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Share Cross-ownership Regulation and Stock Process: Evidence from the Chinese Market and Recommendations for Philippine and Vietnamese Laws

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Abstract

Cross-shareholding promotes price synchronization and reduces price lag. More importantly, this effect on price informativeness is evident for large companies and during market downturns. In general, the relationship between cross-ownership structure and stock price informativeness exists clearly. This paper investigates the impact of share cross-ownership on stock prices as a measure of price informativeness from companies listed on the Chinese stock exchange. The paper has learned an overview of cross-ownership and the stock market in China through jurisprudence analysis and comparative jurisprudence method. At the same time, the author also discusses the positive effects of regulation and cross-ownership structure on stock prices to better understand the relationship between cross-ownership and price dynamics through the impact of cross-ownership on the information environment. A notable point that the paper also discusses is the advantages of symmetric cross-ownership compared to the process of merger of joint stock companies to determine the balance between market efficiency and the social welfare loss brought about by symmetrical cross-ownership. From there, the paper will evaluate the influence of cross-ownership in Vietnamese and Philippine laws through agency theory and corporate governance models, and will finally make some recommendations for Philippine and Vietnamese laws.

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In the context of economic integration, businesses that rely only on accumulating capital to achieve profit goals will gradually lose their advantage to make a breakthrough in the long term. Due to the limited resources available to individual companies and the complexity of financial markets, companies often hold a portion of the shares of other companies and allow themselves to be cross-owned to use more resources and further promote strategic alliances to gain more benefits (Amundsen & Bergman, 2002). Many simple estimates of the company's equity value under a cross-ownership structure have been made, and many studies suggest that cross-shareholding will impact the information environment (Fischer, 2013). A tighter monitoring system exists among companies with cross-ownership, and such cross-ownership can reduce information asymmetry among shareholders (Brooks et al., 2018). Furthermore, such an impact is due to the process of reducing moral hazard and limiting the opportunistic behavior of shareholders through legal provisions. Improving the information environment due to company characteristics can incorporate more stock price-specific information and remove irrational factors that further influence price informativeness (Lee & Liu, 2011).

Regarding stock price informativeness, companies in emerging economies (where investor protection and the institutional environment are relatively poor) have higher information asymmetry than firms in developed economies. Furthermore, firm characteristics or institutional environment significantly influence stock price informativeness (Dong et al., 2016). A more transparent information environment leads to more company-specific information being included in stock prices so that investors can observe how consistent the stock prices are. The uniformity of stock returns is positively related to the information environment due to the research scope of investors and trading "uncertainty" (Crawford et al., 2012). Accordingly, if the improvement of the information environment arising from cross-shareholding accelerates the production of company-specific information, then it can be observed that there is a negative relationship between stock cross-ownership and stock price informativeness. If the improvement of the information environment removes external factors, the informativeness of stock prices will increase along with the centrality of the companies in the cross-ownership network.

In this article, the author analyzes some regulations on the cross-ownership structure of Chinese stocks, especially the influence of regulations on listed companies and their shareholders. Cross-ownership is considered a combination of listed companies and shareholders. Thus, a web of legal constraints on equity in the stock market exists. Individual companies will be linked by cross-shareholding between companies, forming a diversified cross-ownership network. Within this network, stock price synchronization is evident among firms with equity constraints (Ma et al., 2011). In addition, cross-ownership networks can accurately reveal complex relationships in the stock market (Chang & Wang, 2017). Therefore, the paper applies complex network theory to assess cross-ownership further to reveal the impact of cross-ownership on price informativeness, thereby providing some recommendations for Philippine and Vietnamese laws on regulations related to the cross-ownership of shares and share prices in the stock market.

