by law, and only individuals belonging to a given family may use that particular name. Then, for each family member, we collect information on his/her specific position in the family tree, gender, and birth order (defined as the rank of children within a specific marriage). This information is hand-collected from various sources. The main data source is cremation documents, which are published and distributed as gifts on the occasion of cremation ceremonies. The data from these booklets include the biography of the deceased and the names, genders, and dates of birth of his or her parents, siblings, spouse(s), children and grandchildren. Many of the booklets of the founders/leaders of business groups include detailed genealogical diagrams of the family and their related families and can be obtained from the National Library of Thailand, which receives copies of almost all booklets published in the country.

The second data source is composed of company annual reports (FM 56-1) of listed firms, which are required by the stock exchange to disclose any family relationships between major shareholders and board members. In addition, the board members' dates of birth are collected from this data source.

Additional information is obtained from other sources. Brooker Group (2001) and Sappaiboon (2000), (2001) provide the family backgrounds of the top 100 families, such as the names of the founder, his spouse, children and siblings, while Polsiri and Wiwattanakantang (2006) provide information on the families-in-law of top business group owners.

3. Weddings

The data source for weddings is the newspaper *Thairath*, which is Thailand's most widely circulated newspaper and has a long history of publishing a daily page 4 column on high-society weddings. This well-established column publishes at least one wedding a day and provides a color picture of the wedding reception, which is usually held at a luxury hotel. The photo typically shows

the couple, their parents, and the most distinguished guests in attendance, for example members of the Royal Family and top business and political leaders. From this column, we hand-collect the names of the bride, groom, their parents, the date of the wedding reception and the date when the news was published in this column.

We gather the wedding news from January 1, 1991 to December 31, 2006 from newspaper microfilm collections available at the National Library of Thailand. There are a total of 2,225 weddings. Following this, we match the names of the newlyweds with the names of members of the founding families who control at least one publicly traded company.

Of the 2,225 weddings reported in the newspaper, 131 meet our criterion that at least one side of the couple is from a big business family. Of these 131 weddings, there are nine where both the bride and groom are from big business families. Since we analyze stock prices of the firms owned by both sides, these nine cases are counted as 18 observations. The final sample consists of 140 observations.

These 131 weddings involved 91 big business families, with a few holding more than one wedding during the period of our study. The wedding events are smoothly distributed throughout the period of our study, though they are slightly more numerous in 2005. The year of the Asian financial crisis (1997) has the fewest observations at just three.

B. Methodology: Market Reaction to Wedding News

We examine the stock market responses to wedding news. If the marriage of a member of the controlling family benefits the firm, for example if it helps establish a new business network, we should observe significant positive abnormal returns for the family's firms around the wedding event. On the other hand, if the marriage is irrelevant to the family business or not important for the firm's prospects, no significant change in market valuation around the event should be observed.

Event-study methodology (Brown and Warner (1985) is employed to calculate cumulative market-model abnormal returns (CARs) around the event date. The event date (t=0) is defined as the immediate trading day after the wedding news is published in the newspaper, which is when the wedding information becomes public. However, the results are similar to when the wedding reception date is used as the event date.

Daily stock returns (dividend adjusted) are employed in the calculation of CARs. For a given event period, a CAR is computed as a firm's equity return minus an estimated return based on the market model and summed over the event period. To obtain OLS estimates of the market model parameters, we regress a firm's returns on market index returns during a 200-trading day window from days -230 to -31 prior to each event date. The Stock Exchange of Thailand value-weighted market index is used as a proxy for the market index.

We employ several event windows to account for the possibility that stock prices react to a wedding well before the event date. Essentially, the event windows are several sub-periods between 30 trading days before to 30 trading days after the event date. The 30 trading days prior to the event date were chosen based on the invitation custom in Thailand, whereby an invitation card is typically sent out to the guests less than one month before the wedding reception.

There may be some concerns that the stock price effect of a wedding might be underestimated if the wedding news is anticipated, as wedding anticipation can form from news about dating and engagement. Although dating indicates a close relationship, the couple in question does not necessarily end up getting married. Dating news is thus not totally reliable and can even be noisy information. Furthermore, unless a family has a high public profile, dating news will not be reported in the general media. An engagement, if held far in advance of the wedding, could probably cause a news leakage problem and would thus bias our estimation results, but fortunately this is not the case in Thailand, as nowadays the engagement and wedding typically take place on the same day.

The test statistic under the null hypothesis of zero CARs is computed for each sample following Brown and Warner (1985). More specifically, the test statistic is the ratio of the average CAR to its standard error, estimated from the time-series of average abnormal returns. This test accounts for cross-sectional dependence in abnormal returns.

IV. Main Results

We begin our analysis by testing the hypothesis that marriage affects a firm's value. We first investigate who the marriage partner is and then analyze investor reactions to the wedding.

A. Who Is the Wedding Partner?

For each marriage in our sample, we classify his/her partner's family background in one of the following categories: (1) royals and nobles, (2) politicians, high-ranking civil servants and military officers, (3) big businesses, (4) other business, (5) foreigners, and (6) others. In category (4), 'other business' is defined as families that own at least one company in the list of the 2,000 largest companies, but the company is not publicly traded.

We consider that a marriage contributes to a family's business in terms of network formation when the marriage partner is from a prominent family, either from a political or business background. Networks are deemed political when the partner is from a royal or political family, i.e. categories (1) and (2). Business networks involve the partner coming from one of the business families (categories (3) and (4)). Finally, we define marriage as a non-network union when the partner is not from a political or business family, i.e. categories (5) and (6). In other words, this marriage does not connect their family to any business or political circles.

Astonishingly, around 79% of the 140 pairings are network marriages (Table 1). Specifically,

66 marriages connect family firms to business networks, and 44 marriages connect firms to political networks. The remaining 30 cases constitute our benchmark of non-network marriages to partners such as actresses, singers, television newscasters, former beauty contest winners (e.g. Miss Universe and Miss Thailand), and university professors.

[Insert Table 1 here]

B. Does Marriage Create Value?

We investigate investor reactions to the following two types of weddings: network marriages and non-network marriages. If marriage is instrumental in network formation, around the wedding date we should observe positive CARs for the firms owned by the families engaging in network marriage. To capture any possibility that wedding news might leak before the wedding reception took place, we investigate CARs from 30 days prior to the event date.

Figure 2 presents the average CARs from 30 days prior to the event date (-30) to 30 days after (+30). Different patterns of abnormal returns are detected depending on the type of marriage involved—investors only respond positively to wedding news about network marriages and are not interested in non-network marriages. Interestingly, the two sets of firms have a similar pattern of abnormal returns until around five days before the event date (-5). Then, the firms associated with network marriages outperform those associated with non-network marriages throughout the rest of the observation period. Moreover, their average CAR continues to rise throughout the 30 days after the event date. The CAR patterns indicate that the stock market reacts positively to the news of network marriages, providing initial support for the argument that networks create value for family firms. For non-network marriages, however, positive abnormal returns are conspicuously absent.

