Bridging Relational Networks and Markets: Corporate Governance, Accounting Information and Relational Contracts

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Abstract

In relationship-based economies, operating transactions are carried out not in markets but within networks of related stakeholders. The paper presents a contracting framework to show that the primary objective of corporate governance and accounting in these economies is to facilitate firms' relational contracts with their related stakeholders and protect the interests of these stakeholders. Resolving the firms' agency conflicts with arm's length capital providers is not necessarily the primary goal of corporate governance and accounting. Thus, to reduce the agency costs of raising arm's length capital, firms will have to consider the interests of *all* its stakeholders when developing governance mechanisms that protect arm's length capital providers. I discuss two recent China papers that show how information intermediaries' embeddedness in firms' social network bridges the information gap between the firms and their arm's length shareholders. We also propose research opportunities for studying how accounting and corporate governance can bridge this information gap between relational networks and markets.

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1. Introduction

Political economy, social norm and legal development shape the ways businesses transact with each other. In the absence of well-developed markets and legal institutions, and the presence of heavy government involvement in the economy, firms in many emerging economies carry out their key operations within networks of related stakeholders rather than in open markets.[1] To facilitate the relational transactions, these firms are typically controlled by a dominant shareholder, who can build relationships with stakeholders and maintain close connections with the government. This gives rise to an ownership and corporate governance structure that is more aligned with the interests of the firms' related stakeholders than their arm's length capital providers (Rajan and Zingales, 1998). The concentration of ownership control and private transactions within closed networks also lead to low accounting transparency (Ball et al., 2000a, b; Ball et al., 2003; Fan and Wong, 2002), exposing the arm's length capital providers to the risks of being expropriated by the dominant shareholder.

The dominant shareholder faces a dilemma when he raises arm's length equity capital. On the one hand, he wants to reduce the agency conflicts with minority shareholders, which will then lower the cost of capital. On the other hand, the relational contracting practice, which gives rise to the agency conflicts, is shaped by the country's institutions. Unless he changes the way of the firm

[1] Past literature has shown that in many emerging economies, relationships can facilitate the relational credit system (Rajan and Zingeles, 1998), building political connections for property rights protection, government contracts and funding (Fisman, 2000; Fan and Wong, 2002; Leuz and Oberholzer-Gee, 2006), and business transactions that cannot be enforced by markets or law (Claessens et al., 2002; Khanna and Yafeh, 2007; Jian and Wong, 2010).

contracts with stakeholders, it is hard to alleviate the agency conflicts. However, contracting practice cannot be changed easily because the country's institutions are very slow to change.

In this paper, we present a contracting framework to show how relational contracts shape the way firms set up their corporate governance and accounting system. Specifically, we examine how firms make governance and accounting choices by trading off the benefits of facilitating transactions with related stakeholders and the costs of agency conflicts with arm's length capital providers. For instance, subjecting the firm and its stakeholders to the dominant shareholders' control will facilitate relationship building, but it will lead to private communication among the key shareholders, creating an information barrier to arm's length investors (Fan and Wong, 2003). Hiring family members into the firms, preserving the control of the firms within the families, and building relationships with politicians are ways to enhance relational contracting, but it could further reduce information transparency (Chaney et al., 2011; Fan et al., 2012). Our analysis shows that firms in relational economies adopt a stakeholder governance system. Firms' first order concern is to properly enforce the relational contracts with their stakeholders and balance the interests of these stakeholders. Taking care of the agency conflicts with the arm's length capital providers is not the only or even the primary objective of this stakeholder governance system.

Nevertheless, there is a great demand for arm's length capital in these emerging economies due to high growth. Thus, even under the stakeholder governance system, emerging market firms do develop mechanisms to alleviate the agency conflicts with arm's length capital providers. These mechanisms have to adapt to the contracting environment that relies heavily on relationships. That is, while bridging the information gap between the firms and their arm's length capital providers, these mechanisms need to protect the interests of the related stakeholders. I discuss two recent China papers (Li et al., 2019; DeFond et al., 2019) on how financial analysts and auditors utilize their embeddedness in the listed firms' social networks to increase the firms' information environment and audit quality. Importantly, as emerging market firms exploit their social networks for contracting purposes, they also use them as a channel to communicate with their information intermediaries, who can then help them alleviate agency conflicts with arm's length investors.

Using this contracting framework, we explore three future opportunities for governance and accounting research in emerging markets. First, what are the governance mechanisms unique to relational contracting that can protect the interests of stakeholders and alleviate the agency conflicts with arm's length capital providers? Are there other embedded intermediaries like financial analysts and auditors that also play the governance role in emerging economies? If social network is a channel through which intermediaries acquire private information about the firms, how can we prevent them from engaging in collusion and opportunism?

Second, do firms voluntarily convey information about their key relationships to the market? Are there public sources (e.g. firms' public disclosures, analyst reports, government's policy reports, traditional and social media) that we can acquire information about the firms' relationships with stakeholders? Can we use textual analysis to capture such information? Using big data technology, can we lower the information asymmetry between connected and arm's length investors by providing to the latter firms' relationships that previously can only be obtained through private networks? Finally, if the main goal of the stakeholder governance system is to protect stakeholders in the private networks, what is the role of financial disclosure and reporting in emerging markets? How can it be used for protecting arm's length investors? How does this role affect the properties of accounting?

Our paper proceeds as follows. In section 2, we provide a discussion on relational contracts. Section 3 explains why relational contracts are prevalent in emerging economies. We analyze how relational contracts affect the design of governance and accounting system in section 4. We discuss the two recent China papers on how embedded financial analysts and auditors enhance firms' information environment and audit quality in section 5, and propose future research opportunities in section 6. We conclude the paper in section 7.

2. Relational contracts

Klein et al. (1978) and Williamson (1979), in their seminal work on relational contracts, argue that firms rely on relationships to contract when the transactions require specific investments. That is, the investments are highly specific to the transactions in the contract and has no alternative use for transactions in other contracts. The party that makes the specific investments will worry about being held up by its counterparty once it finishes making the investments. Since transactions that require specific investments typically last for multiple periods, formal contracts cannot specify all the contingencies, especially those that prevent the holdup problem, over the entire contracting period.

One solution is for both parties to engage in a relational contract by exploiting an existing relationship or developing a new relationship. The relational contract is non-discrete (continuous) because the relationship is likely to be long-term or even permanent (e.g. family). The terms of the contract are implicit and highly specific, which can address the specificity of the investments. The contract does not have to specify many future contingencies and their resolutions because contracting parties can rely on their relationships to resolve disputes (Macaulay, 1963; Williamson, 1979).