Theoretical Framework

In recent years, institutional cross-ownership in the Philippine and Vietnamese stock markets has increased. Cross-ownership is an emerging informal shareholder association formation system in which co-shareholders hold ownership of two or more companies in the same industry (He & Huang, 2017). Studies have demonstrated that investors participating in cross-ownership networks enjoy more voting power, more opportunities for face-to-face communication, and avoidance of exit threats (López & Vives, 2017). At the same time, Antón also demonstrated that the process of corporate innovation, hedging from hostile mergers and acquisitions, and corporate governance would also be improved if the cross-shareholding structure is well utilized (Antón et al., 2018). However, some scholars argue that for profit, some companies in the cross-ownership network can also collude within the corporate group, distorting the market mechanism and detrimental to market competition (Azar et al., 2018). From these bases, the article continues to analyze the relationship between the cross-ownership of shares between companies and risks from the rise and fall and stock valuation. The paper also verifies the relationship between cross-ownership and stock price from two perspectives: (i) resource effect; (ii) surveillance effect.

However, in Vietnam and the Philippines, there have been few scientific studies on cross-shareholding and research on taking advantage of the mechanism of cross-share ownership to influence stock prices. According to the research process and the author's limited ability, the laws of Vietnam and the Philippines have few detailed regulations on cross-shareholding; this is also one of the challenges of taking advantage of the cross-shareholding model of companies in the two countries ineffective. Therefore, the author wishes that this article can contribute to the study of cross-shareholdings affecting the stock process through information and data from China— one country has successfully taken advantage of this model in developing the stock market through cross-ownership regulations.

Materials and Methods

The analysis of cross-ownership networks using complex network theory in this article indicates how cross-shareholding regulations might affect stock price informativeness. Cross-shareholding improves price informativeness through price synchronization, especially with long-term investment relationships between large companies. There is a need for a better information environment through cross-shareholding. In contrast, small firms tend to hold shares in each other with short-term arbitrage or capital adequacy purposes. The status and goals of the small company will not promote the positive effects of cross-ownership because short-term goals require only a small amount of information about stock valuation.

Regarding market conditions, extremes can occur to market information in times of crisis, leading to a more substantial impact of cross-ownership on stock price synchrony (Li et al., 2019). The paper acknowledges that stock price synchronicity is an important indicator to measure how much information is reflected in prices in different markets. Therefore, more emphasis is placed on the network. In other words, investors must be cautious when analyzing indicators of price synchrony across the existing network of cross-shareholdings.

The principal methodology used in this paper is the jurisprudence analysis and comparative jurisprudence methods. The jurisprudence research method was used to conduct this paper because it helps to systematize and interpret the law within the research area. This is the primary method in jurisprudence research to help researchers understand and evaluate the law based on whether the current law is systematic, logical, and coherent. From there, other research methods can be conducted to evaluate and improve the law. The main activities of this method are analysis and synthesis. For the comparative jurisprudence approach, this paper mainly compares Chinese law with Vietnamese and Philippine laws regarding cross-shareholding.

Results and Discussion

Overview of cross-ownership and the stock market in China

The 2008 global financial crisis took its toll on most countries, including developed countries like China and the United States. However, since 2019, China has seen a positive change in financial products, so it has made a good move while the US still faces economic challenges (Eng et al., 2019). Due to its strong growth and growing reputation, China's financial market has risen to the top of the world financial market. From this breakthrough, China has become the second-largest economy in the world, and its stock market has also emerged as the second-largest stock market in the world.

Regarding the stock market, the Shanghai Stock Exchange (SHSE), established in December 1990, and the Shenzhen Stock Exchange (SZSE), established in July 1991, show some distinctive characteristics only China now has. The first is that the traditional asset pricing theories of the Chinese stock market have become a distinct feature. For example, retail investors' trading activity plays a significant role in the Chinese stock market. Traders who are legal entities account for less than 20% of total securities trading volume, and more than 85% of free-market shares were owned by more than 101 million individual securities trading accounts in 2016 (Liu et al., 2019). This shows that the distinctive feature of the Chinese stock market is its focus on developing individuals and thereby forming the theory of asset valuation based on the judgment of individuals instead of investment experts who are legal entities. However, this standard feature is accompanied by irrational transactions because the individuality of investors is too high, quickly leading to a stock market crisis. A gauge of investor sentiment at the individual stock level could be an essential asset pricing factor in the Chinese stock market, from which the trading environment and investment failure investment will lead to a general crisis that, without the adjustment of the law and the intervention from the fiscal policies of the state, the financial market crisis will take place.