The persistent difference in CAR between the two sub-samples suggests that the different

performance of the stocks subsequent to the wedding events is not primarily due to the mean reversion in long-horizon returns on individual stocks (De Bondt and Thaler (1985), (1987)). Otherwise, stock return reversal should be observed subsequent to the wedding events in the network marriage sub-sample.

Table 2 reports the results of univariate tests of the statistical significance of CARs within and between sub-samples. The results confirm the findings from Figure 2. First, network marriages are associated with positive abnormal returns. The average seven-day (from -3 to +3), 11-day (-5 to +5), and 61-day (-30 to +30) CARs for the firms belonging to the families are about 1.40%, 2.04%, and 3.77%, respectively. These results are significantly different from zero at the 1% level. The estimated average seven-day, 11-day, and 61-day CARs for non-network marriages are not different from zero.

In addition, network marriage generates a premium when it is compared with non-network marriage. The average differences in CARs between network and non-network marriages are 1.25%, 2.17%, and 3.72% in the seven-day, 11-day and 61-day windows, respectively.
The results are similar when we break down the networks into business and political networks, both of which bring a premium to their connected firms. Political network marriages generate seven-day, 11-day, and 61-day abnormal returns that are 1.70%, 2.73%, and 5.38%, respectively, higher than non-network marriages.

Similarly, firms that are associated with business network marriages earn an average premium as measured by the seven-day 11-day, and 61-day CARs of 0.95%, 1.79%, and 2.60%, respectively.[6] The value created by political network marriages appears to be somewhat larger than

[6]For example, Faccio (2006) studies the value of political connections using cases of when large shareholders enter politics and when politicians are appointed to the boards of firms. The results, based on 157 observations from 47 countries, indicate that these firms gain an average five-day CAR of 1.43%.

for business network marriages, but the difference is not statistically significant. The median statistics in Table 2 produce results similar to the mean statistics, suggesting that these findings are not driven by extreme values.

In summary, the results are consistent with the hypothesis that marriage helps families build connections, whilst positive abnormal returns reflect some sort of future economic benefit that family firms are expected to gain from being connected to new networks.

[Insert Figure 2, Table 2 here]

C. Sources of Value Gain

This section investigates the following three sources of value from which family firms might benefit in a marriage network. We discuss the nature of such benefits and formulate our empirical tests.

1. The Information and Connection Effect

The Information Effect

Networking often helps firms get off the ground in some industries. For example, real estates in emerging markets are often characterized by having irregular trading volumes and highly volatile prices. This is due to the characteristics of the products, which are unique in terms of location and quality, and make transactions difficult because they require a high content of specific knowledge for buyers to verify the products (Arrow (1971), Williamson (1987)). Family networks provide a valuable means of collecting relevant information such as supply, demand, industry trends, and market conditions (e.g., Granovetter (1985)).

The Political Connection Effect

In a highly regulated environment, government officials formulate development plans, control budgets, set the rules for contractors to enter and operate in industry, examine credentials, authorize contracts and pay the bills for services rendered. Therefore, corporate performance is highly dependent on the ability to mold the rules to fit a firm's needs, while close connections with high-ranking officials are instrumental in gaining various competitive advantages. As Bunkanwanicha and Wiwattanakantang (2009) show, firms in the satellite cable television and telecommunication industries in Thailand have been able to obtain concessions through such connections. In addition, incumbent telecom firms were protected from competition when the state enacted a new regulation to block new entries to the market.

As the abundant anecdotes indicate, business leaders often influence government officials on such things as the selection of a new road to be built, the route it should follow, or a new construction project. Benefits may also simply come from having access to confidential information on new construction projects, such as when a developer buys properties around the area, before property prices rise when the information is eventually made public.[7]

Empirical Evidence

We investigate marriage patterns in families that operate in the property, construction, and concession industries, which include telecommunications, television, alcoholic drinks, and energy. Our hypothesis is that because these businesses benefit from gaining access to inside information and political connections, the families are more likely to engage in network marriages.

[7]For instance, allegations were raised that prominent developers with strong political connections speculated on the construction of a new Bangkok airport to be opened in 2006 by buying large plots of land surrounding the airport site (*The Nation*, June 26th, 2006).

Table 3 presents the results of this analysis. Families whose businesses are in these industries almost always choose network marriages. Statistically, in the property and construction industries, 35 out of 37 cases are network marriages, while in concession industries, 14 out of 15 cases are network marriages. This striking evidence of network marriage practice lends initial support to the notion that business and political networks are critical to these industries and firms.

In addition, we test the effects of information and political connection by investigating investor reactions to the marriage news. The focus is on the 11-day CARs of the families' firms around the wedding events, while the analysis is at the family level. If a family owns multiple publicly traded firms in different industries, we include only the firms in the property and construction and concession industries. If a family owns multiple firms in these industries, we calculate the average 11-day CAR of all the firms.

Unfortunately, we are unable to perform the regression analysis due to the small number of non-network marriages entered into by the families in these industries. Instead, we conduct univariate comparisons of the average CARs of the firms of the families engaging in network marriages with those of the few remaining families associated with non-network marriages.

Consistent with our previous findings, network marriages in the property and construction and concession industries are good news for investors. In particular, they are associated with average 11-day CARs of 2.78% and 2.22% for firms in the property/construction and concessions industries, respectively. In contrast, non-network marriages are not associated with any abnormal returns.

The premium generated by network marriage is 3.01% for firms in the real estate and construction industries and 2.26% for firms in concession industries. These results indicate that it is the network effect, rather than the industry effect per se, that drives the positive abnormal returns.

[Insert Table 3 here]

2. The Business Synergy Effect

Marriage can create beneficial effects for family firms in a network—just as mergers create synergies between firms. We investigate horizontal and vertical alliances as potential sources of gain from network marriages. The literature provides abundant theories and evidence on the benefits of both types of business combination, including cost reduction through scale economy and/or complementarity and monopolizing resources and markets as well as mitigating transaction costs (Coase (1937), Williamson (1971), Klein et al. (1978), Grossman and Hart (1986)).

Opportunities for horizontal alliance can arise through marriage relationships when the families of the bride and the groom each own at least one firm that operates in the same industry, for example when a textile manufacturer's son marries the daughter of another textile manufacturer. Similarly, opportunities for vertical alliance can arise when the family firms owned by the two families are potential suppliers and/or customers. An example of this would be where the bride's family owns an automobile company and the groom's family owns a tire company.

To identify the relatedness of the two families' businesses, we classify each using two-digit SIC codes and compare these sets of two-digit SIC codes of the bride's family's businesses with those of the groom's family. A marriage creates an opportunity for horizontal alliance if the two families have at least one common business defined at the two-digit SIC code level, and it creates an opportunity for vertical alliance if one family has at least one firm that is upstream or downstream from a firm owned by the other family. For a given business associated with a two-digit SIC code, its upstream/downstream businesses are defined as its top three supplying/consuming industries, as in the input-output table (Fan and Lang (2000)).