(Granovetter, 1985, 2005) argues that firms exploit not just a dyadic tie but a social network to assist their business transactions. That is, a firm can be embedded in a network of relationships with its stakeholders through managers' or controlling shareholders' social ties. The stakeholders can include customers, suppliers, other business members, capital providers and even regulators. The social network has three distinct values to the firms. It allows for transmission of information, even if the information is highly secretive. It creates trust among the members within the network because frequent interactions reinforce their beliefs that they will not betray each other. It also forms a powerful reward and punishment mechanism to discipline their actions. A member can be ostracized by all members in the group once he takes actions that deviate from its accepted norm.[2] This becomes more useful in environments where markets and legal system are not well developed to provide the information, trust and legal protection to the contracting parties.

In order to enforce transactions that require specific investments, contracting parties will sometimes develop dyadic business ties. However, developing business ties is nontrivial. This type of relational contracts is viable only when the net benefits in developing the business ties are higher than those of alternative contracting mechanisms ranging from arm's length contracts to vertical integration or not engaging in the transaction. Likewise, developing networks of social ties (i.e. not just between two parties) just for a particular business transaction will be so prohibitively costly that it is a rare option.[3] Typically, contracting parties take advantage of their *existing* social ties to carry out relational contracts. Other than saving the costs of developing a new social network, exploiting one's existing social network can create a high level of trust that is based on members' *own* past experience. Also, in addition to future business opportunities, the expectation of future social interactions (e.g. social gatherings among friends and family) will serve as a collateral against any potential opportunism in the business transactions. In the next section, I will discuss

[2] This mechanism can protect the interests of members within the network, but it may also lead to members within the network ganging up against individuals outside the network.
[3] Fan et al. (2007) find that many controlling families of Thai firms marrying their children to each other as a way to foster social ties. It is an effective but costly way of building social ties.

how firms in the emerging economies use their existing social ties for business transactions, making relational contracts prevalent.

3. Prevalence of Relational Contracts in Emerging Economies

3.1 Emerging markets

In the aftermath of the Asian Financial Crisis in 1997, researchers began to attribute emerging economies' financial problems to their contracting practice that is relationship-based (Rajan and Zingales, 1998). Rajan (2011) argues that since emerging market firms engage in relational contracts and their relationships are unknown to foreign banks, this creates serious information asymmetry between debtors and creditors during the financial crisis.

There is a growing body of literature in accounting and finance that studies how these relationship-based transactions arise from firms' concentrated ownership and corporate structure. That is, affiliated firms that belong to the same corporate group or are under the control of the same dominant shareholder have frequent (related party) transactions with each other (Khanna and Yafeh, 2005; Jian and Wong, 2010). For these cases, it is the common ownership of the two transacting firms that give rise to the related party transactions. However, relational transactions can involve firms that are connected through network ties rather than common ownership. Though these transactions do not result from two firms that share a common dominant shareholder, they actually have an effect on the ownership structure of each of the two firms. We argue that the relational transactions that are carried out inside a social network can shape on firms' ownership and governance structures. In this section, we will discuss the underlying reasons why relational transactions based on social networks are prevalent in emerging economies. In the next section, we will explore how these transactions determine firm's ownership, governance and accounting.

The underlying reason for the prevalence of relational contracting in emerging economies is that market and legal institutions are underdeveloped. Firms cannot rely on price signals or other publicly available information to select business opportunities and enforce the contracts that arise from these opportunities. Also, the legal protection is too weak to ensure that contracting parties will fulfill their promises specified in the contracts. In East and South East Asia, the Confucius influence produces a cultural norm that promotes business transactions among individuals within families and other close-knit social groups. Firms can therefore exploit their social networks to provide information, create trust and disciplining mechanisms for their business transactions (Granovetter, 2005). There are plenty of prior research in economics and sociology which finds that firms relying on social networks as a contracting mechanism for trades in these Confucius-based economies, other developing economies and even pre-modern Europe (Greif, 1993; McMillan and Woodruff, 1999; Park and Luo, 2001; Rauch and Trindade, 2002).

3.2 The case of China

3.2.1 Social norm of China

To provide a deeper understanding of the reason for the prevalence of relational contracts, we analyze how institutions shape the way firms in China – the largest emerging market and the second largest economy in the world – do business. China historically lacked formal legal institutions for business development. The imperial courts in the Ming and Qing dynasties did not preside over commercial disputes. They relied on local gentry or village leaders to adjudicate business conflicts. Instead of basing their judgment on company laws enacted by the imperial courts, they used informal rules or norms (*li* in Chinese), which guided people's social interactions, to govern business behavior (Faure, 2006).

Reliance on social norms rather than formal law for governing business transactions means that Chinese business people can only do business within their own social networks. When exploiting an existing relationship such as an old classmate for contracting, one will invest in building stronger relationship with the classmate in order to strengthen the trust between the two parties in the contract. One's efforts in maintaining and strengthening the relationship is a form of specific investment (Williamson, 1979) because strengthening one's relationship with the classmate does not have alternative use for contracting with another party.

Another salient feature about these informal norms is that they are specific to each relationship rather than being the same for every relationship (Fei et al., 1992). That is, the rules that govern how a person treats his father is different from the rules that govern how treats a brother or a friend. The rules also vary based on the hierarchical distance between the two individuals in a tie or the closeness in relationship of the two individuals. The social norms in China, even when applied to the business context, are relationship-specific. This means that the rule that ensures a party to honor a relational contract will depend on the relationship between the two parties. A strong relationship will lower the possibility of any party reneging on the contract and increase the contracting parties' willingness to accommodate each other when contingencies arise. Western law has a universal concept of equal protection to all. In a market-based transaction, it is governed by formal rules that protect everyone the same way, irrespective of their relationship with each other in the transaction.

3.2.2 Political economy of China

Another main reason for the prevalence of relational contracts is related to China's political economy. The central government of China uses an M-form governance structure to decentralize its ruling power over the vast country (Qian and Xu, 1993). While the central government maintains control of personnel appointments, local governments control the economic power over state-owned and non-state-owned firms in the regions. Despite the economic reforms, much economic power still resides in the control of the local politicians. The power is concentrated in the government because it has never been decentralized to the market, and private property rights are not well enforced. This power is tied to a large amount of public resources including government contracts, natural resources, public utilities, operating rights, licensing, tax benefits and subsidies.