The first feature that has led to the second feature of the Chinese stock market is instability, most characterized by self-healing with regime change and state policy. The volatility of the Chinese stock market is often influenced by small investors rather than by a long-term trend in a series of behavior over time (characteristic of the US stock market) (Nartea et al., 2013). The third feature of the Chinese stock market is the existence of strict limits on trading with foreign institutions, especially the constraints on IPOs and insider trading that have made the market less liberal (He et al., 2019).

Regarding regulation and cross-ownership structure, many listed companies in China have been legally allowed to hold shares of other companies since 2005. At the same time, traditional trades tend to hold shares of financial institutions or businesses in their early years. This process makes the cash flow into the economy virtual instead of bringing many benefits to the real economy (the economy focuses on emerging industries and fields such as technology and energy). It is worth noting that to have more capital or more opportunities to outperform in an initial public offering, most companies on the Chinese stock market hold shares in each other to create a network of cross-shareholdings and exploit investment potential from units in the network. Some companies in the cross-ownership network act as short-term arbitrageurs through informal investments, especially when the derivatives market is volatile. Chinese legislation and oversight mechanisms from government agencies will have to map out a roadmap and various measures to address these outstanding issues.

From the network perspective, the author finds that cross-stock ownership in China significantly affects stock price informativeness through stock price synchrony. The following article analysis will show that the more transparent a company's information environment is, the more its stock price is synchronized. This is because the underlying information that is available ensures a better information environment for investors, leading to a stock price that is easier to value. In addition, a transparent information environment will help investors improve their prediction of future financial risks and reduce the possibility of unexpected risks. Cross-ownership structure in China shows that a company holding a central position in the network (holding an important role, especially holding much information) will have the most significant advantage in limiting information asymmetry.

Another point worth noting in China is that large companies with lower price lag, especially those with a central position in a cross-ownership network, will have a better-quality information environment and lower level of risk. As a result, stock prices will reflect current market conditions rather than just historical figures for previous financial years. Furthermore, investors can consider shareholders with a high cross-shareholding ratio through public data such as balance sheets or financial statements (if available). Therefore, cross-shareholding can improve the information environment a company has access to, which in turn can improve the stock valuation process and accurately shape the stock market. This conclusion has important symbolic significance and is a reference for developing countries such as the Philippines and Vietnam.

Positive effects of regulation and cross-ownership structure on stock prices

First, the positive impact of cross-ownership structure on stock valuation is undeniable, especially for large companies that play a central role in cross-shareholding networks. This is because the stocks of large companies take a more central position in the cross-ownership network, leading to a trend towards more fair pricing and reflecting market information more effectively than small firms (Zhang et al., 2013). Large companies have stable future cash flows, reducing their sensitivity to shocks in the stock market. Therefore, experienced stock investors (large companies) often prioritize investing in long-term profits to strengthen the linkage effect between shareholders and build a high-quality information environment through a cross-ownership network.

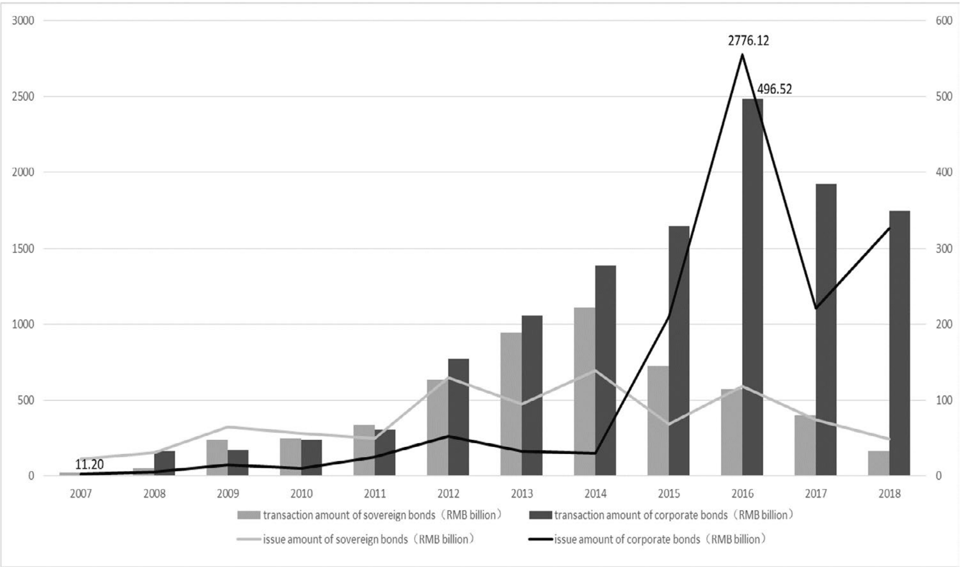
Taking advantage of the legal provisions on cross-shareholding is equally crucial because, according to the market adaptation theory, the market efficiency changes over time and according to the existing regimes that the agency sets by the state (Lo, 2004). In essence, cross-ownership has only a small effect on stock price informativeness during a boom. However, the effect of cross-ownership becomes more vital during a downturn, especially when applying legal provisions on cross-ownership to stabilize the declining market. Specifically, the practice of applying cross-ownership legislation will increase investment in financial markets to make more flexible decisions instead of constraining the market by prudent decisions (Wen et al., 2014). Through cross-ownership calculations, investors will pay more attention to company information during market downturns, thereby offering strategies to hunt for reasonable stock prices or even large spreads.

