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Exploring divestitures: Studies on motivation factors and tools

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EXPLORING DIVESTITURES:
STUDIES ON MOTIVATION FACTORS AND TOOLS

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I hereby declare that this DBA dissertation is my original work, and it has been written by me in its entirety.

I have duly acknowledged all the sources of information which have been used in this DBA dissertation.

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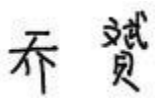

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ABSTRACT

This paper explores the phenomenon of 'big company disease' commonly experienced by large companies as they expand. In Western markets, companies are more inclined to respond to the financial market by undergoing divestitures to address this issue. Divestitures simplify the company's structure, making it easier for investors to understand its value. Consequently, this facilitates companies in acquiring more capital resources and provides strong incentives for management. However, in emerging markets, divestitures are less likely due to a less developed financial market and the advantages associated with maintaining a large size and control.

The first study focuses on how listed companies in the US respond to the financial market when making divestiture decisions. The second study explores the motivations of Chinese companies through three case studies, revealing that non-capital market related factors and the competitive nature of the industry significantly influence divestiture decisions in Asian big companies. The third study examines the divestiture strategies employed by Asian companies. The findings highlight that listed companies are more inclined to respond to market dynamics, seek third-party investor groups, relinquish control over divested units, and provide management incentives. The study emphasizes the importance of

advanced corporate governance to facilitate beneficial divestitures. Additionally, it shows that private companies, when compared to state-owned enterprises, are more likely to relinquish control over divested units. It underscores the significance of introducing private capital into state-owned companies and deepening mixed-ownership reform to provide incentives and improve efficiency. In conclusion, divestitures are effective ways to address the 'big company disease' in Asia.

Keywords: divestitures, divestiture tools, ownership concentration

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1 Research Motivation

Companies have been developing and facing different market environments at different times, and they need new strategies to address real-world problems, such as efficiency decline and lack of innovation that may arise when the company expands in size. When a company grows to a certain scale, it often leads to an increase in the number of departments and management levels, and decision-making requires multiple levels of approval. The efficiency of decision-making may be hindered when there are new business opportunities that arise, as the multi-level decision-making process may impede the ability to seize the best timing for these opportunities. Emerging new business opportunities may not receive sufficient resource support due to the overshadowing of existing mature businesses. Sometimes, even when new business directions are identified, there may not be sufficient motivation and enthusiasm to explore them.

The concept of the "big company diseases" is widely accepted and primarily refers to the situation where an enterprise expands in size, diversifies its business, and increases its management levels, leading to bureaucratic organizational structures, low efficiency, deviations in execution, information blockages, or distortion in transmission. This can result in slow response to new business opportunities, missed chances, and even the decline of the company. The manifestations of this disease include bloated and inefficient organizations, poor coordination, low morale, overconfidence leading to extreme expansion, and slow response to new technologies or trends.

Companies in various countries, including those in the Fortune 500, have

experienced the "big company diseases". Mr. Kazuma Tateishi, the president of Japan's Tateishi Electric Corporation, is believed to be one of the first entrepreneurs to introduce this concept. In the early 1980s, he observed that many actions within his own company were slow, basic management instructions were difficult to convey and fulfil immediately, and it sometimes took months to provide satisfactory responses to customer demands. He compared companies to humans, stating that as they grow and age, they become bloated, lose vitality, and eventually become sick.

The General Electric Company (GE) of the United States, which we are familiar with, was also a patient of "big company diseases". When Ralph Cordiner became CEO in 1950, GE had 25 major business units. During Cordiner's tenure, the business expanded dramatically, and by 1969 GE had 305 business units and 400,000 employees. The company is under increasing pressure, and while GE's sales continue to rise, profits are not. It shows that in the second and third quarters of 1967, GE reported earnings declines of 11% and 18%, respectively. The period between the late '50s and the end of the '60s of the 20th century was known as "the era of profitless prosperity" due to the negligible profit margins and return on investment from soaring sales figures.

When Jack Welch took over as CEO of GE in 1981, the company had 12 management levels, 43 strategic business units, and 410,000 employees. The expansion of the business led to an increase in sales, but the profit margin was weak. In the early 80s, GE had $20 billion in sales and only $1 billion in profits. It wasn't until Welch overhauled GE that GE was reinvigorated.

Our neighbouring country, South Korea, has also been a patient of the “big company diseases” Daewoo Group, which once ranked second in South Korea's conglomerate sector, was founded by Kim Woo-jung, who believed in the myth of the "invincible horse." He prioritized expanding the company's scale and adopted an "octopus-like" management model, rapidly expanding through mergers and acquisitions but disregarding the side effects of large-scale expansion. Kim Woo-jung blindly pursued globalization, establishing automobile factories in Poland, Uzbekistan, Vietnam, and other countries. The expansion of the automotive business exceeded the company's financial and management capabilities. Daewoo had to divert billions of dollars from other businesses such as shipbuilding and trading to support the automotive business. They also engaged in fraudulent accounting practices to deceive banks and ultimately collapsed during the Asian financial crisis.

Kim Woo-jung's diligence and hands-on approach were prominent characteristics of his management style, but it also led him to develop a habit of making decisions unilaterally, with very little collective effort in the company's decision-making process. This is a common problem among many family-owned businesses in South Korea, where the internal management structure is highly centralized, and the decision-making power is concentrated in the hands of the CEO, their family members, or relatives, failing to attract the best external management talent or incentivize executives. These conglomerate companies in South Korea possess significant economic and political power and often engage in cross-cooperation with the government. Their resources and funds are often not obtained

from the market. Perhaps due to the ease of acquiring resources, there is a tendency to impulsively invest and expand into unrelated businesses, which can be done somewhat recklessly.

Many large enterprises in China are also facing problems. Chinese large enterprises are mainly represented by state-owned enterprises. These large enterprises in China have some similar problems to those of large enterprises in the United States. One major issue is the formation of bureaucracy. Due to the massive scale of Chinese state-owned enterprises, decision-making processes can become complex and slow, requiring multiple layers of approval, resulting in inefficiency. Bureaucracy can also lead to a lack of innovation and flexibility, as decisions often need to be approved by multiple departments, which can slow down project progress.

Another problem is the influence of internal political factors on resource allocation. In some cases, internal politics may overshadow business needs, leading to resources being allocated to departments closely related to senior leadership rather than to departments that truly need them. This unfair distribution of resources can lead to waste and inefficiency, as resources are not being utilized properly. For example, China National Petroleum Corporation (CNPC) is somewhat influenced by bureaucracy. CNPC is one of China's largest state-owned oil and gas production companies. Despite its large scale and extensive global business, the company also faces some common issues. Firstly, due to its massive organizational structure and complex decision-making hierarchy, decision-making processes often require approval from multiple levels, resulting in long decision cycles that hinder project

advancement and market responsiveness. Secondly, there are internal political factors at play in resource allocation. For instance, certain projects may receive more resources and support due to intervention from senior leadership or closely related departments, while other departments may be neglected or lack resources. This unfair distribution of resources can lead to inefficiency and waste. Additionally, CNPC also faces the issue of declining employee motivation. The presence of bureaucracy and internal political factors can have a negative impact on employees. Even if the company is able to attract talented employees, this atmosphere can make them feel frustrated and disappointed. Employees may feel that their efforts and talents are not fully recognized and rewarded, gradually losing their motivation and drive. This can also lead to talent loss, making it difficult for the company to maintain competitiveness.

In contrast, the common problems of China's private enterprises are similar to those of large enterprises in South Korea. The larger the enterprise, the easier it is to obtain resources, and it is also easier to hastily expand into multiple diversified industries. The ease of obtaining resources as the enterprise grows larger may also be one of the factors that drive these enterprises to expand rapidly. Alibaba is a good example to illustrate this point. As a private enterprise, Alibaba has developed rapidly in recent years and has become one of the world's largest e-commerce companies. Alibaba's expansion in various fields such as finance, logistics, and cloud computing is a typical example. Although these investments have brought significant growth and revenue to the company, they have also raised concerns about the company's ability to effectively manage such diversified businesses.

Alibaba's rapid expansion has also raised concerns about its market dominance and its impact on smaller competitors. Therefore, although rapid expansion has brought short-term benefits to Alibaba, there are still risks of diversification and challenges in effectively managing its various businesses.

There are several theories about why state-owned enterprises are prone to large enterprise problems. The first theory is the property rights theory. State-owned enterprises have unclear ownership due to the public ownership structure, which inevitably leads to low efficiency in production and management activities. Only privatization of property rights can clarify ownership and fundamentally solve the problem. From the perspective of property rights theory, the reason why private enterprises are more efficient than state-owned enterprises is that the owners and managers of private enterprises are the same, so the owners of private enterprises have the motivation to improve enterprise efficiency. However, due to the unclear property rights structure of state-owned enterprises, the willingness of managers to improve enterprise value is weakened. State-owned enterprises are owned by the entire people, but the ownership is only nominal, and the people do not enjoy any actual rights of the enterprise. The actual ownership of the enterprise belongs to the government, but the government does not directly participate in the enterprise's management, but it is managed by designated managers as the controllers and operators of state-owned enterprises. These managers receive salaries according to the salary standards set by the government. Although there may be incentive methods such as bonuses, overall, the correlation between salary standards and enterprise performance is relatively low. The lack of effective incentives may cause

managers to not aim for profit maximization in the management process and may be accompanied by a tendency towards personal interest maximization and a pursuit of power. This leads to a proliferation of departments, and a concentration of cadres, resulting in low efficiency.

There are domestic scholars who support this view. Wu (2004) proposed that state-owned enterprises have three major aspects that are not in line with market economy: first, unclear property rights; second, lack of competitiveness; third, the goals of management personnel are not aligned with the interests of the enterprise, resulting in low efficiency in the production and operation of state-owned enterprises. Therefore, property rights reform should be carried out on state-owned enterprises to make them more in line with the market economy. Zhang (1998) proposed the need to introduce other types of capital to reform state-owned enterprises and make the introduced capital participate in corporate governance and decision-making as shareholders, while weakening the management role of original state-owned capital. This can form an effective governance structure and fundamentally solve the problems of institutional rigidity and low efficiency in state-owned enterprises. These views are more in line with the modern property rights theory developed by Professor Hart of Harvard University, that is, the control rights and income rights of enterprises should overlap. Due to the dispersion of equity in American companies, CEOs are often appointed to make decisions, thus having actual control rights over the company but not the same level of income rights. Jensen & Murphy (1990) conducted statistical analysis on the salary and bonus of CEOs of 1,400 listed companies in the US from 1974 to 1988, and the

stock options and ownership of CEOs of 430 largest listed companies in 1988. They found that changes in executive compensation did not reflect changes in company performance. The research data showed that the impact of changes in company value on CEO salary and bonus was only 6.7 cents per $1,000 change, and considering other benefits such as options, the overall impact on CEO compensation was $2.59. This study also reflects another issue. Many people believe that when a company becomes large and enters a stable period, the role of company executives is not significant, and the incentive given to them is not closely related to company performance. Unless a large company is in a period of change, the efforts of company managers may not be highlighted. Unlike small businesses, the efforts of the management team in large enterprises may not be reflected in the company's performance immediately. Due to the less obvious result of individual effort in large enterprises, the incentive is low, which in turn affects individual enthusiasm. This is another symptom of the big company diseases.

Another theory is the fair competition theory. Lin Yifu et al. (2004) believe that in the case of information asymmetry, the root cause of the lower efficiency of state-owned enterprises compared to private enterprises is the burden of policy. The policy burden, such as social responsibility, borne by state-owned enterprises in the process of operation leads to a situation of "high input and low output", and therefore the primary task of state-owned enterprise reform is to reduce the non-economic responsibilities that state-owned enterprises bear.

Bai et al. (2006) argue that the purpose of state-owned enterprises is not primarily to make money, but to stabilize society, so state-owned enterprises must

inherently bear social responsibilities. Any field that requires stability should be handled by state-owned enterprises, while other areas can be marketized. For example, state-owned enterprises are more suitable for basic research, while private enterprises can actively commercialize and implement research results. Tao & Hui (2018) metaphorically compare state-owned enterprises to McDonald's self-operated stores. McDonald's has both self-operated stores and franchised stores. McDonald's keeps low-profit self-operated stores to establish the brand, while franchised stores rely on the brand as a public good and the original incentive mechanism to achieve efficient profitability. State-owned enterprises are similar to McDonald's self-operated stores, while private enterprises are like franchised stores. Although private enterprises are more efficient and grow faster, state-owned enterprises bear the responsibility of stabilizing society, especially during crises or economic downturns. Therefore, this study believes that state-owned enterprises should retain their state ownership in sectors involving social responsibilities, while other sectors can be privatized and marketized to improve efficiency.

The issue of the "big company diseases" is worth exploring because it exists widely in different types of enterprises, cultures, and geographical backgrounds, and has broad impacts. In state-owned enterprises, this problem often stems from bureaucratic structures, lack of competition, and political intervention. These factors may inhibit creativity, hinder market responsiveness, and impede efficient resource allocation. On the other hand, in private enterprises, this pathological condition may arise from excessive pursuit of growth and expansion, leading to loss of focus, management mistakes, and increased risks. This problem is not limited to

specific regions or industries. It can be observed in both developed countries and developing countries, across various sectors such as manufacturing, finance, technology, and services. The adverse effects of the "big company diseases" may hinder economic growth, limit employment opportunities, and impede overall social progress.

Scholars and experts have proposed various solutions to address the issues of large corporations, with some advantages and disadvantages in practice. Soft solutions include strengthening corporate culture, establishing performance evaluations, providing profit sharing and stock incentives. However, these solutions have been found to have their limitations in practice. Strengthening corporate culture may inspire employee identification and mission, but forming executable systems is questionable. Performance evaluations are also a double-edged sword, as the setting of indicators needs to be clear and limited but may lead to the neglect of important matters outside the indicators or the disregard of overall efficiency in order to achieve the indicators. Moreover, it is more difficult to set evaluation indicators in large corporations, and department managers' efforts often only reflect in departmental performance, inconsistent with the overall performance of the company. Profit sharing is a common incentive method, but it is premised on profits. New businesses may not produce profits immediately, and profit sharing is only short-term incentive and lacks transferability. Stock incentives are also a common practice in large companies. However, under the existing corporate framework, the available part of stock incentives is limited, and the implementation process is complicated. Hard solutions to address the issues of large corporations include

cutting redundant organizations and personnel. However, layoffs may have a negative impact on the company and society and may affect company morale.