This power that the local politicians possess is inalienable – cannot be sold in open markets. However, the politicians can derive private benefits from their power through private exchanges within their social networks. The network relationships can be useful for these exchanges because they can help to create trust, convey information in secret and enforce the private exchanges. This is analogous to the private exchange of social capital within social (non-political) networks. A person with high social status within a network typically possesses a high level of social capital (Coleman, 1988). This social capital cannot be sold in a formal market but can be exchanged via a social network for private benefits. In exchange for a gift, the person with social capital can introduce another person to the network or even help him to build trust in the network. This transfer of social capital is often called giving *mianzi* in Chinese society (Ho, 1974; King and Myers, 1977; Hwang, 1987).

Similarly, politicians can give *mianzi* (transferring power) to the connected firm. For instance, a politician has the power to grant more favorable terms to a firm which enters into a construction or other service contract with the government. This is a relational contract because its terms are heavily dependent on the firm's relationship with the government. However, giving *mianzi* can happen in other contexts such as politicians' decisions to grant licenses, operating rights, tax benefits and subsidies.[4] Strictly speaking, these are relational transactions under the contexts but we adopt a broader definition in our discussion and consider these transactions relational contracting as well.

This transfer of power from the politician and the firm does not only affect their contracts. It can have a ripple effect on the firm's business contracts with other firms. For instance, if firm A obtains government resources from a politician through a social network, and uses the resources to do business with firm B, firm B needs to have close relationship with firm A or the politician in order to ensure that firm A has secured the resources. Firm B will need a stronger relationship with firm A or the politician, if the government resources are important to the contract.

The Chinese government can exert its power to influence almost all aspects of the firms' operations through granting operating rights, supplying raw materials and public utilities, enacting and enforcing labor law, levying taxes and fees, awarding subsidies and preferential industrial policies, and controlling capital raising outlets. As firms exploit their network ties with the government leaders to secure the use of these public resources, their form of contracting even at the operating levels becomes extensively relationship-based.[5]

Two recent China projects find evidence consistent with the notion that China's extensive use of relational contracts have shaped the kind of information that financial analysts need for forecasting. Wong et al. (2019a) find that Chinese analysts' forecasts are more accurate when the topics of their reports are more idiosyncratic (firm-specific) and less industry-specific. This association is significantly stronger when firms are exposed to more political uncertainty (proxied

[4] An example of giving *mianzi* can be found in a government official in a tax bureau granting a holiday to a firm in his region. Instead of issuing a written document about the tax holiday, the government official showed up in a dinner with the firms' CFO and its external auditor, making a verbal acknowledgement to the auditor that he would support the firm and its CFO.

[5] Transferring of political power within the social network can often become rent seeking activities and corruption. Nonetheless, social networks can play a positive role by providing information and enhancing the trust that politicians need for allocating resources to the firms under their control.

by politician turnovers) and political interventions (proxied by provincial industrial policies in the five-year plans). Their argument is that when firms are subject to government intervention, they have to rely more on relationships for contracting. Since relationships are highly specific, the information that is needed to analyze how the contracts will impact firms' future cash flow will also be highly idiosyncratic.

Consistent with the argument that knowledge of the Chinese firms' network relationships, especially with the government, is essential for analysts' forecasting, Wong et al. (2019b) find that foreign joint venture brokerage analysts, who face the institutional barriers to access political sensitive information or incorporating such information into their standardized forecasting models, are less accurate in their forecasting for firms that are subject to more political intervention. They also find that local brokerage analysts report more political content in their reports than that of the joint venture analysts, and only the content of the local brokerage analysts has a positive relation with forecast accuracy. Taken together, the evidence suggests that firms' reliance on relational contracts with the government is high and there is an institutional barrier for foreign joint venture analysts to access or incorporate information about these relationships into their forecasts.

4. Corporate Governance and Accounting System

The stakeholder-based corporate governance system is a firm's organizational design that resolves conflicts with its stakeholders. The conflicts arise when transactions between the firm and its stakeholders are not carried out in perfect and complete markets. Otherwise, the markets, which offer price signals to reflect true value and allow participants to costlessly switch contracting parties, can discourage opportunism and reduce the agency conflicts in their exchanges. If the firm operates in markets that are highly underdeveloped, serious contracting conflicts may arise in these operating transactions. The firm has to adopt the stakeholder-based governance system that can resolve agency conflicts even in day-to-day contracting activities.

However, if the firm's operating activities are carried out in open and matured markets, there will not be serious contracting problems in their operating transactions. This firm will adopt a shareholder-based governance system with the primary focus on resolving the agency conflicts with outside shareholders. Past U.S. literature on agency costs (Jensen and Meckling, 1976; Fama and Jensen, 1983; Watts and Zimmerman, 1986) focuses on the conflicts between the firm and its shareholders.

In emerging economies, firms' operating transactions are carried out not in matured and open markets, but in closed networks of relationships. These transactions involve stakeholders such as suppliers, customers, employees, banks, and government agencies that are highly relationship-based.[6] Relational contracts become even more common if the firms gain access to politicians' power or government resources through social ties (Wong et al., 2019 a, b). The firms adopt a stakeholder approach for its governance because conflicts will arise if the firms do not properly manage their relationships with the stakeholders. In the following subsection, we will discuss how a firm's corporate governance design reduces the transaction costs of these relationship-based contracts.

4.1 Governance design for relational contracts

One organizational design for lowering the costs of relational contracting is concentration of ownership. This will have a direct effect on corporate governance because a firm's ownership structure will affect its board and management structure. Professional managers or the board of directors that do not have effective control of the firms can be removed by outside shareholders in

[6] Even many of the emerging market firms serve arm's length customers in foreign markets, their production, financing, labor supply and regulations are heavily dependent on social ties.

a hostile takeover. By giving effective control of the firm to an owner, the firm will have stability in leadership since the owner cannot be removed in a hostile takeover. This will enable the controlling owner, together with his directors and managers, to build long-term relationships with the government and other stakeholders, facilitating the firm's relational contracting (Claessens et. al., 2002; Fan and Wong, 2002).

The concentration of ownership can further facilitate relational contracting in a number of ways. First, when the firm and its stakeholders (e.g. suppliers, customers and banks) are under the control of dominant shareholders, they can communicate among themselves privately. Comparing to diffuse ownership, firms with concentrated control are under less pressure to make public disclosures to arm's length shareholders. This allows the firm to keep confidential trade secret, and strategic decisions and private exchanges with related stakeholders including the government. Second, emerging markets are subject to more volatility due to frequent macro and political shocks (Bekaert and Harvey, 1997; Morck et al., 2000). Concentration of control allows the firms to respond quickly to any shifts in the markets.