Regarding cross-ownership structure, the degree of concentration of ownership by significant shareholders is an obstacle to incorporating specific information into stock prices (Boubaker et al., 2014). In particular, companies with state-owned equity will lead to a less transparent environment and make gathering information from cross-ownership networks expensive. A more transparent information environment from a group of private companies will generate more specific information and broaden the scope of analysis in emerging economies, thereby helping to improve stock valuation efficiency. Cross-ownership has an impact on stock buying and selling decisions. For example, cross-ownership reduces terrible decisions caused by outside takeovers, and long-term commercial relationships through cross-ownership reduce moral hazard among shareholders and restrict opportunistic behavior in commercial contracts (Ang et al., 2002).

Moreover, cross-shareholding also changes shareholders' preference in the investment process for stock and is used as a strategic tool to prevent other investors from entering the market (Harford et al., 2011). Thus, the model of cross-shareholding among private companies will help the stock market be more vibrant and transparent. For example, the following figure shows that government bonds are often less developed than corporate bonds because corporate bonds are issued between companies in the same cross-ownership network, which helps keep prices competitive and meet the investment needs of more investors.

Figure 1

Corporate bonds and sovereign bonds in China from 2007 to 2018. The data come from the WIND database



Sovereign bonds approved by China's National Development and Reform Commission show restrictions on issue quantity and price by strict state regulations and no linkage and price comparison from the cross-ownership model. The chart above shows that both the issuance and trading volume of government bonds is significantly less than that of corporate bonds. This is because corporate bonds have relatively easy issuance conditions and are supported by transparency in a cross-ownership structure (Li et al., 2019). Corporate bonds are generally more market-oriented and, therefore, more active in the stock market.

Regarding the information environment in the cross-ownership network, companies holding more shares can take advantage of more information and financial resources. This is because a strict supervisory mechanism will exist between companies and reduce information asymmetry among shareholders in the same system. Firms with a higher degree of cross-shareholding will have more information between companies, which can then combine information about future returns more quickly and value the stock more efficiently. For indirect cross-ownership between companies, this type of ownership structure reduces transaction costs and provides two-way information for internal monitoring (Brockman & Yan, 2009). Furthermore, legislation and internal guidelines will compel companies to provide two-way communications and encourage disclosure. Therefore, the relationship between cross-ownership and price dynamics through the impact of cross-ownership on the information environment is an important opportunity for companies in the current period.

Advantages of symmetric cross-ownership compared to the process of merger of joint stock companies

Assuming a small group of monopolies cross-own a particular share of each other in the same network, symmetric cross-ownership can be profitable for any participating firm if the ratio is low. The initial share ownership ratio is relatively small and gradually expands later. Symmetric cross-ownership is never profitable if the initial number of participating firms is high, with a threshold for proportional ownership of shares. When a sufficient number of participating companies are within the proportional threshold, the return of cross-ownership shareholders will depend on the degree of share ownership. Furthermore, cross-ownership can be better than horizontal mergers because symmetric cross-ownership is more profitable and constitutes a wise strategy to avoid possible legal challenges.