We investigate the stock prices of publicly traded firms that belong to these families using the 11-day CAR around the wedding event. Table 4 report the results showing that almost all of the

marriages are associated with significant positive stock price reactions. The average CAR is 3.56% for the network marriages associated with horizontal alliance (9 cases) and 3.78% for those associated with vertical alliance (14 cases). These numbers are significantly different from zero and significantly larger than the average CAR of the non-network marriages, which is -0.13% as reported in Table 2. These numbers are also larger than those of the other network marriages that are neither vertically nor horizontally related, which is +1.88, although it should be noted that the differences are statistically insignificant due to the small samples. Nevertheless, these results are consistent with the hypothesis that marriage creates business synergies among connected firms.

The above business synergy results are not driven by specific industries, such as property and construction, or the concession industries, as significant positive abnormal stock returns remain even if these network intensive industries are excluded.

[Insert Table 4 here]

V. Alternative Hypothesis

In this section, we explore the alternative hypothesis by testing whether marriage is related to succession. We test whether marriage can help discipline or recruit successors.

A. Disciplining Successors

Traditional thinking is that when a man gets married he settles down and can focus on work. Therefore, we should observe positive abnormal returns for firms where the heir gets married. In Thailand, the eldest son is the natural heir to the main business unless he is deemed incapable or not interested in business and in this case, the mantle typically passes to other sons. Accordingly, if

marriage benefits the firm because of this disciplining effect, investors should react positively to the marriage of the first son, regardless of his partner's family background. In addition, investors should react more positively to the eldest son's marriage than to those of other sons.

We focus on marriages involving the first son of the current head (henceforth *first son of the current head*) and compare the results with the marriages of other sons, who are classed as any sons who are not the first son of the current head. The head of a group is defined as the founder, if the founder is still alive; otherwise, the head is the CEO or chairman of the largest firm in the group.

Panel A of Table 5 presents a set of univariate comparisons of the 11-day CARs from several sub-groups of firms. The marriages of all the sons are associated with positive CARs. Specifically, the marriages of first sons and other sons are associated with CARs of 1.58% and 1.80%, respectively. However, the statistic test result for a difference in the mean CAR between these two groups (first sons vs. other sons) shows that the two CAR values are not different.

What is clear is that the positive abnormal returns associated with the marriages are driven by the partner's background. As such, investors react positively only when the first sons marry women from other business or political families, doing so with a mean CAR of 1.76%. Similarly, the marriages of other sons to partners from business or political families are associated with CARs of 2.38%. However, when the sons choose a partner from another background, the marriages are associated with zero abnormal returns.

In summary, all these results fail to support the successor-disciplining hypothesis while lending strong support to the network hypothesis.

B. Recruiting Successors

To examine whether marriage can serve as a means to bring in new sons as successors, we look at the marriages of daughters of the current head (henceforth *daughter of the current head*) and

other daughters, classed as those who are not the daughters of the current head.

The CARs' results from Panel B of Table 5 show that daughters' marriages are associated with positive CARs, but only when they choose men from business or political families. Almost all of the daughters of current heads (18 out of 19 cases) marry a person from an influential family. The stock prices of the firms belonging to the daughters' families go up, with an average CAR of 2.34%. The results from the marriages of other daughters are similar in that their marriages to men from business or political backgrounds are associated with a mean CAR of 1.63%.

These results do not support the view that marriage is used to bring in potential successors; rather, they strongly suggest the network effects of marriage in that daughters often connect their families and their firms to other powerful families.

[Insert Table 5 here]

VI. Robustness Checks

A. Regression Analysis

We check the robustness of the univariate results by running OLS regressions controlling for a number of factors that may affect market valuation. The dependent variable is the 11-day CAR. Dummy variables are included as independent variables to capture the type of marriage. *Business* network marriage is set to one if the marriage partner is from a business background, and zero otherwise. *Political* network marriage is set to one if the marriage partner is from a political background, and zero otherwise. *Network* marriage is set to one if the marriage partner is from a business or political background, and zero otherwise. This dummy variable captures the combined effects of both types of network marriage.

We control for the effect of firm characteristics such as firm size, leverage, and profitability on market valuation. Firm size is measured by the logarithm of total assets. Leverage is measured by total debt divided by total assets and profitability is defined as the ratio of EBIT to total assets. All of these variables are measured at the end of the year in which the wedding was held. The results remain unchanged when the lagged control variables are used.

Second, we examine the succession hypothesis by analyzing the effect of the marriage of sons and daughters on market valuation. *First son of the current head* is a dummy variable set at one if the groom is the first son of the current head, and zero otherwise. *Daughter of the current head* is a dummy variable set at one if the bride is a daughter of the current head, and zero otherwise. The regression results in Table 6 are consistent with those of the univariate test. These two dummy variables are statistically insignificant, and hence are unable to support the hypothesis that the marriage of family members is related to succession.

Third, we test whether our results are driven by marriage of family members who are involved in management. We capture this effect by introducing a dummy variable, *board member*, in the regressions. *Board member* is set to one if the bride/groom is a board member at the time of marriage, and zero otherwise. The estimated results in Table 6 show that these marriages are not associated with positive CARs. That is, family members create connections for the firms regardless of whether they are directly involved in the management of the firm.

Fourth, we control for the effect of old money vs. nouveaux riches. An example of old money is an established family that has inherited wealth and valuable family connections over generations. In contrast, the traditional claims to status are not found among the nouveaux riches. Therefore, the value a family of the nouveaux riches gains from a network marriage might be greater than what a family from old money gains. To account for this effect, we include a dummy variable, *old money*, which is set to one if the family has been in business for more than one generation; otherwise, it is

zero. Our main results remain the same.

Fifth, we account for any potential correlation of stock price effects of marriages within the same family by clustering the standard errors at the family level. The regression results in Table 6 are consistent with those of the univariate tests reported in Sections 4 and 5 in that the estimated coefficients on the three network variables are positive and strongly significant in all regressions. Further, the stocks of the firms associated with network marriages experience significantly higher CARs than those of the firms associated with non-network marriages. Moreover, the estimated coefficients on the network dummy variables suggest that, measured by the 11-day CARs, political network-creating marriages are, on average, associated with a 3.30% stock return premium, and business network-creating marriages are typically associated with a 2.20% stock premium.

Finally, we include a set of industry dummy variables and re-run the regression. The results are not affected after controlling for these industry effects as shown in Columns (2) and (4).

[Insert Table 6 here]

B. Alternative CAR Measures

We use the following two alternative time windows for CARs—a seven-day event window (-3 to +3) and a 61-day event window (-30 to +30), and re-estimate all of the results. We find that they are qualitatively identical to those reported earlier; therefore, we do not tabulate them. Finally, we estimate CARs using the market index return instead of the return estimated from the market model, in order to account for potential bias in estimating market model coefficients. Our overall results remain qualitatively similar.