Third, relationships are an individual's specific assets essential in relational economies. However, these assets cannot be sold in open markets. They are considered social capital that can only be transferred within a private network. If these relationships are used as core assets for the firm in relational contracting, it is best to collocate the decision rights and ownership to the person that has these relationships. This will give the person with the specific assets enough decision rights and incentives to maximize the return of these assets. Also, the specificity of the assets make external monitoring difficult. Giving the person with specific assets controlling ownership increases the alignment of interests with outside shareholders (Fama and Jensen, 1983).

This specific asset argument for explaining ownership concentration in relational economies can also shed light on why family control is a good governance mechanism for relational contracts. Although specific assets cannot be easily transferred in an open market, it can be passed down in a family (Fan et al., 2012; Bennedsen et al., 2015). That is, a person can transfer his relationships to his children because kinship ties are considered the most important and permanent relationship base in social networks (Jacobs, 1979; Fei et al., 1992). Allowing the firm's relationships to perpetuate into future generations in the family can enhance the value of the relationships in the contracts. This will also serve as an effective collateral against malfeasance because any loss in the family reputation will not only damage the existing contracts but all the contracts that can potentially be made by the future generations.[7] Family firms that rely heavily on relationships for contracting will expand the families' kinship ties through marrying their offspring to families with strong business ties (Bunkanwanicha et al., 2013). They will also groom their children as heirs so that they can preserve the relationships within the families.

Another important corporate governance mechanism that can enhance relational contracts is building political connections. Fisman (2001) finds that firms gain access to a large amount of government resources through their relationships with the government. Faccio (2006) provides evidence that this phenomenon is not only restricted to emerging economies but it can be found in firms worldwide. Firms with political connections pay less tax, receive more state bank loans and government subsidies. Past literature has found that firms in emerging economies hire CEOs or directors that are ex-government officials or have strong political connections. Some of the

[7] This is an important collateral because future generations' prosperity could enhance their ability to worship them as ancestors. This mechanism was particularly effective in China during the time when ancestral worship was still widely practiced (Fukayama, 2011).

controlling owners also serve in the parliament or even run for presidency (Bunkanwanicha and Wiwattanakantang, 2008).

Relational contracting and firms' concentrated ownership structure will have an effect on their accounting system. As argued earlier, since firms and their stakeholders are controlled by dominant shareholders, they do not have to rely on public accounting information for communication. Rather, they can communicate with each other privately. This will allow the stakeholders to keep proprietary information private, especially when they receive preferential treatments from politicians with whom they share strong social network ties. Even if the firms can ignore the proprietary costs and disclose publicly details about their contracts with the connected stakeholders, the terms of the contracts are implicit and many of them depend on the relationships with the stakeholders. This will make the information that they want to disclose hard to verify. Consistent with this argument, past research has found that as the concentration of control of emerging market firms increases, the perceived quality of the accounting information, measured by earnings response coefficient, goes down (Fan and Wong, 2002).

A salient accounting property of relational contracting is that earnings exhibit a pattern of smoothing rather than timely loss recognition. Ball et al., (2000b, 2003) argue that firms in emerging economies smooth their earnings to avoid scrutiny by the government or the public. Those that do not have strong political connections smooth their earnings to avoid government intervention. Any extreme earnings would alert government officials to increase taxation when there is a windfall profit or increase regulations when they run into financial distress. Politically connected firms also smooth earnings because extreme earnings attract public scrutiny which may embarrass the politicians with whom the firms are associated.

Other stakeholders that engage in relational contracts with the firms such as customers, suppliers, employees, banks and strategic investors will demand for smoothed earnings as well (Ball et al., 2000a). As argued in Macaulay (1963) and Williamson (1979), social norm will shape the way firms and their stakeholders enforce the contracts and resolve disputes. One commonly accepted norm is contracting parties put priorities in preserving the relationships, even at the expense of forfeiting short-term gains. Therefore, to maintain stable relationships with all stakeholders, the firms will make a commitment to smooth their earnings so that all the current and future relational contracts will not be subject to short-term fluctuation due to unforeseen economic and political factors.[8]

Following this argument, smoothing of earnings has two purposes. First, it will allow the firms to provide steady supplies to customers and payments to suppliers, employees, banks and strategic investors. Second, it signals to all the connected stakeholders that the firms' relationships with their stakeholders are stable. Otherwise, any fluctuation in earnings will signal that there are significant disruptions in the firms' relationships (e.g. a key supplier stopping shipments or the main bank recalling a big loan). These public signals are necessary even for connected stakeholders that are in the firms' private networks. Although each stakeholder can communicate privately with the firm and have knowledge about its relationship with the firm, it does not have full knowledge about the firm's relationship with other stakeholders. Stakeholders can rely on their social networks to acquire information about the firm's relationships with other stakeholders, but the public signals such as earnings and cash flows can provide confirmation about the private signals they obtain in the private networks.

[8] An example is Olympus, the Japanese camera company, which smoothed its earnings instead of taking a one-time loss for the speculation investments made in the 1980's in order to main stable relationships with its suppliers, employees and main banks.

Taken together, firms that engage in relational contracts adopt a governance system that focuses more on the interests of all the stakeholders – stakeholder approach – and not necessarily just of the outside shareholders – shareholder approach. That is, reducing the agency conflicts with arm's length capital providers is not the only or even primary objective of the stakeholder approach in governance. In fact, the governance mechanisms in the stakeholder approach often conflict with the interests of the arm's length capital providers. For instance, the appointment of directors that help the firms to build relationships rather than protecting the interests of minority shareholders or hiring family members that perpetuate firms' opacity instead of professional managers that can engage arm's length investors. In accounting, private communication among stakeholders or smoothing of earnings that facilitate firms' relational contracting will create distrust with arm's length shareholders.

However, given the contracting environment, the stakeholder approach adopted by emerging market firms is an optimal choice. Having concentrated ownership, low transparency and smoothed earnings may not be desirable to the arm's length capital providers, but for the firm as whole, it could be the best arrangement for its relational contracts. Hiring independent directors, professional managers or increasing the transparency of the accounting system may disrupt their relationships, increasing contracting costs. Given that emerging market firms continue to rely on relational contracts for key operating transactions, their top priority is not in addressing the agency conflicts with arm's length capital providers.