In addition, cross-owners can appreciate more than out-of-network companies without inventory constraints, which provides an additional incentive to see where it can be exhausted in different ways. Especially for mergers, profits between competing firms in the same industry may not be profitable, and this is known as the merger paradox (Ghatak & Kali, 2001). More specifically, when the competing firms are a monopolistic industry, and the marginal costs of production are constant, mergers will not be as profitable as participating in a symmetric cross-ownership network. Since cross-ownership is often referred to as a "partial merger," a partial merger is about giving the buyer control of the company's overall pricing decisions. Compared to a complete merger, cross-shareholding is more beneficial because it brings part of the essence of mergers and flexibility in an ownership arrangement that can significantly reduce competition through strategic complementarities (Edmans et al., 2019).

Another critical point is that mergers are often subject to antitrust scrutiny and are often opposed by state agencies if there is an element of contravention of the law. If the merger and acquisition process does not take place in accordance with the law, the shareholders cannot be exempt from responsibility (Gu, 2018). In contrast, the symmetric cross-ownership strategy has two main benefits: (i) avoidance of scrutiny from public authorities; (ii) gradually achieving the goal of acquiring all shares through a cross-ownership network. As a result, companies may consider cross-ownership an attractive strategy and avoid the scrutiny of competition regulators. This is because the competition authority will consider the balance between market efficiency and the social welfare loss brought about by symmetrical cross-ownership; therefore, they will be less likely to interfere in the cross-ownership strategy of companies because the cross-ownership structure is often more beneficial.

Cross-ownership in Vietnamese and Philippine laws through agency theory and corporate governance model

Current corporate legislation in the Philippines and Vietnam emphasizes management processes that ensure operational efficiency and corporate interests. The agency theory of centralized corporate governance introduced into Philippine and Vietnamese laws shows that managers' vital task is to ensure shareholders' interests properly. From agency theory, many assumptions have been made, and legislators have been concerned that managers are self-interested and, therefore, shareholders need to monitor them.

Cross-shareholding reduces the proportion of shares traded on the public market with the vital role of protecting the company from takeovers and limiting self-interest from managers. Thus, viewed objectively, the regulations on cross-shareholding in the laws of the Philippines and Vietnam align with the theory of agency and prevent the self-interest process from the current governance model of joint stock companies. Furthermore, the shareholding structure and corporate governance in the Philippines and Vietnam show significant changes due to numerous legal amendments in the two countries. For example, institutional investors have increased control over managers to keep the value of shares high, especially as cross-ownership remains stable over the long term.

Regulations on cross-shareholding as a tool allow controlling shareholders to have a considerable degree of autonomy. Therefore, as long as the managers' personal interests are controlled to a certain extent and consistent with the interests of shareholders, cross-shareholding can benefit shareholders and bring autonomy to managers in the company. The governance model favored by CEOs and boards is that shareholders have less oversight, and managers work more diligently because they can pursue self-interest autonomously (Wu et al., 2022). Managers' motivations may differ from those of shareholders, but the interests between shareholders and managers are not necessarily completely different. In the case of cross-shareholding, the companies' shareholders will not have the right to supervise each other. This may lead to a tendency for managers to work harder because they have more autonomy to seek their interests. It is noteworthy that the private interests of managers and shareholders in the case of cross-shareholding will always be balanced to an appropriate degree because the cross-ownership of shares can benefit shareholders.

Applying the regulation on cross-ownership is a commitment by shareholders not to supervise and not offer to buy shares publicly before they are offered to shareholders in the cross-ownership network. By this commitment in accordance with the law, managers can autonomously seek personal benefits, and this also benefits shareholders.

On the one hand, cross-ownership ensures the similarity of interests between managers and shareholders. On the other hand, because shareholders reduce supervision, the difference between the interests of shareholders and managers is not significant and likely to be equal, so social welfare becomes higher by allowing Managers to be free to make decisions that are both in the interest of significant shareholders and the interests of managers. Cross-shareholding regulations in Vietnam and the Philippines are against a public offering unless all the companies in the network refuse to buy shares from the internal offering. Therefore, if a manager violates this regulation, he or she may be fired and liable for damages. With cross-shareholding, managers often choose a risky project with a high expected return to bring optimal benefits to the company. If this risky project is for self-interest, cross-ownership functions as a method of punishment for not making the appropriate investment (Fama & French, 2015). Primarily the project is related to the internal offering of shares before the public offering.