VII. Network marriage in other countries

Our results on marriage networks in Thailand can yield lessons for other countries. Network marriage is not unique to Thailand. Table 7 shows that network marriages engaged by big business families are observed worldwide.

A spectacular example is the Lee family, the founding family of the Samsung group, the largest *chaebol* in Korea. Via multiple marriages of its family members, the *chaebol* has developed extensive connections with the country's inner circles, namely the other four *chaebols* (LG, Hyundai, Kolon, and Poonsan) and many high-ranking politicians, including former presidents (Kim, 2007). The Toyoda family in Japan which controls the Toyota Motor Corporation also has very well-crafted networks. The Toyoda family networks are comprised of two former prime ministers (Nakasone and Hatoyama) and at least seven top business families, namely the Mitsui family (the biggest pre-war zaibatsu), the Shimizu family (a worldwide general construction), the Kajima family (worldwide general construction), the Ishibashi family (Bridgestone), the Uehara family (Taisho Pharmaceutical), the Saito family (Daishowa Paper Manufacturing), and the Iida family (Takashimaya department store). These enormous family networks are similar to those observed in Thailand.

Marriage also helps create networks for family firms in the west. In Canada, Paul Desmarais, who owns Power Corporation and an extensive number of companies and is ranked the sixth richest person in Canada, is connected to former Prime Minister Jean Chretien by the marriage of Andre Desmarais and France Chretien. In continental Europe, one of the richest shipping tycoons of the twentieth century, Aristotelis Onassis, was married to a daughter of another shipping magnate, Stavros Livanos. Later, Onassis was married to Jacqueline, who was the wife of former President of the United States John F. Kennedy. More recently, in France, Jessica Sebaoun-Darty, an heiress of a

French electronics vending empire, was married to Jean Sarkozy, a son of President Nicolas Sarkozy.

In emerging economies, a well-known case from South Asia is the marriage of the heir of the Chaudhary group to a daughter of the controlling family of the Mittal group. While the Chaudhary group has its headquarters in Nepal, the Mittal group dominates the world's steel industry. In Russia, Oleg Deripaska, the founder of one of the world's largest producers of aluminum, is married to a granddaughter of the late former Soviet president Boris Yeltsin. In Ukraine, the owner of the country's second largest business group, Viktor Pinchuk, is connected to former president Leonid Kuchma through the marriage of his daughter.

[Insert Table 7 here]

VIII. Conclusion

This paper shows that the value of family firms is affected by the marriage of family members of the controlling shareholder, thus creating a lifelong relationship between the connected families. These family networks, therefore, may facilitate the exchange of information and resources and encourage business synergy among the family firms in the networks. The benefit is greater for firms whose operations are highly dependent on proprietary information, political connections, and exclusive resources. Our results also show that marriage may also facilitate the business alliance of the firms owned by now closely connected families. As a result, this form of business alliance involving horizontal competitors or upstream and downstream suppliers and customers may eliminate competition between the firms.

We believe that our results are useful in understanding the behavior and corporate policies of

family firms. Our findings support a growing body of research that studies the role of the founding family—its preferences, norms, and dynamics—on major corporate policies, namely dividends, investment, and succession. Our work is also relevant for the critical resource theories of the firm. The existing firm theory emphasizes specific resources or assets that determine the firm's growth and survival (e.g., Rajan and Zingales (2001)). In family firms, these critical resources are entrepreneurial and management skills, recipes and formulae, and good relationships with suppliers and clients that the family has cultivated over time. Furthermore, a unique and critical resource that is exclusive to the firm is the founding family's members, regardless of whether they are directly involved in the management of the firm. As this paper shows, offspring contribute to the firm by setting up networks via their marriage. Given the importance of the founding family to the firm, more research clearly needs to be done to understand the effects of various aspects of the family on corporate financial policies.

References

Anderson, R. C., and D. M. Reeb. “Founding-Family Ownership and Firm Performance: Evidence from S&P 500.” *Journal of Finance*, 58 (2003), 1301-1329.

Arnett, J. J. *The Winding Road from the Late Teens through the Twenties*. New York, NY: Oxford University Press (2004).

Arrow, K. J. “The Value of and Demand for Information.” In *Essays in the Theory of Risk-bearing*, C. B. McGuire, and R. Radner, eds. Chicago, IL: Markham (1971).

Balmori, D.; S. F. Voss; and M. Wortman. *Notable Family Networks in Latin America*. Chicago, IL: University of Chicago Press (1984).

Becker, G. S.; E. Landes; and R. Michael. “An Economic Analysis of Marital Instability.” *Journal of Political Economy*, 85 (1977), 1141-1188.

Bennedsen, M.; K. M. Nielsen; F. Perez-Gonzales; and D. Wolfenzon. “Inside the Family Firm: The Role of Families in Succession Decisions and Performance.” *Quarterly Journal of Economics*, 122 (2007), 647-691.

Bennedsen, M.; F. Perez-Gonzales; and D. Wolfenzon. “Do CEOs Matter?” Working Paper, Stanford University (2010).

Berkowitz D.; K. Pistor; and J-F Richard. “Economic Development, Legality, and the Transplant Effect.” *European Economic Review*, 47 (2003), 165-195.

Bertrand, M.; S. Johnson; K. Samphantharak; and A. Schoar. “Mixing Family with Business: A Study of Thai Business Groups and the Families behind Them.” *Journal of Financial Economics*, 88 (2008), 466-498.

Bertrand, M., and A. Schoar. “The Role of Family in Family Firms.” *Journal of Economic Perspectives*, 20 (2006), 73-96.

Balmori, D.; S. F. Voss; and M. Wortman. *Notable Family Networks in Latin America*. Chicago, IL: University of Chicago Press (1984).

Brooker Group. *Thai Business Groups 2001: A Unique Guide to Who Owns What*. Bangkok, Thailand: Brooker Group (2001).

Brown, S. J., and J. B. Warner. “Using Daily Stock Returns: The Case of Event Studies.” *Journal of Financial Economics*, 8 (1985), 205-258.

Bunkanwanicha, P., and Y. Wiwattanakantang. “Big Business Owners in Politics.” *Review of Financial Studies*, 22 (2009), 2133-2168.

Burkart, M.; F. Panunzi; and A. Shleifer. “Family Firms.” *Journal of Finance*, 58 (2003), 2167-2202.

Carroll, A. B., and A. K. Buchholtz. *Business and Society: Ethics and Stakeholder Management*. Cincinnati, OH: South-Western College Publishing (2000).

Chernow, R. *The House of Morgan: An American Banking Dynasty and the Rise of Modern Finance*. New York, NY: Grove Press (1990).

Claessens, S.; S. Djankov; and L. H. P. Lang. "The Separation of Ownership and Control in East Asian Corporations." *Journal of Financial Economics*, 58 (2000), 81-112.