Nonetheless, firms in emerging markets cannot simply relying on private capital to finance their growth. Accessing arm's length capital requires the commitment to build trust and protect minority shareholders, which may conflict with their practice in relational contracting. In the next subsection, we discuss how emerging market firms develop alternative mechanisms within the relational contracting environment in dealing with the agency conflicts with minority shareholders.

5 Alternative Governance Mechanisms and Relational Contracts

In this subsection, we review two recent China papers that explore how firms adapt to the relational business environment and use alternative mechanisms to improve the firms' information environment and audit quality. Before I start discussing the papers, I will provide the background for the development of stock markets in China, which led to the demand for corporate governance that protects the interests of arm's length shareholders of these listed firms.

Prior to the economic reforms that started in 1979, all China's firms were controlled and owned by the state. Private ownership was not allowed in the communist regime. In the 1980's, China experimented with non-state enterprises, allowing villages, rather than the central or local government, to own and operate these entities. With the establishment of two stock exchanges in Shanghai and Shenzhen in 1991 and 1992, many of the state-owned enterprises (SOEs) were converted into joint stock companies and were given the permission to issue a minority portion of shares to the public. The state was required to retain majority control of the firms.

With the emergence of these partially privatized SOEs in the stock exchanges, the government had to develop a whole host of market and regulatory infrastructure and to ensure the smooth operations of the equity markets. In 1993, the government promulgated the Company Law, which specified the fiduciary duty of the board and the property rights of the shareholders. The Company Law was subsequently revised a few times, with the latest update in 2014. The government also set up a securities regulator, China's Securities Regulatory Commission (CSRC), to enforce the rules that govern firms' behavior in protecting outside shareholders.

The government has learned from the West, especially the U.S., in developing the corporate governance practice for the listed firms. They have adopted substantially the International Financial Reporting Standards (IFRS) for China's listed firms as their reporting standards in 2005, and copied the entire Generally Accepted Auditing Standards for China's auditors in 1996. China's listed firms are required to have board of directors that serve a similar function as that of their U.S. counterpart. One third of the directors are required to be independent of the controlling owners of the listed firms. The information intermediaries are also developing rapidly in China. There is a well-functioning auditor market, financial analyst market and mutual fund market in China.

As discussed in subsection 3.2, despite the economic reforms, firms are still exposed to heavy government intervention. The central and local governments control public resources that are essential to the listed firms' operations. Although there are privately controlled firms emerging in the stock markets, the large listed enterprises are primarily state-controlled firms. There is no independent judiciary in China. The courts are found to be in favor of firms that are located in the same jurisdiction as the courts (Firth et al., 2011; Lu et al., 2015). Civil litigation against fraud committed by the listed firms has been permitted since 2000 but the defendants have to be first identified by CSRC as violators before any civil claims are heard by the courts.

Prior literature in accounting and finance has found ample cases of malfeasance in the governance and accounting system in China. The malfeasance focuses on the expropriation of majority shareholders against the minority shareholders. A common theme is that the corporate governance and accounting system in China does not seem to be providing protection to the minority shareholders. Clarke (2006) argues that independent directors fail to perform their governance function because of the country's weak legal environment. There are serious earnings management activities among the listed firms (Aharony et al., 2000; Chen and Yuan, 2004). Listed firms exploit the frequent related party transactions to manage earnings (Jian and Wong, 2010) and tunnel resources to the parent SOEs (Jiang et al., 2010). Even the adoption of IFRS leads to unintended consequences. Because markets are not well-developed in China, firms can use the fair value accounting permitted by IFRS to manage earnings (He et al., 2012). China's listed state-owned firms do not have a strong demand for Big 4 or the Top 10 audit firms in China (DeFond et al., 1999; Wang et al., 2008). Recent research finds that auditors and mutual fund managers take advantage of their personal ties with the audit clients and investees, respectively, to extra private benefits (Guan et al., 2016; He et al., 2017; Gao et al., 2019).

This body of literature provides strong evidence the corporate governance mechanisms that may work well in market-based economy fail to take care of the interests of the outside shareholders in a relational economy. When emerging market firms lack the incentives to protect minority shareholders because their primary concern is protecting the interests of the connected stakeholders, these traditional governance mechanisms do not work well in such an environment. Pistor and Xu (2005a, b) argue that when legal system is not well established in China, especially when China does not have independent judiciary, China's securities regulator takes up the governance role from the court in protecting the shareholders. They call this the administrative governance system, which involves government's participation in selecting firms for IPOs, and setting up of bright line rules to regulate firms' rights offerings and maintenance of their listing status.

Administrative governance is not necessarily the only solution to emerging market firms' predicament. There is an emerging research agenda that examines how China's listed firms develop alternative governance mechanisms to alleviate agency conflicts with arm's length investors. These mechanisms evolve out of the relational contracting environment, but they can address the agency risks of the minority shareholders, helping firms bridge from the relational contracting environment to the arm's length environment when accessing the equity markets. I will discuss two papers about these alternative governance mechanisms in the following two subsections.

5.1 Embedded financial analysts and firms' information environment

Li et al. (2019) posit and find that China's listed firms use financial analysts that are socially connected with their senior executives to communicate with arm's length shareholders. They call these financial analysts embedded intermediaries and their connections are based on school ties and same birthplace. As discussed in previous sections, emerging market firms that engage in relational contracts face a dilemma in their disclosure and reporting decisions. The firms and their connected stakeholders prefer to communicate privately since the information about their relationships is either too proprietary or hard to verify when reported to the public. However, their lack of transparency will lead to high cost of capital if they want to raise arm's length capital.

Consistent with the conjecture that these connected analysts are serving the information dissemination role, they find that the presence of these embedded analysts can increase the information environment of the firms measured by the accuracy and informativeness of the forecasts of the unconnected financial analysts (i.e. analysts that are *not* connected with the firms). These results are stronger for firms that engage in more relational contracting or have incentives to raise arm's length capital. Moreover, their evidence shows that when the unconnected analysts share the same mutual fund manager client with the connected analyst, their forecasts become more accurate and informative, suggesting that the private information is disseminated through a private channel and not necessarily just through herding. This suggests that their results cannot be explained by the unconnected analysts simply copying the connected analysts' forecasts after they are publicly released, thereby increasing these unconnected analysts' forecast accuracy and informativeness.

It is interesting to note that the connected analysts do not drive out the unconnected analysts that follow the same firms, reducing the firms' overall information environment. One potential reason suggested by the authors is that an analyst, who is unconnected to a particular firm, can be connected to other firms. Also, there is a demand for their service even if they are not connected to a particular firm. Not all mutual fund managers and arm's length investors have private access to the connected analysts and they will benefit from consulting with these unconnected analysts, who can help them verify and interpret the connected analysts' forecasts.