Divestiture can become a way to solve the "disease" of large corporations and improve the efficiency of large companies. Divestiture can solve the problem of private enterprise having too many businesses. At the same time, divestiture can also solve the problem of lack of motivation in the management of state-owned enterprises and policy burdens of state-owned enterprises. First, divestiture initiates company reform, allowing the company to restructure its business and focus on its core competitiveness. By divesting non-core assets or businesses, the company can simplify operations and improve efficiency. This can save costs, increase profitability, and improve performance. Second, divestiture can help companies adapt to changing market conditions and focus on emerging growth opportunities. Third, divestiture can attract new investors interested in acquiring divested assets or businesses. This can bring new capital and expertise, which helps improve the company's competitiveness and innovation. Fourth, divestiture can help companies optimize their capital structure and improve their financial performance. By divesting non-core assets or businesses, the company can reduce its debt level and improve its credit rating, thereby reducing capital costs and improving financing channels. Fifth, divestiture promotes the reallocation of resources, helping companies to get rid of underperforming or non-strategic assets or businesses, thereby improving their overall investment portfolio management. This can bring a more streamlined and effective organizational structure, enabling the company to quickly adapt to changing market conditions and capitalize on emerging trends.

Sixth, divestiture can also motivate management by re-adjusting interests and responsibilities. It can enable more effective allocation of interests and responsibilities within the company, thereby improving the overall performance of the organization. It can provide management with the opportunity to obtain ownership of divested assets or businesses, which can motivate them to improve performance and create value. Seventh, state-owned enterprises can promote efficiency by divesting non-policy-critical sectors and privatizing them.

To address these issues, we explore how dives to revitalize corporate enthusiasm, capture new technological or market opportunities, and make large companies full of vitality by divestiture and providing effective incentive mechanisms. This paper is divided into three parts of research. The first study aims to explore the factors that affect the To address these issues, we explore how to revitalize corporate enthusiasm, capture new technological or market opportunities, and make large companies full of vitality by divesting and providing effective incentive mechanisms. This paper is divided into three parts of research. The first study aims to explore the factors that affect the divestiture of US listed companies. The second study selects three representative types of enterprises (state-owned enterprises, listed enterprises with individual controllers, and family businesses) to study the motivations of Asian companies' divestiture. The third study aims to explore the choices of different ownership enterprises in divestiture. of US listed companies. The second study selects three representative types of enterprises (state-owned enterprises, listed enterprises with individual controllers, and family businesses) to study the motivations of Asian companies' divestiture. The third

study aims to explore the choices of different ownership enterprises in divestiture. rom an academic perspective, researchers can gain a deeper understanding of the fundamental mechanisms of divestiture. This knowledge can provide valuable insights for theoretical frameworks and enhance our understanding of corporate behaviours, decision-making processes, and value creation strategies. For managers, understanding the factors driving divestiture decisions can assist them in making informed strategic decisions regarding corporate restructuring and resource allocation. Divestiture can have an impact on market competition, industry dynamics, and economic growth. By studying the factors that drive divestiture, policymakers can develop informed regulations and policies that promote entrepreneurship, innovation, and market efficiency.

Since the 1990s, China has introduced mixed-ownership reforms for state-owned enterprises, primarily through methods such as public listing, private enterprise participation, state-owned enterprise mergers, and employee stock ownership. These reforms involve the divestiture of state-owned enterprises and the introduction of various types of capital. Understanding the decision tendencies of different types of companies in divestiture and restructuring can provide valuable information for policymakers. As a country's level of economic development increases, the concentration of corporate ownership tends to decrease. Japanese companies, for example, are typically held by a wide range of shareholders, while companies in Indonesia, Hong Kong, and Thailand are predominantly controlled by families. State-controlled enterprises have played important roles in Indonesia, South Korea, Malaysia, Singapore, Thailand, and China, but have subsequently

undergone a series of state-owned enterprise reforms. Studying the divestiture and restructuring of various types of companies in Asia over the years can provide empirical evidence for policymakers in developing countries.

Overall, studying divestiture and its various aspects from an academic perspective can provide valuable insights for both researchers and policymakers, leading to a better understanding of corporate behaviour, informed decision-making, and the formulation of effective policies.

2 Divestiture Under Anglo-American Context

2.1 Application of Divestiture

Divestiture has a long history in the United States dating back to the early 20th century (Grealis, 2022). It has been gaining popularity in recent years. Spun off firms account for approximately 17% of all new public firms in the US from 2000 to 2020.

Divestiture has proven to be a value-creating strategy. According to Feldman's analyses of U.S.-based acquisitions and divestiture over the past ten years, shareholder returns to divestiture announcements are more than twice as high as shareholder returns to acquisition announcements. Additionally, her review of recent literature shows that the average abnormal return to divesting firms upon divestiture announcements is +3.0%, as opposed to a -0.7% abnormal return to acquiring firms upon acquisition announcements (Feldman, 2021).

Similarly, McKinsey & Company found that companies that actively manage their business portfolios through acquisitions and divestiture create

significantly more shareholder value than those that passively hold their businesses. The study looked at the performance of the 200 largest U.S. corporations from 1990 to 2000. At the end of the decade, $100 placed in the average active manager in January 1990 would have grown to be worth $495, while $100 invested in the average passive manager would have only increased to $353. It was further discovered that the performance of the active managers varied significantly. Those who carefully balanced their acquisitions and divestiture outperformed others who had a narrower concentration on either (Dranikoff et al., 2002)

In Feldman, 2022, the results of a study of all S&P 500 listed companies from 1995 to 2021 show that the market reacts differently to acquisition announcements and divestiture announcements, where the average cumulative abnormal return (Carnahan) of companies after divestiture announcements has been consistently higher than that of acquisitions announcement, and the discrepancy persisted until 36 months after the announcement (Feldman, 2021).

2.2 Economic Motivations of Divestiture

According to the collation of the literature, companies usually choose to divest under the following circumstances.

First of all, the organization will decide to divest when the performance of the enterprise's business sector diminishes. Empirical research has found that divestiture decisions are usually related to business units with weaker strength. When the competitive or financial strength of a business unit is weak, companies tend to choose divestiture (Duhaime, 1984). Desai's empirical research also

suggests a positive correlation between spin-offs and underperforming business units or subsidiaries (Desai, 1999).

Second, a company may decide to divest if its value is underestimated due to over-diversification. Excessive diversification will cause the enterprise's overall value to be underestimated. The term "diversification discount" refers to this phenomena (Feldman, 2022). The overall value of a diversified organization is often 13% to 15% less than the sum of its component operations, according to empirical research findings (Berger, 1995). Additionally, the overall discounted value of a diversified organization increases with increasing operating variances within its business sectors (Todd, 2018). Therefore, a divestiture can free up value for a diversified business.

Thirdly, the decline in a company's innovation capability is another reason why a company may be divested. In overly diversified companies, the evaluation of department managers shifts from strategic evaluation to financial evaluation in order to reduce information processing costs. In companies with low levels of diversity, department managers are evaluated based on both their financial performance and their strategic applicability, but in companies with high levels of diversity, financial performance takes precedence, causing department managers to place less emphasis on R&D investments in order to mitigate risks (Hoskisson, 1990). This shift in focus of performance evaluation causes department managers to be distracted from other important issues. Although they must continue to make short-term operational decisions, they may postpone taking on long-term commitments (Hoskisson, 1994). As a result of their shift in appraisal priorities,

department managers will develop a risk-averse mindset and compromise company performance to lower their own job risks. Therefore, divestiture to reduce a company's excessive diversification is beneficial for enhancing the company's innovation capability (Hoskisson, 1990).

Fourth, the company may decide to exit certain of its businesses if they do not strategically complement other divisions. For businesses to create sustained competitive advantage, they require a cohesive strategic emphasis. Empirical study has shown that splitting a company's business sector, which does not align with the company's overall strategy, typically results in a positive stock market reaction as well as an increase in overall efficiency (Comment, 1995; Markides, 1992, 1995). Daley et al.'s research indicates that if a company's divested business unit is in the same industry as its core business, the benefits of divestiture may not be significant. However, if the divested business unit is in a different industry, it can result in a significant increase in benefits (Daley, 1997).

Fifth, when a certain business sector of a company is in an unfavourable competitive position within its industry, the company may choose to divest that business sector. Harrigan suggested that it is wise for a company to exit a declining industry as soon as possible if competitors are cutting prices or damaging the industry's profitability in other ways (Harrigan, 1980). Whether an industry is attractive, or declining is not only determined by simple indicators such as rapid industry growth or continuing profitability of the company. A business sector of a company may still be profitable, but the company should still exit the industry. According to Porter's Five Forces model, the attractiveness of an industry depends

on the company's competitive position in that industry, and the company needs to examine five aspects: barriers to entry, bargaining power of buyers, bargaining power of suppliers, threat of substitutes, and intensity of competition (Porter, 1979). A company may overlook a poor industry structure and enter an industry with vague assumptions, thinking that the industry matches their own business. Companies also tend to enter rapidly growing industries without thinking, as they confuse early growth with long-term profit potential (Porter, 1987).

Sixth, a company may choose to divest due to information asymmetry with external stakeholders such as securities analysts and investors. If external securities analysts are not familiar with the industry in which a company operates, the company's stock valuation will be greatly discounted. Especially as companies expand into many different industries, external stock analysts may only be familiar with the company's original industry (Zuckerman, 1999). Gilson et al. also found through empirical research that improving a company's industry focus can improve the intermediary services of securities analysts with industry knowledge in capital markets. Their accuracy in predicting the value of the company will greatly improve as the company's focus increases (Gilson, 2001).

2.3 Non-economic Motivations of Divestiture

In the past, divestiture decisions were believed to be primarily driven by economic considerations, such as industry decline or unsuccessful expansion strategies. However, strategic scholars are increasingly aware that many completely different non-economic considerations can influence divestiture decisions

(Feldman, 2021). The following are some non-economic considerations that can hinder corporate divestiture decisions.

First, the deep historical connections between business units and the company make the company unwilling to divest that unit. Companies often do not like to divest businesses with historical heritage, even if the business no longer creates much value. This is because divesting this business may mean that many old employees who have worked in the company for decades will lose their jobs (Feldman, 2022). Research has found that a company's legacy business has a profound impact on its value. Feldman studied the performance of 300 American companies from 1980 to 2000, of which 56 companies divested their legacy businesses. The study found that although the market initially reacted well to the divestiture, in the four years after the divestiture, the operating performance of the company divesting the legacy businesses was lower than that of the company retaining similar legacy units (Feldman, 2014).

Second, cognitive and organizational inertia of company management can affect divestiture decisions (Shimizu, 2005). When a company decides to acquire a business, the management team usually focuses on the success of the acquisition strategy (Porter, 1987), and naturally assumes that the acquisition will be successful, even if negative signals are sent by the acquired business unit (Ocasio, 1997; Prahalad, 1986). The company's management team may also be influenced by managerial hubris (Duhaime, 1985; Hayward, 1997), which causes them to view poor performance of business units as temporary setbacks and therefore ignore the possibility of divestiture (Levitt, 1988). In addition, acquisitions often involve

significant financial and managerial resource investments (Hitt, 2001), which are likely to result in sunk cost bias, making it difficult for company executives to change their initial acquisition strategy (Shimizu, 2005). Some studies also suggest that because companies tend to integrate acquired companies through more resource investments, this tendency makes them not think about the need for divestiture (Nelson, 1982).

Third, the interdependence between business units can also affect divestiture decisions. If there is a high degree of sharing of technology, facilities, and customers between a company's business units, it is difficult for the company to divest that business (Duhaime, 1984).

Fourth, a company's historical performance gaps can also affect its divestiture decisions (Vidal, 2015). Performance feedback theory suggests that the degree of a company's participation in organizational change is influenced by the gap between its actual performance and its expected level (

Chemmanur, 2011; Greve, 1998). Performance gaps can be negative or positive; a negative performance gap occurs when a company's actual performance is below the relevant expected level, while a positive performance gap occurs when a company's performance exceeds the expected level. The larger a company's positive performance gap, the more likely it is to apply divestiture strategies to organizational change (Vidal, 2015).

Fifth, a company's past experience with divestiture also affects its divestiture decisions (Villalonga, 2005). Empirical research has shown that the more experience a company has with divestiture, the more likely it is to use

divestiture strategies, while companies with less divestiture experience are less likely to use divestiture strategies (Bergh, 2008).

Sixth, internal social comparison costs can also affect a company's divestiture decisions. When company employees compare their salaries with those of colleagues in other business units, it can create internal social comparison costs for the company (Nickerson, 2008), including reduced productivity (Obloj, 2017), talent loss (Carnahan, 2012; Kacperczyk, 2018), and decreased team cooperation (Gino, 2009, 2010; Shaw, 2002). Therefore, companies with greater salary gaps are more likely to apply divestiture strategies (Feldman, 2018).

Seventh, public stigma towards divestiture can also affect divestiture decisions. There is a general negative attitude towards divestiture among the public, as people tend to see acquisition as a sign of a company's strength and performance growth, while divestiture implies fragility or even failure. Therefore, company executives who want to implement divestiture strategies have to overcome public stigma towards divestiture (Dranikoff, 2002).

2.4 Summary

In economies following the Anglo-American model, the drive to create wealth comes from competition for control over companies. This competition is facilitated by relatively efficient and liquid equity markets. Companies that fail to prioritize wealth maximization may face difficulties in raising capital. Therefore, they may struggle to maintain their existing capital base or provide financing for expansion into new areas.

Companies that fail to maximize wealth may face significant consequences. They may go bankrupt, releasing labor and other resources for companies that prioritize wealth maximization, or they may be acquired by companies focused on maximizing wealth. One example is General Electric (GE), a multinational conglomerate that has faced significant challenges in recent years. GE's excessive focus on short-term financial performance, combined with mismanagement and accounting issues, led to a decline in stock price and financial distress. In order to rebuild investor confidence and stabilize its financial situation, the company had to divest assets, reduce costs, and restructure operations.