Coase, R. H. "The Nature of the Firm." *Economica*, 4 (1937), 386-405.

De Bondt, W. F. M., and R. H. Thaler. "Does the Stock Market Overreact?" *Journal of Finance*, 40 (1985), 793-808.

De Bondt, W. F. M., and R. H. Thaler. "Further Evidence on Investor Overreaction and Stock Market Seasonality." *Journal of Finance*, 42 (1987), 557-581.

DeAngelo, H., and L. DeAngelo. "Controlling Stockholders and the Disciplinary Role of Corporate Payout Policy: A Study of the Times Mirror Company." *Journal of Financial Economics*, 56 (2000), 153-207.

Ellul, A.; M. Pagano; and F. Panunzi. "Inheritance Law and Investment in Family Firms." *American Economic Review*, 100 (2010), 2414-2450.

Faccio, M. "Politically Connected Firms." *American Economic Review*, 96 (2006), 369-386.

Faccio, M., and L. H. P. Lang. "The Ultimate Ownership of Western European Corporations." *Journal of Financial Economics*, 65 (2002), 365-395.

Fan, J. P. H., and L. H. P. Lang. "The Measurement of Relatedness: An Application to Corporate Diversification." *Journal of Business*, 73 (2000), 629-660.

Granovetter, M. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology*, 91 (1985), 481-510.

Greif, A. “Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders Coalition.” *American Economic Review*, 83 (1993), 525-548.

Grossman, S. J., and O. D. Hart. “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration.” *Journal of Political Economy*, 94 (1986), 691-719.

Holderness, Clifford. “The Myth of Diffuse Ownership in the United States.” *Review of Financial Studies*, 22 (2009), 1377-1408.

Ingram, P., and A. Lifschitz. “Kinship in the Shadow of the Corporation: The Inter-builder Network in Clyde River Shipbuilding, 1711-1990.” *American Sociological Review*, 71 (2006), 334-352.

Ingram, P., and T. Simons. “The Transfer of Experience in Groups of Organizations: Implications for Performance and Competition.” *Management Science*, 48 (2002), 1517-1533.

James, H. *Family Capitalism*. Cambridge, MA: The Belknap Press of Harvard University Press (2006).

Kim, Y. T. “Korean Elites: Social Networks and Power.” *Journal of Contemporary Asia*, 37 (2007), 19-37.

Klein, B.; R. G. Crawford; and A. A. Alchian. “Vertical Integration, Appropriable Rents, and the Competitive Contracting Process.” *Journal of Law and Economics*, 21 (1978), 297-326.

Klein, B., and K. B. Leffler. “The Role of Market Forces in Assuring Contractual Performance.” *Journal of Political Economy*, 89 (1981), 615-641.

La Porta, R.; F. Lopez-de-Silanes; and A. Shleifer. “Corporate Ownership around the World.” *Journal of Finance*, 54 (1999), 471-518.

La Porta, R.; F. Lopez-de-Silanes; A. Shleifer; and R.W. Vishny. “Legal Determinants of External Finance.” *Journal of Finance*, 52 (1997), 1131-1150.

La Porta, R.; F. Lopez-de-Silanes; A. Shleifer; and R.W. Vishny. “Law and Finance.” *Journal of Political Economy*, 106 (1998), 1113-1155.

Landes, D. S. *Dynasties*. New York, NY: Viking Penguin (2006).

McMillan, J., and C. Woodruff. “Interfirm Relationships and Informal Credit in Vietnam.” *Quarterly Journal of Economics*, 114 (1999), 1285-1320.

Mehrotra, V.; R. Morck; J. Shim; and Y. Wiwattanakantang. “Adoptive Expectations: Rising Son Tournaments in Japanese Family Firms.” NBER Working Paper No. 16874 (2011).

Molho, A. *Marriage Alliance in Late Medieval Florence*. Cambridge, MA: Harvard University Press (1994).

Morck, R.; D. Wolfenzon; and B. Yeung. “Corporate Governance, Economic Entrenchment, and Growth.” *Journal of Economic Literature*, 43 (2005), 655-720.

Padgett, J. F., and C. K. Ansell. “Robust Action and the Rise of the Medici, 1400-1434.” *American Journal of Sociology*, 98 (1993), 1259-1319.

Pollak, R. A. “A Transaction Cost Approach to Families and Households.” *Journal of Economic Literature*, 23 (1985), 581-608.

Polsiri, P., and Y. Wiwattanakantang. “Thai Business Groups: Crisis and Restructuring.” In *Business Groups in East Asia: Financial Crisis, Restructuring, and New Growth*, S.-J. Chang, eds. London, UK: Oxford University Press (2006).

Rajan, R. G., and L. Zingales. “The Influence of the Financial Revolution on the Nature of Firms.” *American Economic Review*, 91 (2001), 206-211.

Sappaiboon, T. *The Fifty-Five Most Well-known Families: Version 1*. Bangkok, Thailand: Nation Multi-media Group (2000).

Sappaiboon, T. *The Fifty-Five Most Well-known Families: Version 2*. Bangkok, Thailand: Nation Multimedia Group, Bangkok (2001).

Villalonga, B., and R. Amit. “How do Family Ownership, Control, and Management Affect Firm Value?” *Journal of Financial Economics*, 80 (2006), 385-417.

Williamson, O. E. “The Vertical Integration of Production: Market Failure Consideration.” *American Economic Review*, 61 (1971), 112-123.

Williamson, O. E. “Credible Commitments: Using Hostages to Support Exchange.” *American Economic Review*, 73 (1983), 519-540.

Williamson, O. E. “Transaction Cost Economics: The Comparative Contracting Perspective.” *Journal of Economic Behavior and Organization*, 8 (1987), 617-625.