Documenting that the embeddedness of financial analysts can lead to a positive outcome in firms' information environment raises a question why these analysts' social networks do not lead to opportunism (e.g. colluding with the firm they follow to fool the market). One possible reason is that financial analysts, as market intermediaries, care about their reputation. They rely heavily on the commission fees of arm's length institutional investors' and the analysts will only be paid if they provide useful information. It is hard for these analysts to deceive the institutional investors because their earnings forecasts and price targets can easily be checked against the actual earnings and price outcomes shortly after the predictions.

5.2 Embedded auditors and audit quality

Another recent paper that finds China's intermediaries take advantage of their embeddedness to perform a governance role is DeFond et al. (2019). In this paper, the authors argue that in relational economies, auditors need to have a high level of understanding of their client companies' relationships in order to audit their relational contracts. Deep knowledge of the relationships requires the auditors to be embedded in the network themselves. An auditor just having a one-to-one relationship with his client company is not enough. Interpreting how the relationships affect the contracts involves continuous interactions between the auditors and members of the network, enabling the auditors to gain a good grasp of the relationships that are dynamic and nuanced. Therefore, this knowledge resides in individual auditors and cannot be easily transferred to other auditors even in the same office.

Consistent with these arguments, DeFond et al. (2019) find that China's auditors develop locality-specific knowledge which is significantly positively associated with audit quality, proxied by client companies' misstatements in their financial reports. Auditors are considered locality specialists if they are ranked high in a particular province based on market share measured in audit fees. They argue that client companies' relationships tend to be localized in China because key relationship bases such as birthplace, family, school and work ties are localized. In addition, there are significant provincial trade barriers in China which promote business transactions within provinces rather than across provinces (Young 2000; Jie, Qiu and Sun 2003; Poncet 2005). The authors argue when the auditors are embedded in the client companies' social networks, they have a larger market share in the locality. The client companies prefer to hire locality specialists because they have the social capital which enables them to audit their clients' relational contracts.

However, it is not obvious that auditors' social capital in client companies' stakeholder network can lead to higher audit quality. Their network relationships with client companies can result in collusion, destroying their independence and lower audit quality. The authors of the paper argue that the auditors' social capital not only provides them with the knowledge to audit relational contracts, it can serve as a collateral against opportunism and increase audit independence. Since in China, reporting a misstatement can damage an auditor's reputation, resulting in loss of clients (Chen et al., 2019). The loss of reputation can mainly come from a sign of mistrust by the government, which the client companies will want to avoid. Therefore, an auditor's locality specialization can serve as a collateral because any loss of reputation due to collusion can lead to loss of existing clients and any future clients that come from the auditor's social network.[9]

6. Future Research

This section presents a few future research directions in the corporate governance and accounting of firms that engage in relational contracts. While aligning the firms' interests with their connected stakeholders is the primary objective of their governance and accounting system, our discussion focuses on how firms can address the agency conflicts with arm's length capital providers. Therefore, I put more emphasis on how firms can enhance the governance mechanisms and disclosure and reporting of accounting information that protect arm's length investors.

In section 5, I have discussed two recent studies that examine how financial analysts and auditors exploit their embeddedness in the social networks to enhance their knowledge of the listed firms' relationships and the associated contracts. Many new questions regarding how we can alleviate arm's length investors' agency problem is worth addressing. What new governance mechanisms, other embedded intermediaries or other methods, can perform an effective governance role in emerging economies? Can independent directors that have strong market reputation while being embedded in the firms' network serve such a role? Gao et al. (2019) find that the network relationships of China's mutual fund managers and their investees lead to serious malfeasance. What are the conditions that cause the embedded financial analysts and auditors to

[9] It is important to note that the auditor's social capital involves his social ties with network of client companies and their stakeholders in a locality. Therefore, he is not willing collude with one client and sacrifice his relationships with other clients and their stakeholders. This is different from the dyadic relationship between an auditor and his client in Guan et al. (2016) and He et al. (2017). It is more like the multilateral monitoring mechanism in Greif (1993).

perform an effective governance role, and why are these conditions missing in mutual fund managers as documented in Gao et al. (2019)?

There are other questions that could enable us to gain a deeper understanding of the role of embedded intermediaries in emerging economies. How does a person's social capital provide collateral against opportunism arising from business transactions within social networks? Are the relationships developed over a long period prior to the contract or they can be cultivated shortly before or during the contracting period? Can the relationships or knowledge of the relationships be transferred within a broader social network, not just within a family? How does the collateral against malfeasance and transferability of network knowledge affect the ways these intermediaries organize themselves into a firm and divide their work within the firm? For instance, how do they monitor each other if the knowledge they possess is highly specific and non-transferrable? How do they divide their work based on their network knowledge and can they scale up if they are constrained by its transferability?

Other than embedded intermediaries, are there other ways for arm's length investors to obtain information about firms' relationships or relational contracts? Do firms voluntarily disclose their relationships directly or provide public signals about these relationships?[10] Where do they make such disclosures and what kind of signals are used for communicating their relationships? In recent years, there are new platforms for communicating this private information. Web users that are embedded in the firms' social network can disseminate information about the firms' relationships via online stock platforms and personal blogs. Do online stock platforms provide

[10] A firm may have the incentives to voluntarily disclose the strength of its important relationships with the government and other stakeholders if the market has questions about the stability of the firm's relationships. Hong et al. (2015) argue that disruption of a firm's political relationships can significantly affect a firm's stock returns since it damages its future contracting ability.

information about firms' relationships? Who are these contributors and how can we identify them among hundreds of thousands of contributors that may only produce noise?

With the development of network and textual analysis methods, we can study how investors can glean information of firms' relationships. Using public information of the CV of politicians and directors and senior executives of listed firms in China, Piotroski et al. (2019a) have built a database of firms' network relationship with factions of politicians. This can help us identify firms' relationships in a political network. Piotroski et al. (2019b) and Wang et al. (2019) have used textual analysis to study the tone of traditional and social media and topics of official and non-official traditional media. Using network and textual analysis techniques, we can study how arm's length investors can retrieve information about firms' relationship from these public sources. For instance, we can track the information about firms' relationships from speeches of connected politicians, business transactions of connected stakeholders and other information about the firms' relationships in traditional and social media using textual analysis.