Recommendations for Vietnamese and Philippine laws

Firstly, Philippine and Vietnamese laws must stipulate that companies in cross-ownership networks must accurately disclose inside information affecting stock prices and the stock market to the competent authorities for appropriate regulation. Information on cross-ownership from companies in the network can significantly reduce the risk of a stock crash in the market. Therefore, the obligation to provide information from companies in each cross-ownership network to the authorities will help the state intervene promptly. For developing economies such as the Philippines and Vietnam, this provision of disclosure obligations will help ensure the growth of non-state-owned listed companies and companies in less developed regions. This is because the quality of a company's disclosure and financial constraints affect each other.

The risk of a stock price crash manifests as a rapid decline in stock prices or broad market indexes without prior warning (Jin et al., 2006). Asymmetric information theory suggests that when unfavorable information is stored in a company beyond what is allowed, at a later stage, this information is released to the market in a decentralized manner and leads to unstable stock prices (Kim et al., 2011). From the perspective of information asymmetry, cross-ownership will reduce the ability of significant shareholders to hide insufficient information and reduce a company's information asymmetry through monitoring, thereby limiting the risk of a stock price crash. On the one hand, cross-ownership shareholders as major shareholders strengthen the supervision capacity based on the principle of check and balance of interests, thereby reducing the rate of bad behavior. Cross-ownership networks, on the other hand, allow representatives of each unit company to participate directly in lower-level corporate governance and improve the quality of corporate group disclosures. If recognized and encouraged by law, this process will help improve a company's transparency in the market and reduce the risk of a stock price crash.

Second, the laws of Vietnam and the Philippines should measure cross-ownership as broadly as possible in order to accelerate the positive effects of cross-ownership on stock prices. Because increasing cross-ownership reduces information asymmetries between firms and investors, especially companies in a central position in the cross-ownership network will have more valuation information on the stock market, and their shares will be valued at fair valuations, leading to a higher degree of price synchronization and better investment attraction. If a company is in a more central position in a cross-ownership network, improving the information environment will accelerate the creation of company-specific information. Wide-ranging stock price measurement is essential as stock prices frequently decline, and the COVID-19 pandemic has exacerbated the stock market's vulnerability, making investors and Government agencies pay more attention to the negative economic consequences of stock price risk. This risk affects investor confidence and harms the market's resource allocation efficiency. In order to avoid affecting the healthy development of the economy in Vietnam and the Philippines, it is essential to measure the risks of stock price appreciation and maintain capital market stability through the cross-ownership structure.

From a partnership perspective, measuring cross-ownership improves synergies between companies. It increases the market share of a group of companies by communicating internally between management, thereby facilitating knowledge sharing and coordination of resource allocation on the principle of equality and peer-to-peer. If recognized by Vietnamese and Philippine laws, this measurement process will reduce capital flow problems and reduce the risk of a decline in the price of unsold shares. However, share ownership by companies in cross-ownership networks will often limit the entry of new investors and widen financial channels. Therefore, the law also needs to ensure a mechanism for new investors to join the network of cross-ownership to help minimize the risk of stock price collapse due to over-prioritizing the buying and selling from inside the network.

Conclusion

With the development of cross-shareholding between financial institutions and businesses, financial linkage networks have become essential when studying group development and stock pricing dynamics. Based on the financial relationships in the cross-ownership network, companies can expand their portfolios from an efficiency valuation perspective. Investors in cross-ownership networks can utilize more financing and update their strategies to optimize return on investment, positively impacting stock pricing behavior and risk tolerance. Therefore, the article makes recommendations for Philippine and Vietnamese law that it is necessary to stipulate that companies in cross-ownership networks have an obligation to accurately disclose complex relationships in the stock market and continue to find out the development law of cross-ownership network structure. Legislators need to measure cross-ownership broadly further to reveal the impact of cross-ownership on stock price informativeness.

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