FIGURE 1

The Family Networks of the Lamsam

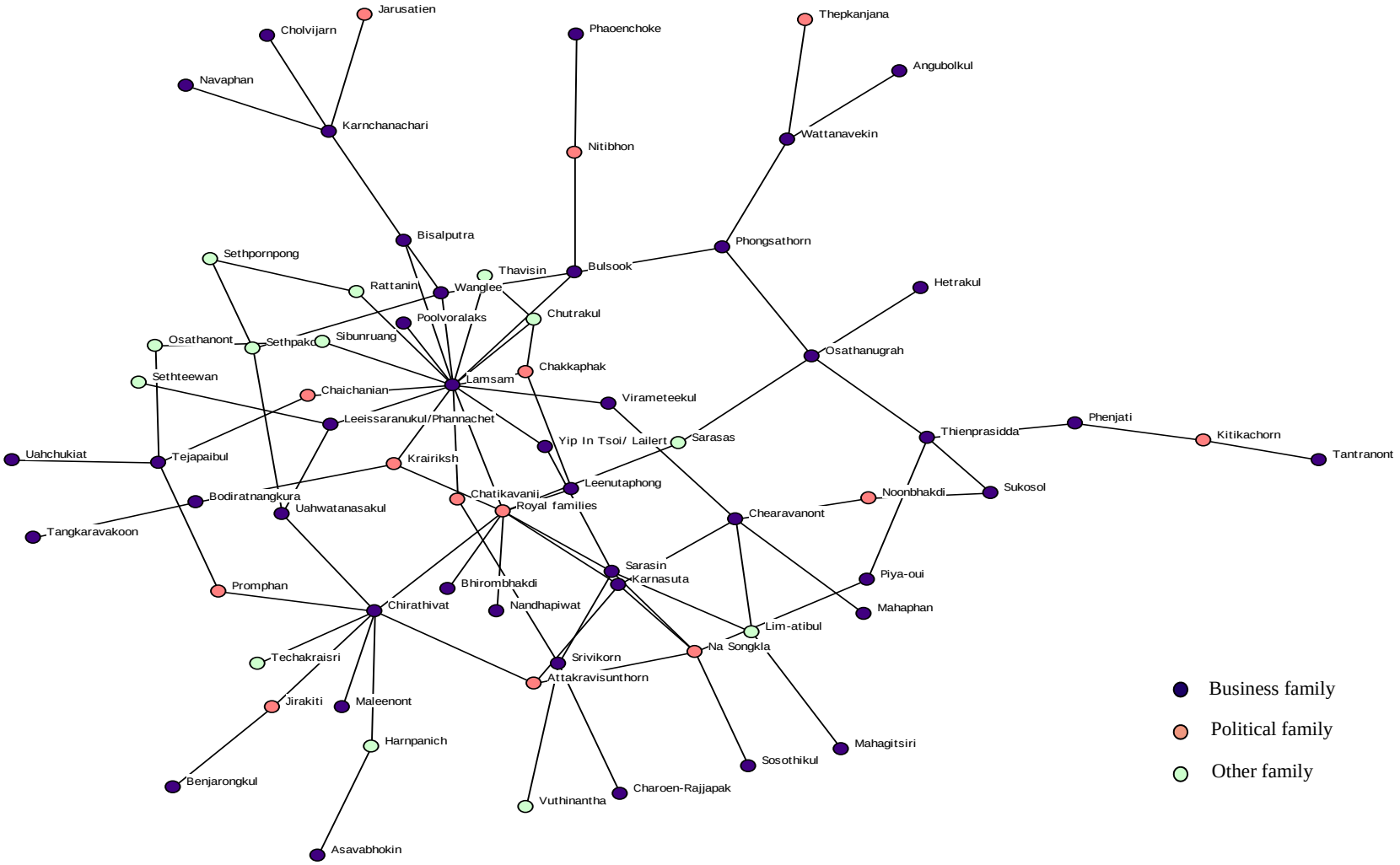

FIGURE 2

Abnormal Returns around the Weddings

This figure presents the mean cumulative abnormal returns (CARs) from 30 trading days before and after the weddings of members of the controlling family. The sample firms are publicly traded companies controlled by the families of the bride and/or the groom. The event date is defined as the first trading day after the wedding is published in *Thairath*. Network marriages are the weddings in which the partner is from a business or a political family. Non-network marriages are the weddings in which the partner is from an ordinary family.

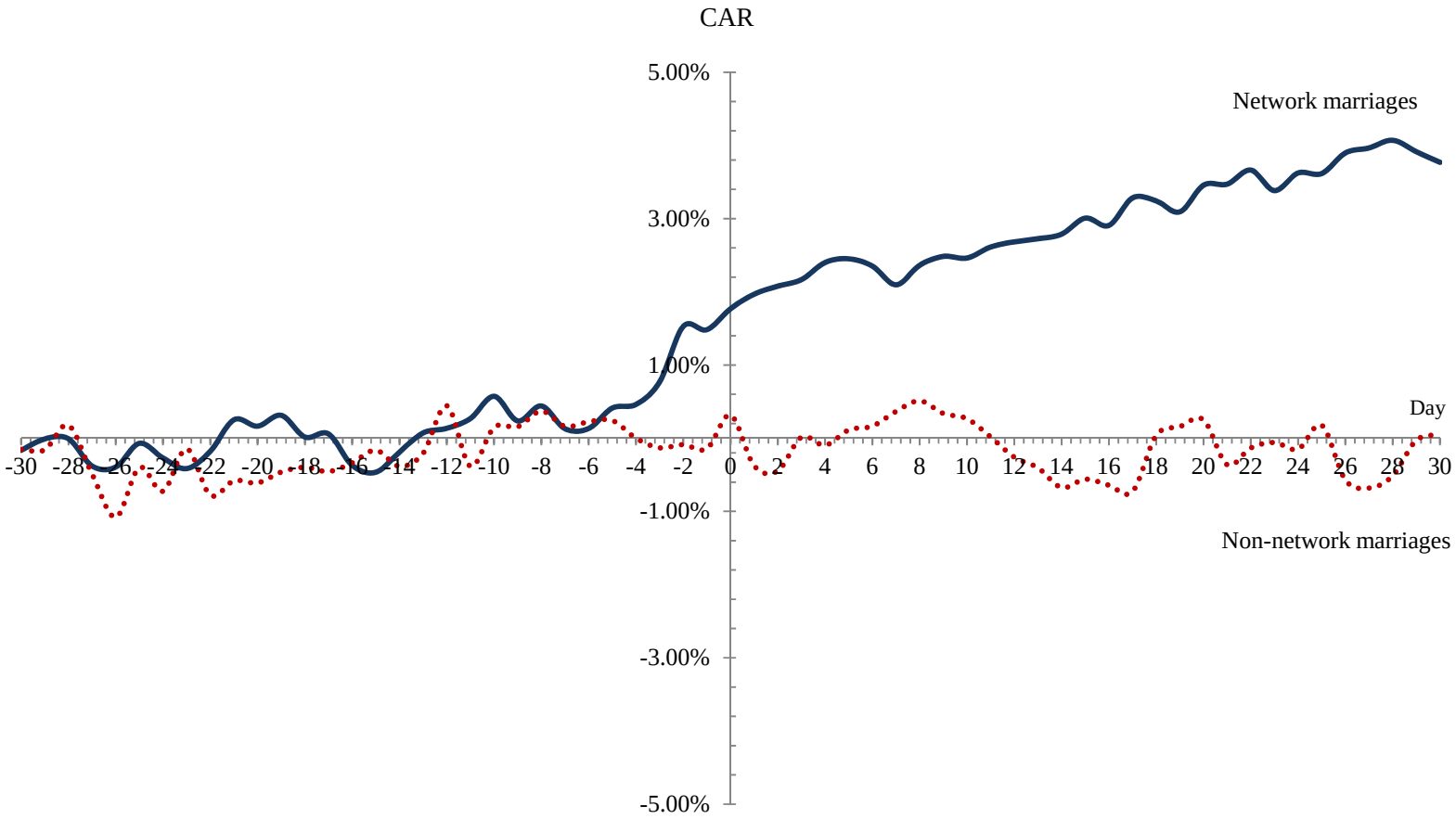
CAR
5.00%
3.00%
1.00%
-1.00%
-3.00%
-5.00%
Network marriages
Non-network marriages
Day
-30 -28 -26 -24 -22 -20 -18 -16 -14 -12 -10 -8 -6 -4 -2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30

TABLE 1

The Background of the Marriage Partner

This table presents the background of the marriage partner of the weddings held by big business families between 1991 and 2006. *Political* is a wedding in which the partner is from a political family. *Business* is a wedding in which the partner is from a business family. *Network* is a wedding in which the partner is from a business or a political family. *Non-network* is a wedding in which the partner is from an ordinary family.