Another direction for future research relates to the role and properties of financial accounting information in relational economies. If firms heavily rely on internal communication with key stakeholders, do public disclosures and reporting serve any purpose? Is it for communicating with connected stakeholders or with minority shareholders? Since emerging market firms are likely to engage in smoothing of earnings, what can minority shareholders, and connected and unconnected stakeholders learn from firms' disclosures and reporting? Addressing these questions is important because many accounting academics and policy setters have adopted a shareholder approach in corporate governance to study and design accounting policies for emerging economies. By studying how relational contracts shape the role and properties of accounting and disclosures, we can develop better practice and devise more appropriate standards and policies that protect arm's length investors and balance the interests of all other stakeholders in these economies.

7. Conclusion

Emerging market firms face the challenge of agency conflicts with arm's length capital providers in the domestic and global capital markets. It is not an easy task to reduce the conflicts. Simply copying U.S. corporate government and accounting practice is not going to solve the problem. Not only because these countries suffer from poor legal and regulatory environment, the underlying cause of the agency problem is related to the prevalence of relational contracts in these markets.

Since emerging market firms engage in relational contracts with their key stakeholders, the primary objective of the firms' corporate governance and accounting is to protect their related stakeholders and facilitate contracting with them. Alleviating agency conflicts with arm's length capital providers is not the only or even the main focus of the firms' governance system. To device governance mechanisms that can protect arm's length investors, they have to balance the demands of the stakeholders inside their private networks and those of the investors that are from the open markets.

This paper has presented two recent China papers that examine how financial analysts and auditors, who are embedded in the listed firms' relational networks, can bridge the information gap between the firms and their arm's length shareholders. I also propose a number of future research directions using this contracting framework to understand corporate governance and accounting in emerging markets. It is worth devoting efforts to study how emerging economies could develop governance mechanisms, embedded intermediaries or other methods, that can adapt to the relational contracting environment while protecting the arm's length capital providers. With the rise of new online platforms and textual analysis technology, we could study whether and how arm's length investors can learn about firms' relationships from the new data sources and analyzing methods. The last research direction is to understand how relational contracting affects the role of disclosure and reporting in the emerging economies. This will enable us to device ways to bridge the information gap between firms and arm's length investors.

References

Aharony, J., Lee, C.W.J. and Wong, T.J., 2000. Financial packaging of IPO firms in China. *Journal of Accounting Research*, *38*(1), pp.103-126.

Ball, R., Kothari, S.P. and Robin, A., 2000. The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics*, *29*(1), pp.1-51.

Ball, R., Robin, A. and Wu, J.S., 2000. Accounting standards, the institutional environment and issuer incentives: Effect on timely loss recognition in China. *Asia-Pacific Journal of Accounting & Economics*, *7*(2), pp.71-96.

Ball, R., Robin, A. and Wu, J.S., 2003. Incentives versus standards: properties of accounting income in four East Asian countries. *Journal of Accounting and Economics*, *36*(1-3), pp.235-270.

Bekaert, G. and Harvey, C.R., 1997. Emerging equity market volatility. *Journal of Financial economics*, *43*(1), pp.29-77.

Bennedsen, M., Fan, J.P., Jian, M. and Yeh, Y.H., 2015. The family business map: Framework, selective survey, and evidence from Chinese family firm succession. *Journal of Corporate Finance*, *33*, pp.212-226.

Bunkanwanicha, P. and Wiwattanakantang, Y., 2008. Big business owners in politics. *The Review of Financial Studies*, *22*(6), pp.2133-2168.

Bunkanwanicha, P., Fan, J.P. and Wiwattanakantang, Y., 2013. The value of marriage to family firms. *Journal of Financial and Quantitative Analysis*, *48*(2), pp.611-636.

Chaney, P.K., Faccio, M. and Parsley, D., 2011. The quality of accounting information in politically connected firms. *Journal of Accounting and Economics*, *51*(1-2), pp.58-76.

Chen, K.C. and Yuan, H., 2004. Earnings management and capital resource allocation: Evidence from China's accounting-based regulation of rights issues. *The Accounting Review*, *79*(3), pp.645-665.

Chen K, Chen T Y, Han W, and Yuan H. Auditors Under Fire: The Effects of Audit Errors on the Career Prospects of Individual Auditors, 2019. Working paper.

Claessens, S., Djankov, S., Fan, J.P. and Lang, L.H., 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance*, *57*(6), pp.2741-2771.

Clarke, D.C., 2006. The independent director in Chinese corporate governance. *The Delaware Journal Corporate Law*, *31*, p.125.

Coleman, J.S., 1988. Social capital in the creation of human capital. *American Journal of Sociology*, *94*, pp.S95-S120.

DeFond, M., Li, Z., Wong, T.J., Wu,K., 2019. Competence vs. Independence: Auditor Locality Specialization in a Relational Economy. USC working paper.

DeFond, M.L., Wong, T.J. and Li, S., 1999. The impact of improved auditor independence on audit market concentration in China. *Journal of Accounting and Economics*, *28*(3), pp.269-305.

Faccio, M., 2006. Politically connected firms. *American Economic Review*, *96*(1), pp.369-386.

Fama, E.F. and Jensen, M.C., 1983. Separation of ownership and control. *The Journal of Law and Economics*, *26*(2), pp.301-325.

Fan, J.P. and Wong, T.J., 2002. Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics*, *33*(3), pp.401-425.

Fan, J.P., Wong, T.J. and Zhang, T., 2012. Founder succession and accounting properties. *Contemporary Accounting Research*, *29*(1), pp.283-311.

Faure, D., 2006. *China and capitalism: A history of business enterprise in modern China* (Vol. 1). Hong Kong University Press.

Fei, H.T., Fei, X., Hamilton, G.G. and Zheng, W., 1992. *From the soil: The foundations of Chinese society*. Univ of California Press.

Firth, M., Rui, O.M. and Wu, W., 2011. The effects of political connections and state ownership on corporate litigation in China. *The journal of Law and Economics*, *54*(3), pp.573-607.

Fisman, R., 2001. Estimating the value of political connections. *American Economic Review*, *91*(4), pp.1095-1102.

Fukuyama, F., 2011. *The origins of political order: From prehuman times to the French Revolution*. Farrar, Straus and Giroux.

Gao, X., Wong, T.J., Xia, L., and Yu, G,, 2019. Network Induced Agency Conflicts in Delegated Portfolio Management. *The Accounting Review*, forthcoming.

Granovetter, M., 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, *91*(3), pp.481-510.

Granovetter, M., 2005. The impact of social structure on economic outcomes. *Journal of Economic Perspectives*, *19*(1), pp.33-50.