In any case, agents who fail to prioritize the interests of minority shareholders are expected to be replaced by competitive financial capital. One example is the case of Qualcomm. In 2018, competitor Broadcom launched a hostile takeover bid for Qualcomm, the American semiconductor and telecommunications equipment company. Qualcomm's board of directors rejected the proposal, citing concerns about regulatory approval and undervaluation of the company's assets. However, some institutional investors and activist shareholders criticized Qualcomm's management, arguing that they prioritized the interests of majority shareholders, namely CEO Steve Mollenkopf, over minority shareholders. These investors believed that Mollenkopf received substantial compensation, including $240 million in stock awards, while the company's stock price remained stagnant. They also raised concerns about Qualcomm's governance and transparency, including the lack of diversity and independence on the board of

directors. As a result, some institutional investors and activist shareholders demanded changes in Qualcomm's management and board composition, including the appointment of independent directors and the separation of CEO and board chairman roles. Eventually, Qualcomm reached a settlement with some of these investors, agreeing to appoint two new independent directors to the board and establish a committee to review executive compensation. This example highlights that under the corporate governance system in Europe and America, institutional investors and activist shareholders can demand changes in the management and board composition of a company when it fails to prioritize the interests of minority shareholders.

Therefore, ultimately, concerns about corporate governance in Anglo-American countries boil down to concerns about addressing the "big company diseases" in these countries, which ultimately stems from concerns about inefficient capital markets and agency problems in management.

3 Divestiture Under Asian Context

3.1 Characteristics of Corporate Governance Systems in Asia

First, there are large presence of state-owned companies. Take China for example. According to the data, from the end of 2022 to the first half of 2023, the proportion of China's state sector in the country's top 100 listed companies, as measured by total market capitalization, continued to increase. It rose from 57.2 percent to 61.0 percent, with almost all the increase coming from companies that

are majority-owned by the Chinese state. For the first time since the end of 2019, the share of the private sector, defined as firms with less than 10 percent state ownership, fell below 40 percent in the first half of 2023. The private sector's share was only 8 percent at the end of 2010 and had peaked at 55.4 percent in mid-2021. Second, in the Asian region, there is a high concentration of share ownership. The separation of ownership and control is a characteristic of modern large-scale enterprises. As early as 1932, Berle (1932) discovered that the contemporary American corporation had a dispersed ownership structure, resulting in a separation of ownership and control. The shareholders (principals) of a joint stock company hold ownership in the form of stocks and delegate authority to managers (agents) to operate the business on their behalf. A study by Claessens et al. (2000) analyzed the separation of ownership and control in corporations across East Asia. Their results indicated that the degree of control concentration tends to decrease as a country's economic development level increases. Companies in Japan are usually held by a broad range of shareholders, while those in Indonesia, Hong Kong, and Thailand are primarily under family control. State control also plays a significant role in Indonesia, South Korea, Malaysia, Singapore, Thailand, and China. The separation of ownership and control is more significant in family-owned business in Asia. Claessens et al. (2000) estimates that two-thirds of the sample of Asian companies are controlled by a single shareholder. Even in Japan, where the concentration of share ownership is relatively low, there are cross-shareholdings between companies, which means that a few shareholders hold control over the company and minority shareholders cannot influence the company's decisions. This

high concentration of share ownership can lead to several issues. For example, controlling shareholders may prioritize their own interests over the interests of the company as a whole. Minority shareholders may be overlooked and unable to participate in the company's decision-making process. Additionally, if there are conflicts of interest among shareholders, this may affect the company's decisions and long-term development.

Third, family businesses are very common in the Asian region. According to estimates by Morck et al. (2005), the output of the top 15 family businesses accounts for 84% of Hong Kong's GDP, 76% in Malaysia, 48% in Singapore, 46% in the Philippines, and 39% in Thailand. Since family businesses are usually owned and controlled by family members, they have some unique characteristics in management. For example, family businesses often focus on long-term development rather than short-term profits because they want to pass the business on to the next generation. In addition, family businesses often have strong family culture and values, which may affect business decisions and operations. However, family businesses also face some challenges. For example, because family members usually control the business, conflicts of interest and mismanagement may arise. In addition, family businesses may lack professional management and governance structures, which may affect business development and long-term success.

Fourth, In the Asian region, there are relatively fewer professional managers. In many companies, business owners serve as the chairman of the board and are responsible for all strategic decisions. Due to the overlap of roles between

shareholders and management, there may be limited supervision and regulation of management. Firstly, business owners may prioritize their own interests over the overall interests of the company. Secondly, business owners may lack professional knowledge and experience, which may affect the company's operations and decision-making. Additionally, as business owners typically have control over the company, professional managers may be limited in their ability to utilize their expertise and skills.

Fifth, apart from the agency problem that is common in Anglo-American companies, Asian companies also face challenges arising from conflicts between major and minor shareholders. In many Asian countries, the majority of shares are often held by a few large shareholders, who may have significant control over the company's decision-making process. This concentration of power can lead to conflicts of interest between major and minor shareholders, as the former may prioritize their own interests over those of the latter.

Minority shareholders may feel that their rights and interests are not being adequately protected, as they may not have a significant say in the company's decision-making process. This can lead to a lack of trust in the company's management and a reluctance to invest in the company, which can ultimately harm the company's long-term prospects.

3.2 Causes of Differences

Based on empirical evidence, it is commonly believed in the United States

that diversification negatively impacts shareholder value. This implies that the costs of diversification usually outweigh the benefits, resulting in what is known as diversification discounts. However, research suggests that these discounts tend to be lower in environments with less developed markets, including financial markets. In low-income countries, there may even be a premium for corporate diversification, with no market discount observed (Fauver, Houston, & Naranjo, 2003; Hayward & Hambrick, 1997). There are various factors associated with capital markets that influence the benefits of diversification. One such factor is the presence of an internal capital market within a business group, which facilitates the transfer of resources between affiliated firms and provides funding to smaller entities that may face difficulties in accessing external financial markets. However, the advantages of diversification in emerging markets can also be attributed to factors unrelated to capital markets, such as labor market imperfections, weak contract enforcement, inadequate rule of law, and other institutional deficiencies. Diversification and expansion can address these institutional gaps and contribute to the overall welfare of their members. For instance, Huawei has established a training center and research institute that benefits the entire group. Additionally, diversified groups can compensate for the absence of institutions that support entrepreneurial processes, by providing an internal market for talent and a source of venture capital. These factors help explain why diversification and the prevalence of large companies are more pronounced in less developed countries in Asia compared to the United States.

The question arises as to why diversified entities in the United States tend to be organized as conglomerates, while in Asia, business groups are the prevailing

form of organization (Khanna & Yafeh, 2007). Conglomerates are distinct legal entities that operate multiple businesses across various industries without strong strategic or operational linkages. Their primary objective is to acquire companies in different sectors to diversify risk and prioritize financial performance and shareholder value. On the other hand, business groups consist of a collection of companies with a common owner or controlling entity. These groups have a centralized ownership or control structure, with a core company or family holding stakes in multiple affiliated companies. Business groups emphasize strategic and operational linkages, sharing resources, technology, and market access. They focus on long-term growth, synergies, and leveraging the collective strengths of the group. The preference for a group form over conglomerates in Asia may be attributed to legal considerations, lower contracting costs, and the potential for higher monopoly power in cases of vertical integration.

Ownership and control characteristics in business groups vary significantly worldwide. One common structure is the pyramidal group, where a single entity at the top of the pyramid holds ownership or control over a chain of subsidiary companies, each with their own set of subsidiaries. Control typically flows from the top entity downwards through different levels of subsidiaries. This hierarchical ownership arrangement allows the top entity to maintain control over the entire group with a relatively small ownership stake.

In emerging markets, pyramidal structures in business groups are often associated with concentrated ownership by a family or dominant individual at the top of the pyramid. This concentration of control can lead to potential conflicts of

interest between majority and minority shareholders. In some cases, these structures are used for tunneling, which involves the diversion of minority shareholders' wealth for the benefit of the controlling shareholders.

Studies by Bertrand, Mehta, and Mullainathan (2002) provide systematic evidence of tunneling practices in pyramidal Indian business groups. Similarly, research by Bae, Kang, and Kim (2002) discusses the expropriation of minority shareholders within South Korean business groups. Barontini and Caprio (2005) highlight the divergence between cash flow and control rights in family-dominated firms in Continental Europe, contrasting with the prevalence of pyramidal structures in South Korea and Thailand, where tunneling practices are observed. However, it is important to note that the presence of a pyramidal structure does not necessarily imply the exploitation of minority shareholders. Factors such as reputation, safeguards, and regulatory frameworks can play a significant role in mitigating the risks associated with pyramidal structures.

3.3 Divestiture under the Asian Corporate Governance

Asian companies face unique challenges in the divestiture process, given the different ownership structures and corporate controls in both the Anglo-American context and the Asian context.

Private Asian companies face some unique challenges in the divestiture process. In the case of large U.S. corporations, the decentralized ownership structure leads to the fact that management actually has control over the company, raising the issue of management agency. This problem occurs when management

puts its own interests ahead of shareholder interests, leading to inefficient use of resources and declining shareholder value. In Asia, the centralized ownership structures that are prevalent in many private companies present a unique set of challenges compared to the decentralized ownership structures in the United States. In these companies, the controlling shareholders hold a significant percentage of the shares, giving them de facto control and decision-making power. As a result, they have the ability to prioritize their own interests and exert control over the company's operations. One of the challenges posed by this centralized ownership structure is that controlling shareholders may be reluctant to divest inefficient business units. Divestiture typically involve the sale of underperforming or non-core assets, which can lead to a loss of control and influence among controlling shareholders. Even when a divestiture is in the best interest of the company and shareholders, they may resist it because it could weaken their control and reduce their ability to shape the direction of the company. For example, a family-owned conglomerate may have multiple subsidiaries in different industries. If one of the subsidiaries has been underperforming, a divestiture may be a logical step to improve the performance of the entire company. However, the controlling family may resist divestiture in order to maintain control of the entire conglomerate, even if it means sacrificing shareholder value. Their primary focus may be to protect the family's legacy and influence, rather than optimizing shareholder returns. In these cases, the motivation for the divestiture is usually not directly related to managing incentives or maximizing shareholder value. Conversely, controlling shareholders may prioritize maintaining control, retaining family influence, or protecting

personal interests. This can lead to inefficient resource allocation and hinder companies from adapting and thrives in dynamic market conditions.

State-owned enterprises in Asia also face different challenges than divestiture of British and American companies. One of the main challenges faced by SOEs in the divestiture process is political interference. SOEs are often influenced by political agendas, which can lead to delays or cancellations of divestiture plans. Political leaders may prioritize retaining jobs or maintaining control of strategic industries, even when divestiture are in the best interests of the company and shareholders. This can lead to a lack of urgency for SOEs to divest inefficient assets or non-core businesses, leading to inefficiencies and resistance to divestiture. In addition, SOEs may lack market discipline and incentives to incentivize private companies to divest inefficient assets or non-core businesses. Without market discipline, SOEs may face the same financial consequences or scrutiny as shareholders, which may make it more difficult to justify the need for divestiture to stakeholders and policymakers. Bureaucratic hurdles and a lack of transparency can also pose significant challenges in the SOE divestiture process. SOEs often have to deal with complex bureaucratic processes and decision-making structures, which can lead to slow decision-making and difficulties in executing divestiture plans. The involvement of multiple government agencies or ministries can further complicate the process and introduce additional challenges. Additionally, a lack of transparency can create uncertainty and cause concern to potential buyers, impacting the divestiture process. Finally, the divestiture of state-owned enterprises can have significant social and employment implications,

especially if it involves job losses or affects local communities. The government may be wary of divestiture that could lead to negative social or political consequences, potentially delaying or restricting the divestiture process. This can make it more difficult for SOEs to execute divestiture that are in the best interests of the company and shareholders.

3.4 Summary

The challenges associated with divestitures in Asia differ from those in the United States due to the underlying causes of companies becoming large in the first place. In the US, big company syndrome arises from a desire to diversify risk and prioritize financial performance and shareholder value. Conversely, in less developed Asian countries, companies expand in order to maintain a certain level of power and acquire various resources, such as capital and talent. State-owned companies in Asian countries also play a role in filling institutional gaps.

In order to effectively address the challenges arising from diversification, it is crucial to understand the factors that influence companies' decisions to divest and the underlying reasons for them to diversify and then divest.

4 Research Questions

Due to the different characteristics of Asian and Anglo-American companies, we believe that the motivation for divestiture will be different under different systems. This paper discusses and compares the divestiture motivations

under the two systems and the choice of divestiture methods for different types of firms in Asia through three different studies.

In the first study, we use data to explore the divestiture motivations of U.S. firms. Studying the motivations behind the spin-offs of U.S.-listed companies can provide valuable insights into the timing of spin-offs in China and even Asia. We used a comprehensive dataset covering the spin-offs of publicly traded companies in the U.S. from 2000 to 2022. Previous studies have explored various determinants of corporate spin-offs, such as firm size, industry characteristics, and financial performance (Jain et al., 2011; Feng et al., 2015; Boreiko and Murgia, 2016), but there are still many factors that influence spin-offs that have not yet been explored. This study provides a more comprehensive and systematic analysis of the factors influencing the spin-off decision and provides an empirical basis.

In the second study, we use three typical cases to demonstrate the specificity of Asian firms and the potential special divestiture motivations. We use the comparison between ECCOM and Maple to illustrate how divestiture management, the example of Cheung Kong to illustrate the motivation of corporate divestiture to manage risk, and the example of Alibaba to illustrate how divestiture can keep companies innovative and competitive. These examples illustrate the motivations for different types of companies to opt for divestiture.

In the third study, we analyse trends in the divestiture approach of different types of companies in Asia. The study has important implications for the mixed-ownership reform of state-owned enterprises and provides empirical evidence for policymakers in other Asian countries to make informed decisions. We collected

data on the divestiture of Asian high-tech companies with different ownership structures from 1992 to 2022. We also conducted a subsample analysis of the divestiture methods used by Chinese listed companies to provide further insights. While the previous literature has examined various divestiture methods and their applications, our paper provides a new perspective on how the listing status of the parent company (the degree of concentration of ownership) and the state-owned component affect the parent company's choice of divestiture method. Previous studies have often compared the application of certain two stripping methods, and empirical evidence is relatively lacking. This study focuses on firms' decision-making tendencies and the logic behind their divestiture approaches, and our empirical evidence is based on Asian firms, which has received little attention in the previous literature.