		Number of observations	Percentage
A. Family background			
1	Royal, noble	9	6.4%
2	Politician, high-ranking bureaucrat, military	35	25.0%
3	Big business with listed firms *(9 couples)*	18	12.9%
4	Other business	48	34.3%
5	Foreigner	9	6.4%
6	Others	21	15.0%
	Total	140	100.0%
B. Type of family background			
	Political (1+2)	44	31.4%
	Business (3+4)	66	47.1%
	Other (5+6)	30	21.4%
	Total	140	100.0%
C. Network vs. Non-network			
	Network (1+2+3+4)	110	78.6%
	Non-network (5+6)	30	21.4%
	Total	140	100.0%

TABLE 2

The Value of Marriage: Univariate Tests

This table reports the mean and median values of the cumulative abnormal returns (CARs) around the weddings. The sample firms are publicly traded companies controlled by the families of the bride and/or the groom. The event date is defined as the first trading day after the wedding is published in *Thairath. Network* is a wedding in which the partner is from a business or a political family. *Non-network* is a wedding in which the partner is from an ordinary family. *Political* is a wedding in which the partner is from a political family. *Business* is a wedding in which the partner is from a business family. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	CAR (-3,+3)			CAR (-5,+5)			CAR (-30,+30)		
A. Full sample	Network	Non-network	Difference	Network	Non-network	Difference	Network	Non-network	Difference
Mean	1.40%***	0.15%	1.25%**	2.04%***	-0.13%	2.17%**	3.77%***	0.05%	3.72%**
p-value (clustered by family)	(0.00)	(0.83)	(0.04)	(0.00)	(0.84)	(0.02)	(0.00)	(0.98)	(0.04)
Median	0.67%***	-0.11%	0.78%*	1.01%**	-0.05%	1.06%**	2.79%***	-0.89%	3.68%**
p-value (sign-test)	(0.00)	(0.58)	(0.09)	(0.04)	(0.58)	(0.04)	(0.00)	(0.58)	(0.02)
Number of observations	110	30	140	110	30	140	110	30	140
B. By type of network	Political	Non-network	Difference	Political	Non-network	Difference	Political	Non-network	Difference
Mean	1.85%**	0.15%	1.70%**	2.60%**	-0.13%	2.73%**	5.43%***	0.05%	5.38%**
p-value (clustered by family)	(0.01)	(0.83)	(0.05)	(0.02)	(0.84)	(0.04)	(0.00)	(0.98)	(0.03)
Median	0.89%***	-0.11%	1.00%*	1.27%**	-0.05%	1.32%**	5.43%***	-0.89%	6.32%***
p-value (sign test)	(0.00)	(0.58)	(0.09)	(0.04)	(0.58)	(0.04)	(0.00)	(0.58)	(0.00)
Number of observations	44	30	74	44	30	74	44	30	74
	Business	Non-network	Difference	Business	Non-network	Difference	Business	Non-network	Difference
Mean	1.10%**	0.15%	0.95%*	1.66%**	-0.13%	1.79%**	2.66%**	0.05%	2.60%*
p-value (clustered by family)	(0.04)	(0.83)	(0.09)	(0.01)	(0.84)	(0.04)	(0.05)	(0.98)	(0.08)
Median	0.50%*	-0.11%	0.61%*	0.87%*	-0.05%	0.92%*	1.97%**	-0.89%	2.86%*
p-value (sign test)	(0.10)	(0.58)	(0.10)	(0.09)	(0.58)	(0.09)	(0.03)	(0.58)	(0.07)
Number of observations	66	30	96	66	30	96	66	30	96
Difference of mean (Political vs. Business)	0.75%			0.94%			2.78%		
p-value (clustered by family)	(0.38)			(0.44)			(0.13)		
Difference of median (Political vs. Business)	0.30%			0.40%			3.46%		
p-value (Wilcoxon test)	(0.26)			(0.54)			(0.11)		

TABLE 3

The Information and Political Connection Effects

This table reports the mean values of the cumulative abnormal returns (CARs) around the weddings. The sample firms are publicly traded companies controlled by the families of the bride and/or the groom. The event date is defined as the first trading day after the wedding is published in *Thairath. Network* is a wedding in which the partner is from a business or political family. *Non-network* is a wedding in which the partner is from an ordinary family. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Number of observations	CAR (-5,+5)
A. Real estate and construction		
Network	35	2.78%**
Non-network	2	-0.23%
Difference (Network vs. Non-network)	37	3.01%*
p-value (clustered by family)		(0.07)
B. Business with state concessions		
Network	14	2.22%**
Non-network	1	-0.04%
Difference (Network vs. Non-network)	15	2.26%**
p-value (clustered by family)		(0.04)

TABLE 4

The Business Synergy Effect

This table reports business relatedness and the mean value of the cumulative abnormal returns (CARs) around the weddings. The sample firms are publicly traded companies controlled by the families of the bride and/or the groom. The event date is defined as the first trading day after the wedding is published in *Thairath. Horizontal alliance* is a network wedding where both families have a common business. *Vertical alliance* is a network wedding where a family has a business related to the upstream or downstream business of another family. *Non-related* is a network wedding without horizontal or vertical alliance. The upstream and downstream business is defined based on the top 3 supplying/consuming industries according to the input-output table (Fan and Lang, 2000). Industries are defined based on the two-digit SIC codes of the firms controlled by the family. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Number of observations	CAR (-5,+5)
A. Horizontal alliance effects		
Horizontal alliance	9	3.56%*
Non-related	93	1.88%***
Difference		
(Horizontal alliance vs. Non-related)	102	1.68%
p-value (clustered by family)		(0.50)
B. Vertical alliance effects		
Vertical alliance	14	3.78%**
Non-related	93	1.88%***
Difference		
(Vertical alliance vs. Non-related)	107	1.90%
p-value (clustered by family)		(0.16)