Greif, A., 1993. Contract enforceability and economic institutions in early trade: The Maghribi traders' coalition. *The American Economic Review*, pp.525-548.

Guan, Y., Su, L.N., Wu, D. and Yang, Z., 2016. Do school ties between auditors and client executives influence audit outcomes? *Journal of Accounting and Economics*, *61*(2-3), pp.506-525.

He, X., Wong, T.J. and Young, D., 2012. Challenges for implementation of fair value accounting in emerging markets: Evidence from China. *Contemporary Accounting Research*, *29*(2), pp.538-562.

He, X., Pittman, J.A., Rui, O.M. and Wu, D., 2017. Do social ties between external auditors and audit committee members affect audit quality? *The Accounting Review*, *92*(5), pp.61-87.

Ho, D.Y.F., 1976. On the concept of face. *American Journal of Sociology*, *81*(4), pp.867-884.

Hwang, K.K., 1987. Face and favor: The Chinese power game. *American Journal of Sociology*, *92*(4), pp.944-974.

Jacobs, J.B., 1979. A preliminary model of particularistic ties in Chinese political alliances: Kan-ch'ing and Kuan-hsi in a rural Taiwanese township. *The China Quarterly*, *78*, pp.237-273.

Jensen, M.C. and Meckling, W.H., 1976. Agency Costs and the Theory of the Firm. *Journal of Financial Economics*, *3*(4), pp.305-360.

Jian, M. and Wong, T.J., 2010. Propping through related party transactions. *Review of Accounting Studies*, *15*(1), pp.70-105.

Jiang, G., Lee, C.M. and Yue, H., 2010. Tunneling through intercorporate loans: The China experience. *Journal of Financial Economics*, *98*(1), pp.1-20.

Jie L, Larry D Q I U, Qunyan S. Interregional protection: Implications of fiscal decentralization and trade liberalization. China Economic Review, 2003, 14(3): 227-245.

Khanna, T. and Yafeh, Y., 2005. Business groups and risk sharing around the world. *The Journal of Business*, *78*(1), pp.301-340.

Khanna, T. and Yafeh, Y., 2007. Business groups in emerging markets: Paragons or parasites?. *Journal of Economic literature*, *45*(2), pp.331-372.

King, A.Y.S. and Myers, J.T., 1977. Shame as an Incomplete Conception of Chinese Culture: A Study of Face (Hong Kong, Social Research Center, The Chinese University of Hong Kong). *ZAI, SW (1995) Chinese Views of Lian and Mian*.

Klein, B., Crawford, R.G. and Alchian, A.A., 1978. Vertical integration, appropriable rents, and the competitive contracting process. *The journal of Law and Economics*, *21*(2), pp.297-326.

Leuz, C. and Oberholzer-Gee, F., 2006. Political relationships, global financing, and corporate transparency: Evidence from Indonesia. *Journal of Financial Economics*, *81*(2), pp.411-439.

Li, Z., Wong, T.J., and Yu, G., 2019. Information Dissemination Through Embedded Analysts: Evidence from China. *The Accounting Review*, forthcoming.

Lu, H., Pan, H. and Zhang, C., 2015. Political connectedness and court outcomes: evidence from Chinese corporate lawsuits. *The Journal of Law and Economics*, *58*(4), pp.829-861.

Macaulay, S., 1963. Non-contractual relations in business: A preliminary study. *American Sociological Review*, pp.55-67.

McMillan, J. and Woodruff, C., 1999. Interfirm relationships and informal credit in Vietnam. *The Quarterly Journal of Economics*, *114*(4), pp.1285-1320.

Morck, R., Yeung, B. and Yu, W., 2000. The information content of stock markets: why do emerging markets have synchronous stock price movements?. *Journal of Financial Economics*, *58*(1-2), pp.215-260.

Park, S.H. and Luo, Y., 2001. Guanxi and organizational dynamics: Organizational networking in Chinese firms. *Strategic Management Journal*, *22*(5), pp.455-477.

Piotroski, J., Wong, T.J. and Zhang, T., 2019. Political Networks and Stock Price Co-movement: Evidence from Network-connected Firms in China.

Piotroski, J., Wong, T.J., Zhang S., and Zhang T., 2019. Firm News and Market Views: The Information Role of Official and Non-official News in China. USC working paper.

Pistor, K. and Xu, C., 2005. Governing emerging stock markets: Legal vs administrative governance. *Corporate Governance: An International Review*, *13*(1), pp.5-10.

Pistor, K. and Xu, C., 2005. Governing stock markets in transition economies: Lessons from China. *American Law and Economics Review*, *7*(1), pp.184-210.

Poncet S. A fragmented China: measure and determinants of Chinese domestic market disintegration. Review of international Economics, 2005, 13(3): 409-430.

Qian, Y. and Xu, C., 1993. The M-form hierarchy and China's economic reform. *European Economic Review*, *37*(2-3), pp.541-548.

Rajan, R.G., 2011. *Fault lines: How hidden fractures still threaten the world economy*. Princeton University press.

Rajan, R.G. and Zingales, L., 1998. Which capitalism? Lessons form the east Asian crisis. *Journal of Applied Corporate Finance*, *11*(3), pp.40-48.

Rauch, J.E. and Trindade, V., 2002. Ethnic Chinese networks in international trade. *Review of Economics and Statistics*, *84*(1), pp.116-130.

Wang, Q., Wong, T.J. and Xia, L., 2008. State ownership, the institutional environment, and auditor choice: Evidence from China. *Journal of Accounting and Economics*, *46*(1), pp.112-134.

Watts, R. and Zimmerman, J., 1986. Positive theory of accounting. *Englewood Cliffs, NY: Prentice-Hall*.

Williamson, O.E., 1979. Transaction-cost economics: the governance of contractual relations. *The Journal of Law and Economics*, *22*(2), pp.233-261.

Wang., E., Wong, T.J., and Zhang, T., 2019. Does Social Media Moderate the Tone of Information Bias in China? Evidence from the Tone of Social and Traditional Media. USC working paper.

Wong, F., Wong, T.J., and Zhang, T., 2019. Politics and Idiosyncrasy of Information: Evidence from Financial Analysts' Forecasts in a Relationship-based Economy. USC working paper.

Wong, F., Wong, T.J., and Zhang, T., 2019. Visible and Invisible Barriers: Evidence from Foreign Joint Venture and Domestic Brokerage Analysts in China. USC working paper.

Young A. The razor's edge: Distortions and incremental reform in the People's Republic of China. The Quarterly Journal of Economics, 2000, 115(4): 1091-1135.