5 Study 1: Motivations for U.S. Corporate Divestiture

5.1 Theory and Hypotheses to Test the Factors Affecting Divestitures among US Listed Companies

Although a spin-off incurs no direct cash transaction, it is not completely costless. A spin-off involves creating new entities, making distribution plans of shares and restructuring of operations, which can be a disruptive process and distract management. Generally, the time cost to complete a corporate spin-off is at least six months (Aquila, 2015). The parent firm also faces high legal and accounting fees to meet the regulatory and compliance requirements. Additionally,

a spin-off sometimes constitutes a termination of employment, leading to employee compensation issues to be addressed (Lipton, 2022). However, despite these costs, spin-offs remain an important divestiture method for firms. A To understand its popularity, it's crucial to examine why firms choose spin-off strategies in the first place. In this section, we provide a comprehensive review of the current studies on the spin-off and develop several research hypotheses regarding the determinants of spin-off decision.

5.1.1 Firm Performance and the Decision to Spin Off

Economic performance as a determinant of spin-off is grounded in the literature of corporate finance and industrial organization (Harrigan, 1980; John et al., 1992; Berry, 2010). Firms may seek to spin off segments with poor performance to dispose of unwanted businesses or assets. According to Glover (2021), a low-growth business could drag down the performance of a more dynamic business, as well as generate negative publicity for the firm. Moreover, the parent firm's management may be concerned that liabilities associated with one business could be a source of risk threatening another healthier business. Berger and Ofek (1995) also suggest that diversification programs destroy firm value, and the loss of value is largely due to the negative synergies that originate from the low-growth business.

Krishnaswami and Subramaniam (1999) provide an explanation for spin-off from the perspective of information asymmetry. They argue that spin-offs reduce information asymmetry in the market, allowing investors to perceive the underlying value of the firm more clearly. Therefore, the spin-off of low-

performing businesses helps to increase the market value of firms with higher growth opportunities, particularly in cases where significant information asymmetry exists. In addition, Habib et al. (1997) argue that spin-offs improve the quality of the information managers and uninformed investors can infer from the prices of the firm's traded securities, therefore leading to an increase in the expected price of the firm's equity.

Drawing on the above arguments, we hypothesize that firms are more likely to choose spin-off when the parent firm exhibits good performance, and the subsidiary underperforms. We employ three measures to assess the firm performance: Tobin's Q (TOBQ), return on assets (ROA), and firm productivity (TFP), where the relative firm productivity is measured as the total factor productivity of the parent firm computed on the basis of the methodology in Faleye et al. (2006). Due to data availability, TOBQ and TFP are only computed for the parent firm, while ROA is computed for both the parent and the subsidiary.

Hypothesis 1a (H1a): The probability of spin-off increases with the performance of the parent firm and decreases with the performance of the subsidiary.

Maksimovic and Phillips (2001, 2002) propose an alternative neo-classical model of firm organization that sheds light on the relationship between firm performance and spin-off. Their model suggests that when a firm's productivity is low or declining within an integrated structure, it signals opportunities for enhancing efficiency through alternative organizational forms. According to their argument, positive demand shocks in industries alter the value of assets, causing

firms to transfer assets to more efficient business segments. Consequently, their model predicts that less productive firms tend to divest assets from their less productive divisions in response to positive demand shocks. Consistent with Maksimovic and Phillips (2002), we measure industry demand shock as the detrended value of the parent industry's real sales (DEM_SHOCK), which is expected to have a positive effect on the spin-off probability.

Hypothesis 1b (H1b): Firms are more likely to spin off when they face positive demand shock.

5.1.2 Incomplete Contracts and the Hold-up Problems

Hold-up problems happen when one party makes a sunk, relationship-specific investment and the other party is able to take advantage of that investment by bargaining for a better deal. Previous literature has suggested that diversification provides a solution to alleviate the holdup problem and allows firms to undertake relationship specific investments (Grossman and Hart, 1986; Hart and Moore, 1990). Specifically, through vertical integration, firms could reduce reliance on external parties and grant greater control over the entire supply chain. As a result, the decision to spin off is based on the trade-off between the potential efficiency gains achieved through vertical separation and the increase in contractual inefficiencies and hold-up problems that could occur when related parties separate. Therefore, we posit that if in an industry the need for investment in relationship-specific assets is high, the gains of lower contracting costs from vertical integration will also be significant, thereby leading to a lower probability of spin-off. Similarly, we anticipate that firms with a high level of vertical integration and a heavy reliance

on relationship-specific investments will also exhibit a lower propensity to spin off.

Hypothesis 2 (H2): Firms with a high extent of vertical relatedness and a substantial reliance on relationship-specific investment are less likely to spin off.

We employ both firm-level and industry-level measures to assess the extent of vertical relatedness. At the firm-level, we adopt the methodology from Fan and Lang (2000) to compute the extent of backward and forward vertical relatedness between the primary and the secondary segment of the firm (VERT_REL). A higher value of VERT_REL indicates a greater extent of vertical relatedness among the business segments within the same firm, leading to a lower likelihood of spin-off. The industry-level vertical relatedness is measured by the proportion of vertically integrated firms in the parent industry (VI_PROP). A higher proportion of vertically integrated firms within the parent industry implies an industry structure where firms heavily rely on investments in relationship-specific assets to secure a competitive advantage. Recent research has also suggested that the need for relationship-specific investments as well as the potential for expropriation and holdup problem is greater in R&D-intensive environments (Allen and Phillips, 2000; Fee, 2006). We therefore calculate the parent industry R&D intensity (IND_RDI) and expect it to have a negative impact on the probability of spin-off.

5.1.3 Management Efficiency

The agency problem is also a crucial factor in the spin-off decisions. Aron (1991) argues that when a firm has many divisions, the stock price of the firm may be influenced by other divisions within a firm, and therefore become a noisy signal for a division manager's performance. In such cases, relying on stock price as a

performance measure can be problematic, as it can lead to incorrect inferences about the division manager's performance. However, using alternative measures such as ROA can lead to agency costs, as division managers may have an incentive to focus on short-term profits rather than long-term growth. ROA measures the short-term profitability, and managers may choose to cut costs and defer investments to maximize profitability in the short term, even if it harms the long-term growth. Therefore, spin-offs offer a solution by providing a clearer signal of managerial productivity through the equity values of the individual firms being traded, and thus enable the firm to provide better incentives for firm management based on the stock price of the individual firms. Building upon these insights, we propose the following hypothesis:

Hypothesis 3a (H3a): The probability of spin-off increases with the firm size and the number of business segments.

Spin-offs could also improve the management efficiency through disciplining effects. Chemmanur and Yan (2004) develop a model of corporate control, where incumbent firm management not only obtains security benefits from the increase in equity value like other shareholders but also enjoys private benefits of control, which would be lost in the event of a takeover by another management team. Spin-offs allow passive investors to vote with a rival management team, and therefore discipline management by increasing the probability of a takeover, which could result in efficiency improvements in two ways. First, the increased probability of losing control motivates current management to work harder, leading to enhanced efficiency, improved operating performance, and stock performance

even without an actual takeover occurring. Second, if a takeover does occur after the spin-off, there may be an additional improvement in firm performance, due to the better ability of the new management team. Their paper suggests an empirical implication that when the extent of takeover pressure is not strong enough to properly discipline the current management team, it will choose to restructure the firm through a spin-off.

Building upon the model by Chemmanur and Yan (2004), Feng et al. (2015) propose an incentive alignment hypothesis. When managers are properly given equity incentives, their long-term interests align with shareholders. Consequently, managers of parent firms should be motivated to make spin-off decisions whenever such decisions are expected to benefit shareholders in the long run. A properly incentivized CEO is motivated to make restructuring decisions to create value for shareholders. O Moreover, once the spin-off decision is made, CEOs are more likely to effectively manage the restructuring process and achieve superior performance post spin-off. Therefore, we posit that firms with managers with strong incentives are more likely to spin off.

Hypothesis 3b (H3b): The probability of spin-off increases when the takeover threat is low, and the management team is better incentivized.

To test this hypothesis, we utilize the takeover index (TIND) developed by Cain et al. (2017) as a measure of takeover threat. The index reflects the probability of a takeover, with a higher value of TIND indicating a lower level of protection against the takeover. To measure the alignment of interests between CEOs and shareholders, we use the pay-performance sensitivity (PPS) proposed by Hall and

Liebman (1998), which is defined as the elasticity of the CEO's equity portfolio value in response to the change in firm's market value. A higher PPS indicates a stronger incentive for the CEO to improve the organization's performance, as their compensation is directly tied to it.

5.1.4 Financial Constraints

The main premise behind the financing hypothesis is that firms divest assets when it provides them with the most cost-effective source of funds (John and Ofek, 1995; Lang et al., 1995). A vertically integrated firm may choose to divest if it is capital-constrained or if it helps to take advantage of the favourable industry financing conditions.

Ahn and Denis (2004) suggest that spin-offs improve the internal capital market. They show that there is inefficient allocation of internal capital prior to spin-offs but it can be significantly mitigated following spin-offs. Similarly, Burch and Nanda (2003) argue that diversification leads to disparities in investment opportunities, which can diminish overall firm value. These findings are aligned with the discussions of Rajan et al. (2000) and Scharfstein and Stein (2000), who argue that conglomerates may experience misallocation of internal funding across subsidiaries due to underperforming divisions extracting profits from others.

To examine whether financial conditions can affect firms' spin-off decisions, we construct two measures based on the following literature. The first variable, NEED_FOR_FUNDS, is from Gomes and Phillips (2008) and Maksimovic and Phillips (2008), where they measure firm's need for external funds as the difference

between the firm's capital expenditures and the sum of its operating income before depreciation and change in working capital. The second variable, IND_CAPFLOW, is the industry-level financial condition, measured as the ratio of the total debt and equity issuance in the parent industry to industry market capitalization. We expect firms are more likely to spin off when they are financially constrained and when their external financial market conditions improve.

Hypothesis 4 (H4): Firms are more likely to spin off when they are financially constrained and when their external financial market conditions improve.

5.1.5 Regulatory Requirements

The regulatory environment also plays a significant role in influencing firms' decisions to spin off. A firm may decide to spin off a business in order to comply with regulatory requirements. Specifically, spin-offs can be motivated, or partly motivated, by the need to avoid antitrust liability. strategy employed by firms to circumvent antitrust concerns is to create fictitious competitors through the spin-off process. In this scenario, a parent firm, typically holding a dominant market position, may select like-kind assets to break off in an effort to add fictitious competitors to markets. Additionally, the parent firm might incorporate terms into the spin-off agreements that are inherently anticompetitive. However, due to the fact that the parent and the spun-off firms are still in a parent-subsidiary relationship when negotiated, under current antitrust doctrine, the firm could utilize its pre-spin parent-subsidiary status to shield such agreements from regulatory scrutiny.

Furthermore, even after the spin-off agreements are executed and shares have been distributed, there remains a possibility for the parent firm to engage in collusion, disguising explicit collusion as tacit collusion. Therefore, based on the arguments presented above, we propose the following hypothesis:

Hypothesis 5 (H5): Firms with a larger market share are more likely to spin off in a more concentrated market.

5.2 Data Sources and Sample Selection

Our sample of spin-offs are obtained from the Securities Data Company (SDC) Platinum Mergers and Acquisitions database provided by Refinitiv. We use the subsample of spin-offs of public-listed firms in the US over the period 2000-2022. Additionally, we exclude observations where the parent firms of the spun-off firms are limited partnerships, financial firms, Real Estate Investment Trusts (REITs), or joint ventures. To ensure that the analysis is not contaminated by serial spin-offs, we also exclude a spin-off if the same parent firm has engaged in multiple spin-offs within a three-year window of the event.

Figure 5-1： The Number of Spin-off Events by Year

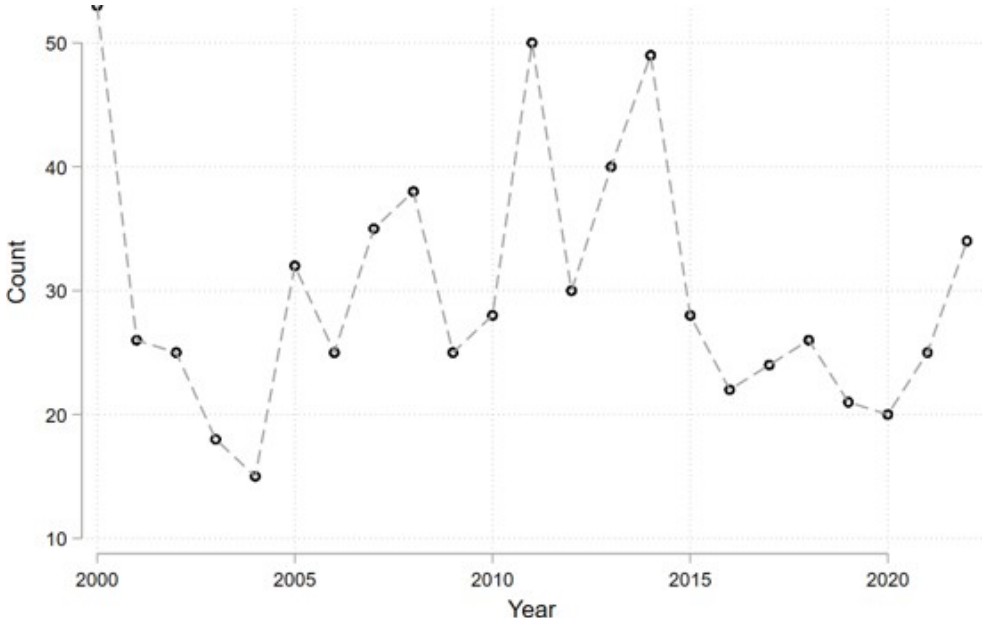
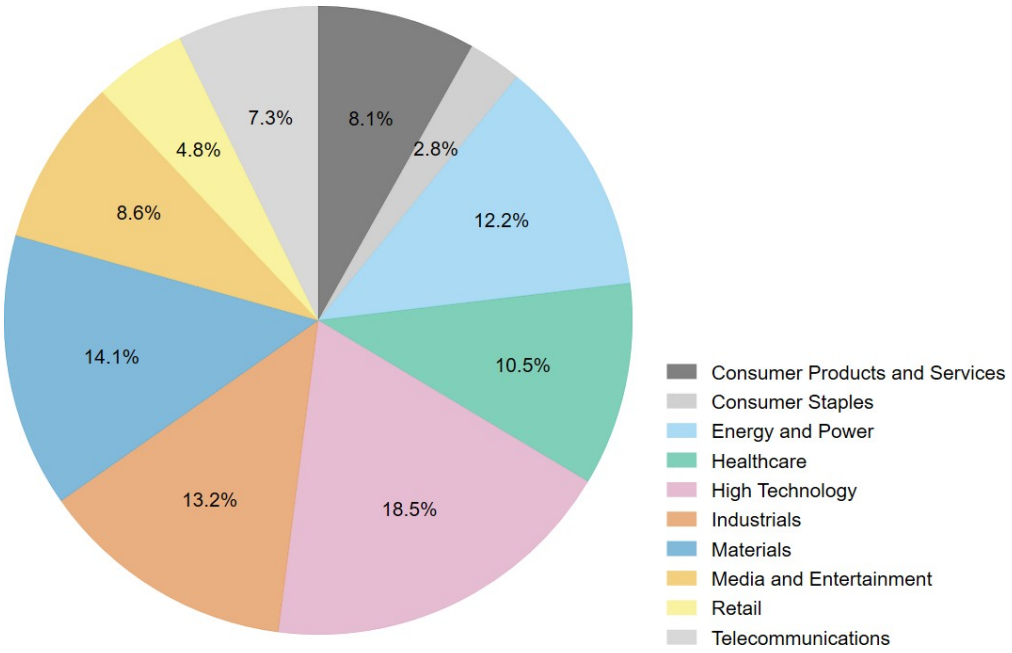


Figure 5-1 plots the number of spin-off events by year in our sample over time. The data indicates a relatively balanced spread of spin-offs across the years, with a slight concentration observed in the early 2010s. We also examine the industry distribution of spin-offs in our sample and find no significant clustering in this regard. Figure 5-2 presents the industry breakdown of spin-off cases, with high technology comprising the largest share at 18.5%, which is followed by material production at 14.1% and industrial firms at 13.2%.