TABLE 5

Marriage and Succession

This table reports business relatedness and the mean value of the cumulative abnormal returns (CARs) around the weddings. The sample firms are publicly traded companies controlled by the families of the bride and/or the groom. The event date is defined as the first trading day after the wedding is published in *Thairath*. *Network* is a wedding in which the partner is from a business or political family. *Non-network* is a wedding in which the partner is from an ordinary family. *First son of the current head* is a wedding when a groom is the eldest son of the current CEO or chairman of the largest firm in the group. *Other sons* is a wedding when a groom is not the first son of the current head. *Daughter of the current head* is a wedding when a bride is a daughter of the current CEO or chairman of the largest firm in the group. *Other daughters* is a wedding when a bride is not a daughter of the current head. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	Number of observations	CAR (-5,+5)
A. Disciplining successors		
First son of the current head	26	1.58%*
Network	23	1.76%*
Non-network	3	0.14%
Other sons	55	1.80%*
Network	39	2.38%*
Non-network	16	0.37%
Difference		
(First son of the current head vs. Other sons)	81	-0.22%
p-value (clustered by family)		(0.88)
B. Recruiting successors		
Daughter of the current head	19	1.79%*
Network	18	2.34%***
Non-network	1	-7.98%
Other daughters	40	1.16%
Network	30	1.63%*
Non-network	10	-0.22%
Difference		
(Daughter of the current head vs. Other daughters)	59	0.63%
p-value (clustered by family)		(0.60)

TABLE 6

Regression Results of the Value of Marriage

This table reports coefficient estimates of OLS regressions. The dependent variable is the cumulative abnormal returns (CARs) around the wedding of a bride/groom who is from a business family controlling publicly traded companies in Thailand. The event date is defined as the first trading day after the news is published in *Thairath*. *Network* is a dummy variable that takes a value of one if the partner is from a business or political family, and zero otherwise. *Political* is a dummy variable that takes a value of one if the partner is from a political family, and zero otherwise. *Business* is a dummy variable that take a value of one if the partner is from a business family, and zero otherwise. *First son of the current head* is a dummy variable that take a value of one if a groom is the eldest son of the current CEO or chairman of the largest firm in the group. *Daughter of the current head* is a dummy variable that take a value of one if a bride is a daughter of the current CEO or chairman of the largest firm in the group. *Board member* is a dummy variable that takes a value of one if a bride/groom holds a board position at the time of marriage. *Old money* is a dummy variable that takes a value of one if a family has been in business for at least two generations, and zero otherwise. *Log (total assets)* is the logarithm of total assets. *Leverage* is the ratio of total debt to total assets. *EBIT/total assets* is the ratio of earnings before interest and taxes to total assets. Numbers in parentheses are *t*-statistics from heteroskedasticity-robust standard errors with clustering at the family level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

	CAR(-5,+5) (1)	CAR(-5,+5) (2)	CAR(-5,+5) (3)	CAR(-5,+5) (4)
Network	0.023**	0.024**		
	(2.30)	(2.04)		
Political			0.029**	0.034**
			(1.98)	(1.99)
Business			0.018**	0.024**
			(2.04)	-2.01
First son of the current head		-0.003		-0.003
		(-0.23)		(-0.20)
Daughter of the current head		-0.002		0.001
		(-0.17)		(0.06)
Board member		-0.005		-0.002
		(-0.42)		(-0.20)
Old money		-0.017		-0.013
		(-1.29)		(-1.15)
Log (total assets)	-0.003	0.002	-0.002	0.002
	(-0.39)	(0.22)	(-0.34)	(0.32)
Leverage	-0.033	-0.055	-0.035	-0.052
	(-1.00)	(-1.34)	(-1.04)	(-1.29)
EBIT/total assets	-0.044	-0.071	-0.043	-0.068
	(-0.41)	(-0.65)	(-0.41)	(-0.62)
Constant	0.025	0.011	0.023	0.017
	(0.53)	(0.25)	(0.51)	(0.37)
Industry dummies	No	Yes	No	Yes
Number of observations	140	140	140	140
Adjusted R^2	0.040	0.093	0.046	0.080

TABLE 7

Examples of Network Marriages around the World

Country	Network Marriage
A. Emerging countries	
India	The heir of the Chaudhary group, whose worldwide industrial empire has its headquarters in Nepal, was married to a daughter of the Mittal group which dominates the world's steel industry.
Indonesia	Liem Sioe Liong the founder of the Salim group, one of the largest family business groups in Indonesia. His daughter Jane was married to Mirzan Mahathir, the eldest son of former Prime Minister of Malaysia Mahathir bin Mohamad.
Mexico	The heiress of one of the biggest business group owners, Maria Asuncion Aramburuzabala, was married to Tony Garza, US Ambassador to Mexico.
Russia	Oleg Deripaska, one of the wealthiest tycoons, who owns the world's largest producer of aluminium, was married to a granddaughter of the late former Soviet president Boris Yeltsin.
Singapore	The Didwania, a Singapore-based owner of a worldwide steel supply chain, is connected to a Calcatta-based tycoon family, the Gabodia
South Korea	The Lee family who controls the Samsung group, the biggest *chaebol*, is connected via marriages with other big *chaebols*, namely LG, Hyundai, Kolon, and Poonsan. The Chey of SK group, the third largest *chaebol*, is connected by marriage to former President Roh Tae Woo.
Ukraine	The country's second wealthiest tycoon, Viktor Pinchuk is connected to former president Leonid Kuchma by the marriage of his daughter.
B. Developed countries	
Austria	Crystal-heiress Fiona Swarovski was married to a former Austria's finance minister, Karl-Heinz Grasser.

Canada	Paul Desmarais, the 6th richest person in Canada and the owner of the Power Corporation and extensive companies, is connected to former PM Jean Chretien through the marriage of Andre Desmarais and France Chretien.
France	Jessica Sebaoun-Darty, an heiress of a French electronics-vending empire was married to Jean Sarkozy, a son of President Nicolas Sarkozy.
France/Italy	Delphine Arnault, the daughter of Bernard Arnault who is France's richest person and owner of the LVMH (Louis Vitton Moet Hennessy) luxury goods conglomerate, was married to Alessandro Vallarino Gancia, heir to an Italian wine dynasty.
Ireland/ Greece	Chryss Goulandris, a Greek shipping heiress, was married to Tony O'Reilly, one of Ireland's richest tycoons.
Greece	One of the richest shipping tycoons of the 20th century, Aristotelis Onassis was married to Athina Livanos, a daughter of another shipping magnate, Stavros Livanos.
Japan	The Toyodas (Toyota Motor) are connected via marriage networks to two former prime ministers (Nakasone and Hatoyama) and seven top business families, namely the Mitsui family (the biggest pre-war *zaibatsu*), the Shimizu family (a worldwide general construction group), the Kajima family (a worldwide general construction group), the Ishibashi family (Bridgestone), the Uehara family (Taisho Pharmaceutical), the Saito family (Daishowa Paper Manufacturing), and the Iida family (Takashimaya department store).
Spain	The billionaire Esther Koplowitz was married to Fernando Falco, Marques de Cubas, scion of a prominent Spanish family.