Figure 5-2: The Industry Distribution of Spin-offs



5.3 Construction of Control Samples

To examine decision making behind spin-offs, we compare our sample of spin-off firms with a group of control firms that do not engage in corporate spin-offs. We construct our control sample using US public firms from Compustat that share the same 4-digit SIC code as the spin-off firms. Compustat is a product published by S&P Global Market Intelligence that provides a database of financial, statistical, and market information on active and inactive global public firms. One crucial advantage of Compustat is that it provides detailed fundamental and financial information for all business segments within a firm, based on the 10-K

segment information footnote, which is particularly relevant for our study of spin-offs. To ensure comparability, we further eliminate financial firms (SIC code starting with six), observations with missing assets. sales and SIC code, and firms whose reported sum of segment sales is less than 5% of the total firm sales.

We identify three different control samples for examining robustness and consistency of our results. We construct Control Sample 1 by using our universe of all firm-years with non-missing business segment information. Since spin-off firms involve at least two segments by definition, we also retain only multi-segment firms in this control sample. These sample selection criteria yield a sample of 13743 observations. Control Sample 1 serves as the most general control sample, to which we add further criteria to obtain the following two additional control samples. In Control Sample 2 we delete observations of which the number of segments changed relative to the number reported by the same firm in the previous year so as to eliminate the effects of any other forms of divestitures or M&A. As a result, Control Sample 2 comprises 10,457 observations. For Control Sample 3, we further exclude firms with segments too small to spin off by including only firm-years where the firms have at least two segments whose sales shares are greater than 10%. We obtain 9,218 observations for this control sample.

5.4 Variable Definition

We will discuss the definition and acquisition of our independent variables in this section. To test the performance hypothesis, we utilize three variables: Tobin's Q (TOBQ), return on assets (ROA), and firm productivity (TFP) as

measures of firm performance. Both TOBQ and ROA can be directly obtained from the Compustat database. TFP is calculated using the methodology outlined in Faleye et al. (2006). We perform a regression of the logarithm of firm sales on the logarithm of the number of employees and the logarithm of net property, plant, and equipment for each four-digit SIC code. TFP for each firm-year is measured as the residual from this regression. Additionally, the performance hypothesis suggests a relationship between the demand shock (DEM_SHOCK) and the decision to spin off. To calculate DEM_SHOCK, we detrend firm sales by regressing the sales in each industry on a yearly time trend. The difference between the actual sales and the predicted values from this regression serves as a measure of the industry shock.

We include three variables in our regression to test the incomplete contract theory. The first variable is the vertical relatedness within a firm (VERT_REL). Following Fan and Lang (2000), we utilize the Use Table of the benchmark input–output accounts published by the Bureau of Economic Analysis to calculate the input requirement coefficients for each two industries. Specifically, the coefficient is defined as the amount of output from one industry that is used as an input to produce one unit value of product in another industry. For each firm, we calculate VERT_REL as the average of the two input requirement coefficients between the industries of their two largest business segments. The second variable is the proportion of vertically integrated firms in the parent industry (VI_PROP). We follow Jain et al. (2011) to define a firm as vertically integrated if its VERT_REL is 1% or more, and then calculate VI_PROP by dividing the number of vertically integrated firms by the total number of public firms in each industry. The third

variable, IND_RDI, represents industry research and development (R&D) intensity. It is calculated by averaging the R&D intensity obtained from Compustat for all firms in each industry.

The test of management inefficiency hypothesis utilizes several variables. These include the number of segments (NUM_SEG) and the logarithm of employees (LOG_EMP), which is available from the data. We also incorporate the takeover index (TIND), developed by Cain et al. (2017), and can be obtained on the authors' website. Pay-performance sensitivity (PPS) is calculated using the Execucomp database, which provides executive compensation information collected directly from each company's annual proxy. We calculate PPS as the elasticity of the CEO's equity portfolio value in response to changes in the firm's market value, following the methodology of Hall and Liebman (1998). Additionally, we define two variables to see how CEO tenure affects spin-off decision: the duration that the current CEO has served (CEO_TENURE) and a dummy variable indicating whether there has been a change in the CEO (CEO_CHANGE).

We use two measures for a firm's financial conditions. The first variable, NEED_FOR_FUNDS, quantifies the internal funding deficit of the parent company. Following the approach of Gomes and Phillips (2008), we calculate this variable by subtracting capital expenditure from operating income before depreciation and adding the change in working capital. The second variable, IND_CAPFLOW, is computed as the ratio of total debt and equity issuances to the market capitalization of each industry.

Finally, to test the regulatory requirements hypothesis, we calculate the

Table 5-1: Summary Statistics

	Spin-off			Control		
	mean	sd	p50	mean	sd	p50
DEM_SHOCK	2773.70	15667.96	91.62	1062.97	8741.75	-22.74
TFP_PAR	0.08	0.57	0.05	-0.02	0.66	-0.01
TOBQ_PAR	1.70	1.31	1.30	1.80	4.07	1.33
ROA_PAR	0.11	0.13	0.10	0.06	0.82	0.10
ROA_SUB	-0.00	0.64	0.07	0.01	10.81	0.08
VERT_REL	0.01	0.06	0.00	0.01	0.06	0.00
VI_PROP	0.04	0.07	0.00	0.04	0.07	0.00
IND_RDI	2.09	6.52	0.13	3.17	23.00	0.05
NUM_SEG	3.38	1.50	3.00	2.88	1.15	3.00
LOG_EMP	2.99	1.72	3.24	1.11	2.20	1.23
TIND	0.22	0.13	0.22	0.15	0.10	0.13
CEO_CHANGE	0.15	0.36	0.00	0.07	0.25	0.00
CEO_TENURE	4.62	4.67	3.00	7.27	7.70	5.00
PPS	0.30	0.77	0.30	0.39	0.71	0.35
IND_CAPFLOW	2.32	3.21	0.14	0.55	7.63	0.13
NEED_FOR_FUND	-663.56	2898.50	-48.96	-3128.51	5997.28	-647.30
HHI	0.17	0.16	0.13	0.19	0.17	0.14
MKT_SHARE	0.15	0.19	0.07	0.08	0.15	0.01

standard Herfindahl-Hirschman Index (HHI) for each industry, which measures market concentration and competitiveness. We also calculate the market share of each parent firm (MKT_SHARE) to explore whether dominant firms are more likely to spin off.

Table 5-1 presents the summary statistics of the independent variables for both spin-off firms and the control sample.

55 Empirical Results

In this section, we conduct an empirical analysis of spin-off decisions to gain insights into the determinants of firms' strategies. We employ the probit model to estimate the independent variables discussed in the previous sections, focusing on their influence on the probability of spin-offs. The dependent variable is a binary indicator that takes the value of one if a firm chooses to spin off in a given year. All independent variables are lagged by one year relative to the dependent variable. We also include industry and year dummy to control the year and industry fixed effects. In order to ensure the robustness of our findings the probit model is estimated for all the three control samples separately. Additionally, apart from reporting the estimated coefficients, we provide the magnitude of effects for each variable in the regression tables. Specifically, we compute the change in marginal probability as each independent variable increases by one standard deviation from its mean, while keeping all other variables at their average levels. For explanatory variables represented as dummy variables, we assess their economic significance by changing their values from zero to one.

We begin our empirical investigation by analyzing the performance hypothesis. Table 5-2 displays the results. As shown in the first row, the marginal effect of DEM_SHOCK is positive and consistent in magnitude and direction across three different control samples. These findings indicate that firms are more likely to engage in spin-offs in response to positive demand shocks, which aligns

with the prediction put forth by Maksimovic and Phillips (2002). However, it is important to note that the estimated coefficients are statistically insignificant, suggesting that the effects could be close to zero. One plausible explanation for this result is that integrated firms are more inclined to prioritize serving their parent company over other potential buyers. Consequently, the impact of demand shocks on the performance of vertically integrated firms might be limited, thereby having minimal influence on the decision to spin off.

Moreover, for all three measures of parent firm performance (TFP_PAR, TOBQ_PAR, and ROA_PAR), we observe significant and positive coefficients. These results are consistent with the theory proposed by Krishnaswami and Subramaniam (1999), suggesting that firms are more likely to pursue spin-offs when they possess high growth potential but their stock prices are undervalued due to information asymmetry. Additionally, regarding the measure of subsidiary performance (ROA_SUB), we find significant and negative results in Control Samples 1 and 3. In Control Sample 2, although the coefficient is statistically insignificant, the direction and magnitude of the coefficient remain robust. These findings indicate that firms tend to spin off less productive segments to mitigate negative synergies and improve overall profitability.

The magnitude of the effects of each determinant is reported in Columns 2, 4, and 6 for the three control groups, respectively. As reported in Column 2, a one standard deviation increase in DEM_SHOCK leads to a minimal 0.06% increase in the probability of spin-off, confirming that demand shocks may not significantly impact spin-off decisions. Comparing the effect magnitudes of the three parent

performance measures (TFP_PAR, TOBQ_PAR, and ROA_PAR), we find that ROA_PAR has the most substantial effect on the probability of spin-off, with a one standard deviation increase corresponding to a 1.1% increase in the probability of spin-off. In contrast, TFP_PAR and TOBQ_PAR have relatively smaller effects, with a one standard deviation increase resulting in a 0.14% and 0.17% increase in the probability of spin-off, respectively. The difference in effect magnitudes among the three measures aligns with the asymmetric information theory, where undervalued firms with high ROA are more inclined to pursue spin-offs as it is more likely to improve their stock prices. Another explanation could be the correlation among the three measures, with the estimated effects of the other two variables being absorbed by ROA_PAR. Finally, we examine the effect magnitude of ROA_SUB, which is relatively less influential, as a one standard deviation decrease in ROA_SUB corresponds to a 0.18% increase in the probability of spin-off. While firms do exhibit a tendency to spin off low-performing segments, it is not the primary determinant compared to other factors.

Table 5-2: Probit Regressions: Performance Hypothesis

	Sample 1		Sample 2		Sample 3	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
DEM_SHOCK	0.00870	7.69e-05	0.0288	0.000331	-0.0189	-0.000207
	(0.161)		(0.175)		(0.195)	
TFP_PAR	0.0823**	0.00171	0.0782**	0.00211	0.0506*	0.00130
	(0.0324)		(0.0303)		(0.0313)	
TOBQ_PAR	0.0109**	0.00139	0.00982**	0.00162	0.0118**	0.00187
	(0.00445)		(0.00420)		(0.00458)	
ROA_PAR	0.425**	0.0110	0.458**	0.0153	0.566***	0.0181
	(0.191)		(0.184)		(0.207)	
ROA_SUB	-0.00542*	-0.00183	-0.00474	-0.00208	-0.00451*	-0.00189
	(0.00334)		(0.00579)		(0.00234)	
Observations	6,572	6,572	4,830	4,830	3,973	3,973

Note. Robust standard errors in parentheses

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

The incomplete contract hypothesis suggests that firms with a high degree of vertical relatedness and a significant reliance on relationship-specific investments are less likely to undergo spin-offs. To test this hypothesis, we

incorporated measures of vertical relatedness (VERT_REL), relationship-specific investment proportion (VI_PROP), and industry-level relationship-specific investment (IND_RDI) into our regression analysis. The results are presented in Table 5-3: Probit Regressions: Incomplete Contract Hypothesis.

In column 1 of Table 5-3, we observe that the coefficient of VERT_REL is -0.229, indicating a negative relationship between vertical relatedness and the likelihood of spin-offs. Similarly, the coefficient of VI_PROP is -0.637, suggesting that firms operating in industries with a higher proportion of vertical integrated firms are less likely to spin off. Both coefficients are statistically significant at the 10% level. These findings support the incomplete contract hypothesis, indicating that higher levels of VERT_REL and VI_PROP are associated with a reduced likelihood of spin-offs.

To ensure robustness, we retested the regression using different control groups, namely Control Sample 2 and Control Sample 3. The results, presented in columns 3–6 of Table 5-3, exhibit consistent patterns. The coefficients, including the sign, magnitude, and statistical significance, remain qualitatively similar across all control groups. Hence, we conclude that firms are more inclined to choose diversification over spin-offs when the hold-up problem is relevant.

Furthermore, we provide the estimated coefficient of IND_RDI on the probability of spin-offs. Although consistent negative coefficients are found in all regressions, only the coefficient obtained from Control Group 1 (-0.00261) is statistically significant. In contrast, the coefficients from Control Group 2 and Control Group 3 have p-values around 0.2, indicating insignificance. IND_RDI

represents the R&D intensity of each industry and serves as a proxy for the importance of relationship-specific assets. The insignificant results may be attributed to the "bad proxy problem" discussed in Allen and Phillips (2000). Despite R&D activities being more closely associated with relationship-specific investments, a significant portion of R&D is conducted within parent firm-owned labs, which reduces the susceptibility to the hold-up problem. Another possible explanation is that since IND_RDI is measured at the industry level, its impact on firm-level spin-off decisions is less likely. Nonetheless, the negative results align with the theory that firms with greater investments in relationship-specific assets are less inclined to spin off due to the potential for expropriation and hold-up problems.

Additionally, we examine the magnitude of the effects of these variables. As shown in column 2, VERT_REL has the most substantial effect on the probability of spin-offs. A one standard deviation increase in VERT_REL leads to a 0.38% decrease in the likelihood of spin-offs. In comparison, a one standard deviation increase in VI_PROP and IND_RDI results in only a 0.13% and 0.16% decrease in the probability of spin-offs, respectively. This pattern persists even when running the regression on Control Group 2 and Control Group 3. The results indicate that individual-level variables, such as VERT_REL, possess greater predictive power than industry-level variables like VI_PROP and IND_RDI.

Table 5-3: Probit Regressions: Incomplete Contract Hypothesis

	Sample 1		Sample 2		Sample 3	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
VERT_REL	-0.229*	-0.00384	-0.241*	-0.00516	-0.239**	-0.00387
	(0.135)		(0.159)		(0.104)	
VI_PROP	-0.637*	-0.00130	-0.698*	-0.00182	-0.849*	-0.00213
	(0.358)		(0.374)		(0.456)	
IND_RDI	-0.00261*	-0.00164	-0.00439	-0.00351	-0.00129	-0.00196
	(0.00155)		(0.00401)		(0.00098)	
Observations	8,656	8,656	6,477	6,477	5,318	5,318

Note. Robust standard errors in parentheses

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

The management inefficiency hypothesis posits that firms with excessive segments are more inclined to engage in spin-offs. This is driven by the desire to provide a clearer signal of management efficiency through the stock price. Additionally, the probability of spin-offs increases when the takeover threat is low and the management team is better incentivized. To test this hypothesis, we include several measures in our regression analysis, such as firm size (NUM_SEG and LOG_EMP), takeover threat (TIND), management incentive (PPS), CEO tenure (CEO_TENURE), and a dummy variable indicating CEO change

(CEO_CHANGE). The results are presented in Table 5-4.

In column 1 of Table 5-4, we observe that the coefficient of NUM_SEG is 0.0402, but it is statistically insignificant. However, after excluding observations with a changing number of segments, as shown in columns 3 and 5 where the regression is run using Control Sample 2 and Control Sample 3, the coefficient becomes significant at least at the 5% level. This suggests that firms may choose alternative forms of divestiture when they have redundant segments instead of opting for spin-offs. Furthermore, Table 5-4 reveals a positive correlation between the probability of spin-offs and firm size, as indicated by the coefficient of LOG_EMP. The coefficient values are 0.317 (Control Sample 1), 0.339 (Control Sample 2), and 0.346 (Control Sample 3), all statistically significant at the 1% level. These results remain robust and support the management inefficiency theory, which posits that firms with too many segments experience noisy stock prices that reflect the performance of multiple segments, making it difficult to measure the productivity of individual segment managers. Hence, firms resort to spin-offs to achieve a clearer stock price signal.

Furthermore, we find that firms with higher PPS are more likely to engage in spin-offs. PPS measures the elasticity of CEO compensation to the firm's market value. A higher PPS implies that CEO compensation increases as the firm's performance improves, indicating stronger incentives for the CEO to enhance firm performance. The consistent positive coefficients of PPS on the probability of spin-offs are 0.374 (Control Sample 1), 0.311 (Control Sample 2), and 0.227 (Control Sample 3). These results align with the findings of Feng et al. (2015), suggesting

that regardless of the decision process, the CEO serves as the final gatekeeper of restructuring decisions and is responsible for their execution and implementation. Therefore, a properly incentivized CEO is more motivated to make restructuring decisions, such as spin-offs, to create value for shareholders.

However, we do not find evidence supporting the notion that firms facing lower takeover threats are more likely to engage in spin-offs. TIND, a measure developed by Cain et al. (2017), represents the level of protection against takeovers, with higher TIND indicating a lower level of protection. In column 1 and column 3, we observe a negative correlation between TIND and spin-offs, while column 5 shows a positive correlation. However, all the estimated coefficients are statistically insignificant, indicating that we cannot rule out the possibility that TIND has no effect on spin-offs. This finding can be explained by the following arguments: First, although firms are theoretically more likely to spin off when the takeover threat is insufficient to discipline management, firms may opt for spin-offs even when facing high takeover threats due to the heightened discipline effects. Another reason is that firms use spin-offs as a strategic maneuver to counter takeovers when facing a high takeover threat. As discussed in Gibbs (1993), firms choose to spin off favorable segments to diminish the takeover attractiveness for rivals. Additionally, firms are compelled to structure and improve performance to decrease the likelihood of being acquired by more competitive rivals.

Next, we explore the effects of CEO tenure on the probability of spin-offs. In column 1 of Table 5-4, the coefficient of CEO_TENURE is 0.0756, while the coefficient of CEO_CHANGE is -0.0301. These findings indicate that firms with

new CEOs or CEOs with shorter tenures are more likely to engage in spin-offs. These results are consistent across all three control samples. Similar findings are reported by Boreiko and Murgia (2016), who observe an increased likelihood of spin-offs following CEO changes and the announcement of new compensation plans. Our results support the idea that CEOs with longer tenures possess a strong understanding of the company's operations and competitive landscape and have developed robust relationships with the board of directors and shareholders. In contrast, new CEOs may have different strategic goals and a greater willingness to take risks, leading to an increased propensity for spin-offs.

Furthermore, we examine the magnitude of the effects of these variables. We find that LOG_EMP has the most substantial effect on the probability of spin-offs, with a one standard deviation increase in LOG_EMP leading to a 2.9% decrease in the likelihood of spin-offs. This effect is relatively large, suggesting that firm size encompasses other factors, such as market share, that may influence the decision to spin off in compliance with antitrust regulations. We also observe significant effects of CEO_TENURE and PPS, as shown in column 2. A one standard deviation changes in CEO_TENURE and PPS both increases the probability of spin-offs by approximately 1%. These results highlight the significance of CEO management efficiency as a determinant in explaining firm spin-off decisions.

Table 5-4: Probit Regressions: Management Efficiency Hypothesis

	Sample 1		Sample 2		Sample 3	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
NUM_SEG	0.0402	0.00192	0.138**	0.00821	0.0857***	0.00482
	(0.0270)		(0.0669)		(0.0301)	
LOG_EMP	0.317***	0.0288	0.339***	0.0384	0.346***	0.0370
	(0.0649)		(0.0688)		(0.0743)	
TIND	-0.852	-0.00352	-0.814	-0.00419	0.280	0.00136
	(0.959)		(1.083)		(1.114)	
CEO_CHANGE	0.0765	0.000802	0.145	0.00190	0.103	0.00127
	(0.245)		(0.273)		(0.288)	
CEO_TENURE	-0.0301**	-0.00950	-0.0253*	-0.00996	-0.0183	-0.00683
	(0.0130)		(0.0136)		(0.0120)	
PPS	0.374***	0.00909	0.311**	0.01130	0.227**	0.00777
	(0.122)		(0.142)		(0.098)	
Observations	1,725	1,725	1,252	1,252	943	943

Note. Robust standard errors in parentheses

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

In Table 5-5, we investigate the financial constraint hypothesis. As

mentioned in the previous section, we employ two variables, IND_CAPFLOW and NEED_FOR_FUNDS, to measure the firm's financial conditions. IND_CAPFLOW captures the financial conditions at the industry level, while NEED_FOR_FUNDS represents the shortfall in firm financial resources, calculated as the difference between the firm's capital expenditures and its operating income.

In column 1, we observe that the coefficient of IND_CAPFLOW is 0.00413, while the coefficient of NEED_FOR_FUNDS is 0.00003. Higher values of IND_CAPFLOW and NEED_FOR_FUNDS indicate better external financial conditions for firms and greater reliance on the financial market to obtain funds. Our results indicate that firms facing more favorable external financial conditions and financial constraints are more likely to engage in spin-offs. This finding aligns with the financial constraint hypothesis, which suggests that divestiture is driven by internal market financial inefficiency. Firms are more inclined to spin off when they face financial constraints but experience improved external financial market conditions. Regarding the significance of our results, the coefficient of NEED_FOR_FUNDS is significant at the 1% level, while the coefficient of IND_CAPFLOW is statistically insignificant. However, the positive effect of IND_CAPFLOW on the probability of spin-offs remains consistent across all three control samples.

The magnitude of these variables is reported in columns 2, 4, and 6. Consistent with the significance levels, we find that IND_CAPFLOW does not have a substantial effect on the probability of spin-offs. A one standard deviation

increase in IND_CAPFLOW only leads to a mere 0.1% increase in the likelihood of spin-offs. On the other hand, NEED_FOR_FUNDS exhibits a stronger effect, with a one standard deviation increase in NEED_FOR_FUNDS resulting in approximately a 0.2% increase in the probability of spin-offs, as reported in columns 2 and 4. This effect magnifies to 0.46% in column 6. Overall, our results suggest that the financial constraint hypothesis is an important factor in explaining spin-offs, but it is not the primary determinant.

Table 5-5: Probit Regressions: Financial Constraints Hypothesis

	Sample 1		Sample 2		Sample 3	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
IND_CAPFLOW	0.00413	0.00110	0.00341	0.00115	0.00350	0.00112
	(0.00543)		(0.00581)		(0.00584)	
NEED_FOR_FUNDS	2.86e-05***	0.00230	2.70e-05***	0.00277	4.79e-05***	0.00462
	(7.08e-06)		(7.25e-06)		(8.57e-06)	
Observations	9,589	9,589	7,202	7,202	6,099	6,099

Note. Robust standard errors in parentheses

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

Finally, we examine the regulatory requirements hypothesis in Table 5-6. Our results reveal highly significant findings at the 1% level for both the Herfindahl-Hirschman Index (HHI) and market share (MKT_SHARE) in relation to the probability of spin-off. The magnitude and significance of the estimated

coefficients remain robust across different control sample selections. The positive signs in our results indicate that firms with larger market shares opt to engage in spin-offs when operating in more concentrated markets. These findings align with the regulatory requirements hypothesis, which suggests that firms divest their segments to comply with antitrust regulations.

However, it is crucial to acknowledge that such spin-offs can potentially have anti-competitive effects. Firms may strategically spin off fictitious competitors to create the illusion of increased competition and reduced market power. Despite this concern, our findings consistently demonstrate the significance of the regulatory requirements hypothesis as a determinant of spin-off decisions. This is further supported by examining the effect magnitudes of the variables in question.

We find that a one standard deviation increase in both the HHI and MKT_SHARE leads to an increase in the probability of spin-off by approximately 0.6% to 0.9%, depending on the control sample used for estimation. These effect magnitudes are relatively high compared to most variables examined in the previous tables. It underscores the substantial impact that regulatory requirements, as measured by market concentration and market share, have on the likelihood of spin-offs.

Table 5-6: Probit Regressions: Regulatory Requirements Hypothesis

	Sample 1		Sample 2		Sample 3	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
HHI	0.0416***	0.00668	0.0465***	0.00945	0.0429***	0.00822
	(0.00824)		(0.00901)		(0.00978)	
MKT_SHARE	0.0378***	0.00656	0.0434***	0.00952	0.0451***	0.00886
	(0.00565)		(0.00639)		(0.00729)	
Observations	9,645	9,645	7,240	7,240	6,121	6,121

Note. Robust standard errors in parentheses

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

5.6 Conclusion

In this section, we provide a comprehensive analysis of the factors that influence the decision to spin off. By leveraging detailed data from Compustat and identifying three different control samples, we improved our understanding of the complex dynamics and considerations in the spin-off process. Our empirical results suggest that multiple factors play an important role in deciding whether to proceed with a spin-off. We tested five hypotheses related to the split decision. First, we looked at performance assumptions and found that companies were more likely to spin off in response to a positive demand shock. However, the effect was not

statistically significant, suggesting a limited effect. We also explored the impact of parent and subsidiary performance on spin-offs and found that high growth potential and undervalued stock prices have a positive impact on the probability of spin-offs. We also found that companies tend to divest less productive departments to improve overall profitability. Next, we examine the incomplete contract hypothesis and confirm that a higher vertical correlation and reliance on relationship-specific investments reduce the likelihood of a spin-off. In addition, we tested management efficiency assumptions and observed that companies with too many business units and high share price volatility were more inclined to spin-offs. Appropriate CEO incentives and shorter CEO tenures are also associated with a higher probability of a spin-off. In addition, we examine financial constraint assumptions and find that companies facing financial constraints and improved external financial conditions are more likely to undergo divestitures. Finally, we found evidence that supports the assumption of regulatory requirements that companies may spin off business units in order to comply with regulatory requirements. Our research contributes to the existing literature on corporate spin-offs by providing a more systematic study of the factors influencing divestiture decisions. Our findings have important implications for managers considering carve-outs as a method of divestiture. By understanding the factors influencing this decision, managers can make more informed decisions about whether or not to proceed with a divestiture.

While our research provides valuable insights into the determinants of divestiture decisions, there are some limitations that need to be addressed in future

research. First, our analysis is limited to companies based in the United States and may not be generalizable to other countries. Second, our research focuses on public companies and may not apply to privately held companies. Finally, our analysis is based on a cross-sectional analysis, which may have endogenetic problems. In conclusion, our research provides important insights into the determinants of divestiture decisions. By considering a wide range of variables and their impact on that decision, we increase our understanding of this complex process. Our findings have important implications for managers considering carvestitures as a divestiture method and provide direction for future research.

6 Study 2: Motivations for Chinese Divestiture

In Asia, private companies often have concentrated ownership of shares, and the controlling shareholder is usually the de facto controller of these companies. As a result, even if the company is less efficient, they may be reluctant to divest because the divestiture may reduce their control and influence over the company. The motivation for divestiture is often not related to management incentives, but rather to other factors such as risk diversification.

State-owned enterprises are governed by the principle of public ownership, and nominal ownership belongs to all the people, but individuals have no actual rights or control over state-owned enterprises. The government is the true owner of these enterprises, but is not directly involved in their operations. Instead, the designated manager acts as the controller and operator of the SOE. There are several key reasons why SOEs may choose to divest. First, divestiture can solve the

efficiency problem. Managers of state-owned enterprises receive salaries according to the remuneration standards set by the government. While incentive schemes such as bonuses may exist, the correlation between compensation standards and operating performance is generally low. Prior to the reform and opening up in 1978, China had a planned economy, in which state-owned enterprises (SOEs) played an important role, accounting for more than 70% of GDP at that time. However, at that time, the managers of state-owned enterprises did not have much autonomy. The state determines the hiring, investment, production planning, input, and sales of SOEs, and the motivation of the SOE management is very low. In order to increase the enthusiasm of state-owned enterprises, the state implemented the "profit retention system" (1987-1993) and the "contract responsibility system" (1987-1993) in the early stage of reform. These two incentives have increased the motivation of SOE management and have been successful in small-scale experiments, but problems have arisen when the mechanism has been extended to the whole country. One of the most striking problems is that businesses "have no owners". At that time, SOEs lacked oversight from shareholders' meetings and boards of directors, and under the "profit retention system" and "contract accountability" system, management may have manipulated profit distribution, abused power, or violated the rules to gain personal gain rather than create value for the company and shareholders. Therefore, the direction of SOE reform has shifted from these two incentive systems to "grasping the big and letting go of the small" ownership reform, that is, privatizing the small SOEs and introducing a modern corporate system for the larger SOEs, including the establishment of a

board of directors, a board of supervisors and a management team. Listed companies were considered to be the most advanced form of corporate governance, so listing efficient state-owned enterprises was the guiding strategy at the time.

Second, divestiture can address efficiency issues by bringing in other forms of capital. The report of the 19th National Congress of the Communist Party of China in 2018 proposed the reform of mixed ownership, the core of which is marketization, and fundamentally introduces other ownership capital to participate in the reform of the property rights system of state-owned enterprises, including the overall listing, private enterprise equity participation and management shareholding.

Third, divestitures can address funding needs. Two Chinese stock exchanges, established in 1990 and 1991 to provide refinancing options for state-owned enterprises (SOEs) facing a shortage of funds. State-owned banks could not adequately support the transition from a planned to a market economy. As a result, two-thirds of state-owned enterprises were restructured and listed through divestiture and reorganization.

6.1 Divestitures to Provide Incentives for Management: the Case of Shanghai Huadong Computer Co., Ltd

6.1.1 Background and Divestiture Process

Shanghai Huadong Computer Co., Ltd. (referred to as "ECC") is a state-owned enterprise under the East China Institute of Computing of the State-owned Assets Supervision and Administration Commission. It is a leading system integrator in China's IT industry. The company was established in 1993 and was the

first listed company in China's IT industry. The company's main businesses include three major segments: system integration and professional services for IT infrastructure, value-added sales of IT products, and intelligent buildings and data centers.

On December 11, 2001, China officially joined the World Trade Organization (WTO), marking a further opening up of the Chinese economy and acceleration of globalization. Joining the WTO posed a significant challenge and a huge opportunity for Chinese state-owned enterprises. They faced pressure from globalization, marketization, and competition, and had to undergo reforms to adapt to the new economic environment.

Shanghai is one of the pioneers in China's state-owned enterprise reform. Through developing a mixed-ownership economy and promoting state-owned enterprise stock system reform, mergers and acquisitions, and improving governance structures, Shanghai has achieved standardization, marketization, and modernization of state-owned enterprises. The experience and practices of Shanghai's state-owned enterprise reform provide important reference and support for China's state-owned enterprise reform, and also lay a solid foundation for the rapid development of the Chinese economy.

In the context of China's state-owned enterprise reform in the 2000s, as a state-owned enterprise, ECC established more than ten subsidiary companies during the institutional reform process. The organizational forms adopted by these companies varied, and several of them had a significant proportion of equity held by the management team. This approach can motivate the management team to be

more actively involved in the development of the enterprise, improving its operational efficiency and competitiveness. At the same time, through equity incentives, it can also attract more outstanding talents to join the enterprise, injecting new vitality into its development.

The subsidiary companies of ECC and the equity holdings of the management team can be referred to in Table 6-1.

Table 6-1: Restructuring of ECC

Subsidiaries	Main Business	Founded	Management Shareholding （When founded）
ECCOM	Network Integration and Industry Digital Solutions	2000-08	49%**
HUAPU *	Computer Sales and System Integration	1991-01	None
ECData	Data Storage Business	2001-12	45%
ECCSE	Smart Building Integration and Data Center Solutions	2008-07	45%**
TRUSIT	IT and Smartphone Outsourcing Services	2008-07	45%
ECCT	MIS Development and Services	2000-01	30%***
Huachuang I&E *	IT Product Import and Export	2000-11	None
ECC-HK *	Import and Export	2004-12	None
HUAPU CLIASON	RFID Solutions, Smart Factory Solutions	2008-05	45%***
ECO-EDU	E-Education Solutions	2014-11	60%
VSC	Software outsourcing	1998-11	45.8%

Note. The subsidiary company has now been deregistered.*

*** The equity of the management team of the subsidiary company was repurchased by the parent company, Huadong Computer, when the group's business strategy was restructured in 2013.*

**** The parent company Huadong Computer sold its shares and withdrew from the subsidiary company, when the group's business strategy was restructured in 2013.*

6.1.2 Analysis of Motivations for Divestitures

6.1.2.1 Comparison between ECCOM and HUAPU: incentive mechanism brought by management shareholding

As the author of this article worked for ECC for an extended period of time, I have personally experienced and witnessed the rise and fall of various subsidiaries established through various organizational structures during ECC's institutional reform.

As the primary research objects, the author has chosen two representative subsidiaries from these companies: Shanghai Huaxun Network Systems Co., Ltd. (ECCOM) and Huapu Information Technology Co., Ltd. (HUAPU). This is because the core businesses of ECCOM and HUAPU are comparable, with both companies selling products and providing industry digital solutions via system integration using internationally renowned brands such as Cisco and HP.

ECCOM originated from a business department of ECC and was carved out as a separate company. In August of 2000, ECC became the first domestic Cisco Gold Partner, and based on its original business, it carved out and founded ECCOM in the hopes of growing and strengthening this advantageous business through independent operation. ECC retained 51% of the equity after the division, while the management team took 49%. ECCOM's initial business performance was outstanding, and in 2007, following the reform of the shareholding system, it prepared to go public. However, due to the strategic development direction of

Huadong Institute of Computing not supporting ECCOM's listing, ECCOM withdrew its application materials for listing. In 2013, ECC repurchased the shares held by ECCOM management, and ECCOM became a wholly owned subsidiary of ECC.

HUAPU is a company that Huadong Computer has acquired from Zhong Dian Dong Hua (Krishnaswami & Subramaniam). In 1991, DH and Hewlett-Packard (John et al.) formed a joint venture to represent HP products. HP held 33.3% of the equity, while DH held 66.7%. DH and ECC both belonged to Huadong Institute of Computing under the State-owned Assets Supervision and Administration Commission. In 2001, ECC acquired DH's 66.7% stake in HUAPU, becoming HUAPU's controlling shareholder. In 2010, ECC paid 3,055 million yuan for a 33.3% stake in HP. After the completion of the equity acquisition, HUAPU became a wholly owned subsidiary of ECC and continued to sell high-end computer products.

Although ECCOM and HUAPU have comparable core businesses, their organizational structures are quite distinct. ECCOM has adopted a carveout structure, and management owns 49 percent of the company's equity. HUAPU, however, has adopted a joint venture structure, and management does not hold equity.

In the subsequent operations, the performance of the two companies showed significant differences. In the first five years after its establishment, ECCOM's revenue and profits continued to grow, while HUAPU's profits were not ideal despite its large sales volume. ECCOM's per capita revenue and per capita net profit

were both higher than those of HUAPU. Refer to to Figure 6-4.

This difference may be due to the distinct organizational structures of the two companies' management teams. ECCOM's organizational structure includes management team stock ownership, while HUAPU's does not. A management team with stock ownership is more likely to prioritize the company's long-term growth and shareholder interests. This organizational structure can motivate the management team to work harder to improve the company's performance and increase profits. In addition, management stock ownership can help the company recruit talented and devoted employees.

Figure 6-1: Sales Revenue

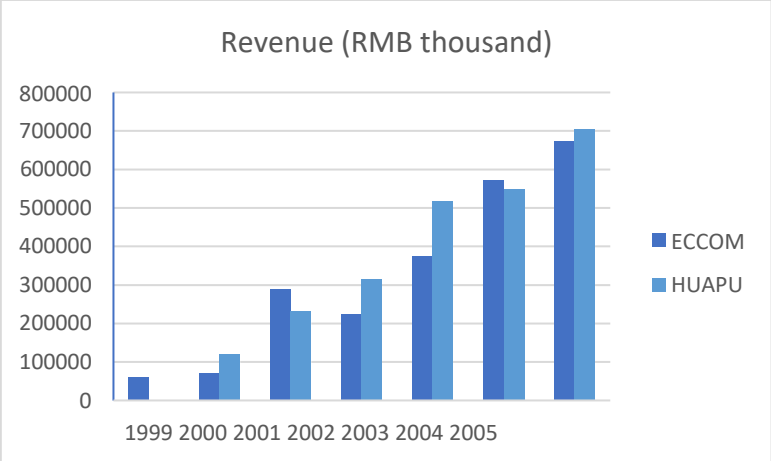


Figure 6-2：Sales Revenue Per Capita

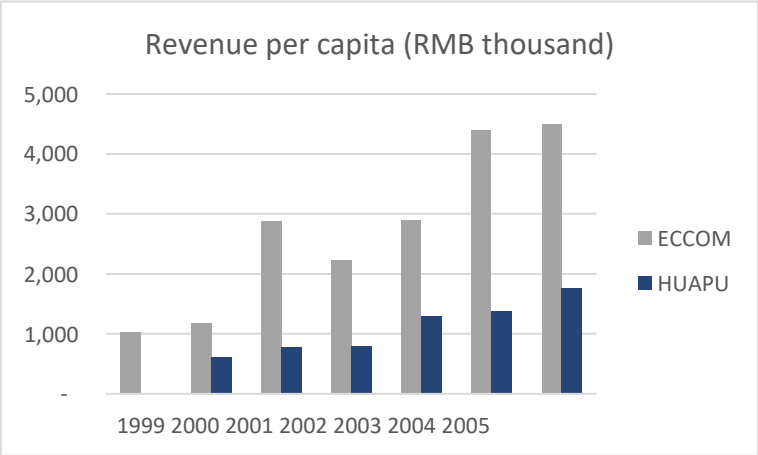


Figure 6-3：Net Profit

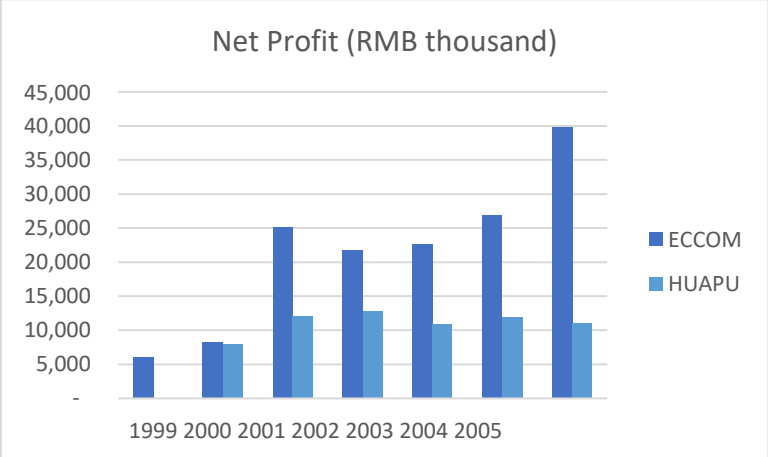
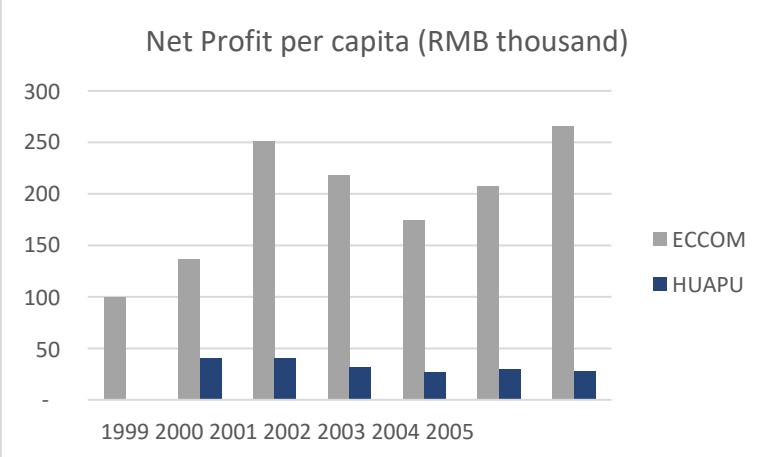


Figure 6-4：Net Profit Per Capita



6.1.2.2 The Historical Evolution of ECCOM: Negative Impact of Management's Loss of Equity and Control on the Company's Incentive Mechanisms.

Prior to 2013, EECOM was a subsidiary of EEC, with the management team holding 49% of the company's shares and relatively independent management from its parent company, as EEC's shareholding was only 51%. After 2013, however, EECOM once again became a wholly-owned subsidiary of EEC, and the management team no longer held shares in EECOM, relinquishing its management independence.

The management of ECCOM no longer holds shares, which may have a negative influence on the incentive mechanism of the company. Management holds company shares in order to benefit from the success and value appreciation of the company. When management no longer possesses shares, they may lose this incentive and motivation, resulting in a loss of zeal for company operations.

In addition, as ECCOM became a wholly-owned subsidiary of ECC, it lost operational autonomy. This implies that its autonomy and ability to make decisions would be drastically reduced during the operational process. As an independent business, ECCOM possessed greater autonomy and decision-making authority. Once ECCOM became a wholly-owned subsidiary of ECC, however, its autonomy and decision-making authority would be constrained. The parent company may impose restrictions and control on management's decisions, which may further dampen their enthusiasm.

I've compiled ECCOM's financial data from its inception until 2021. ECCOM's gross profit margin and net profit margin fluctuated relatively

consistently prior to 2013. As depicted in Figure 6-5 and Figure 6-10, however, the net profit margin deviates significantly from the gross profit margin after 2013. This may be due to the substantial increase in ECCOM's management expenses as a percentage of operating income after 2013 - from 2.99% in 2012 to 6.25 % in 2017, whereas the ratio of sales expenses to operating income remained relatively stable from 2012 to 2017 (Figure 6-5 to Figure 6-10). The considerable increase in the ratio of management expenses to operating income suggests that management's loss of shares may have diminished their incentive to control costs.

Prior to 2013, ECCOM's accounts receivable turnover days decreased from 77 days in 2006 to 24 days in 2012, indicating a rise in accounts receivable turnover efficiency. As shown in Figure 6-9, the average accounts receivable turnover days increased from 2013 to 2017 to 45 days, which is nearly double the decline in accounts receivable turnover efficiency. Figure 6-10 depicts a significant downward trend in the accounts payable turnover days from 2013 to 2015, indicating a decline in the company's accounts payable management ability. The decline in the company's operating efficiency may also indicate that management has lost incentive as a result of the loss of equity ownership.

Figure 6-5：Gross Profit Margin

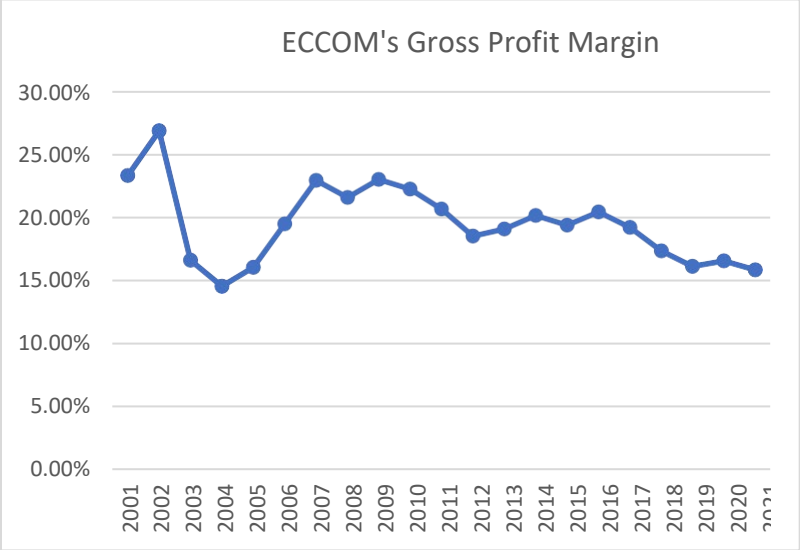


Figure 6-6：Net Profit Margin

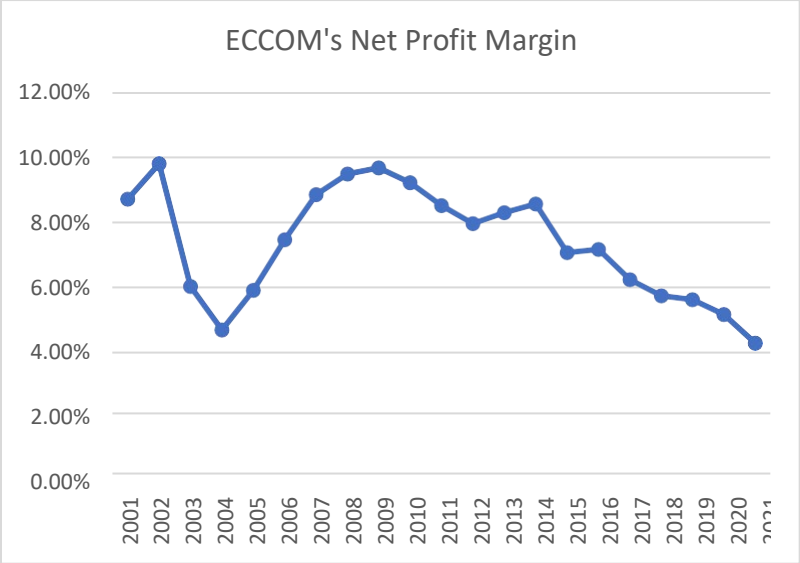


Figure 6-7： Ratio of Management Expenses to Operating Income

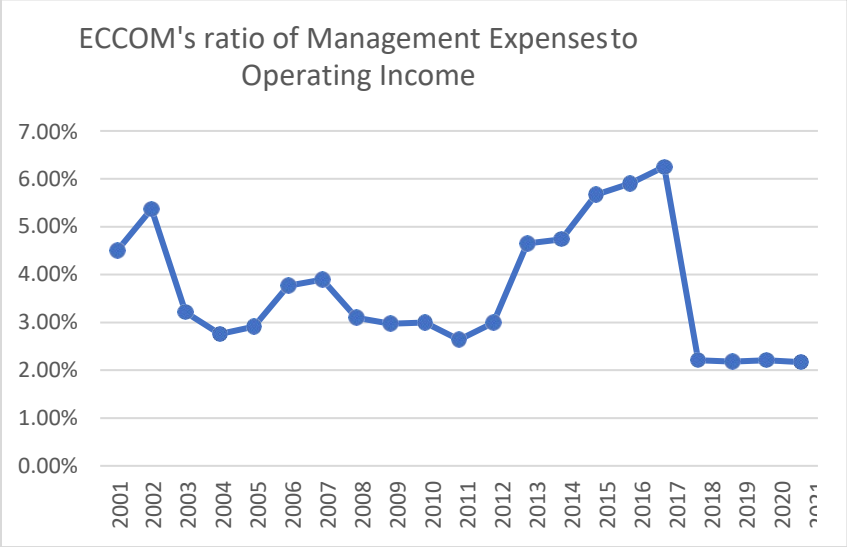


Figure 6-8: Ratio of Sale Expenses to Operating Income

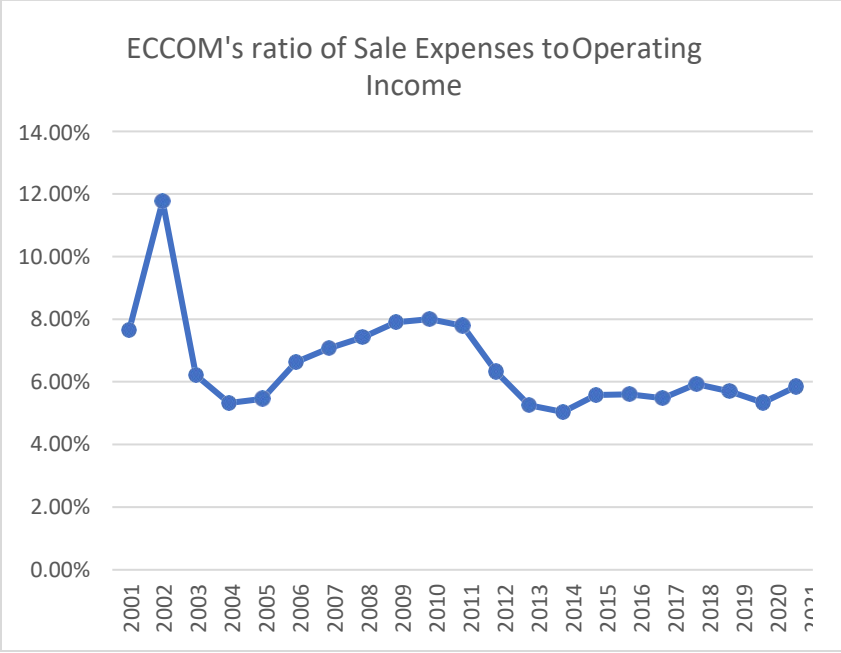


Figure 6-9: Accounts Receivable Turnover Days

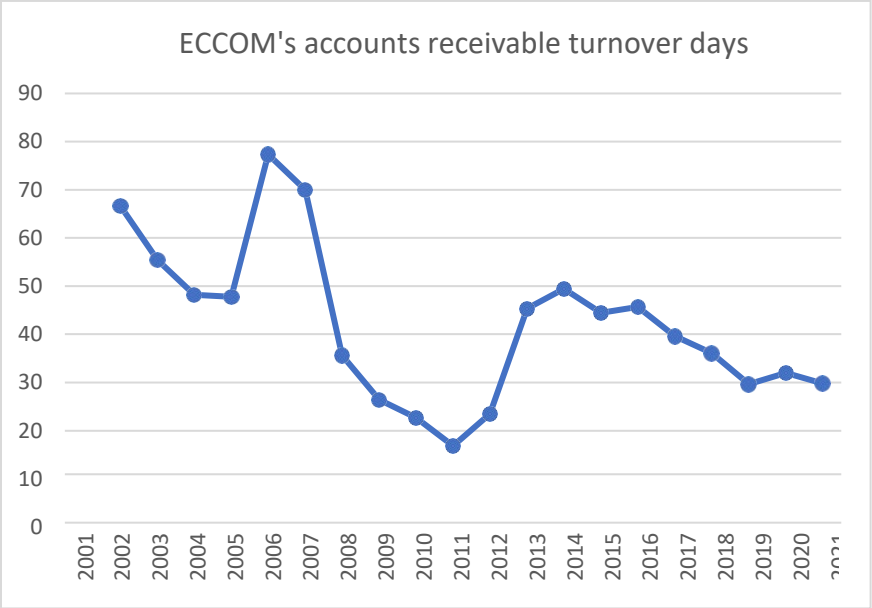
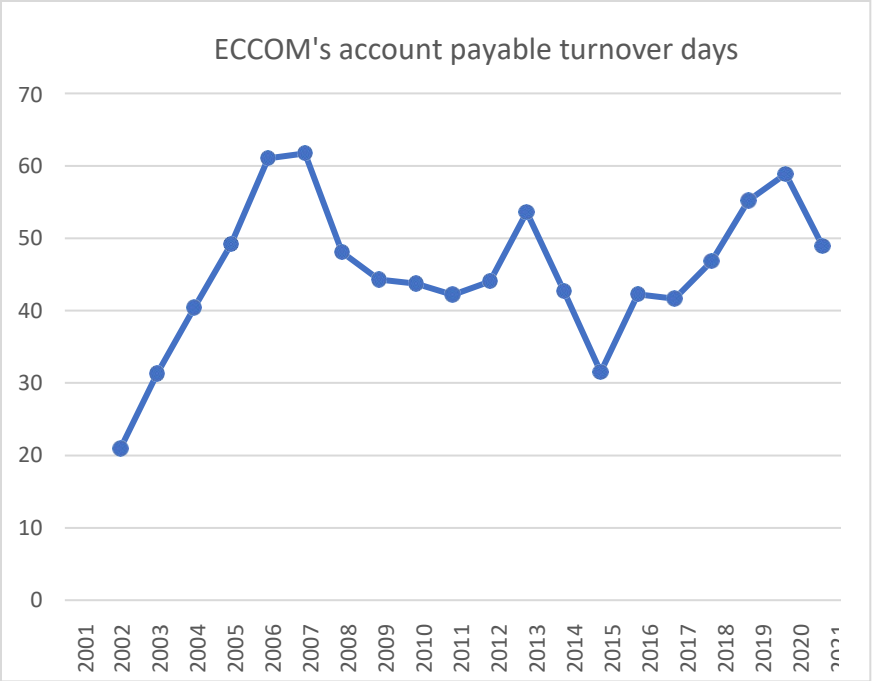


Figure 6-10: Account Payable Turnover Days



6.2 Divestitures to Manage Risk: the Case of Cheung Kong-Hutchison Group.

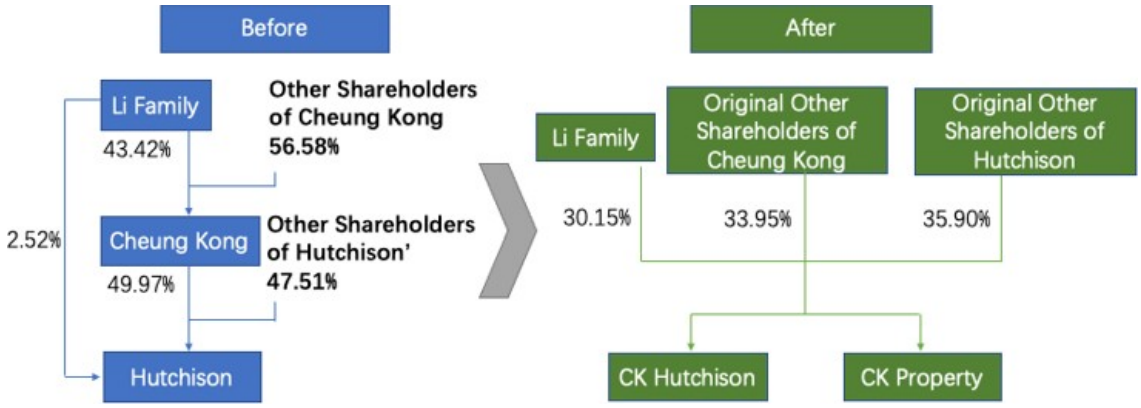
6.2.1 Background and Divestiture Process

One of the most well-known examples of such a split occurred a few years ago when the Cheung Kong Group and Hutchison Whampoa (part of the Cheung Kong Group) were split.

On January 9, 2015, Li Ka-shing's two major listed companies, Cheung Kong Holdings Limited (abbreviated as "Cheung Kong", former HKEX code: 0001) and Hutchison Whampoa Limited (abbreviated as "Hutchison", former HKEX code: 0013), simultaneously announced a major business restructuring plan.[1] In summary, the plan was to merge the assets of Cheung Kong and Hutchison into a new company registered in the Cayman Islands, CK Hutchison Holdings Limited (abbreviated as "CK Hutchison", HKEX code: 0001), and then spin off all of CK Hutchison's real estate businesses to establish a new company registered in the Cayman Islands, Cheung Kong Property Holdings Limited (abbreviated as "CK Property", HKEX code: 1113). Please refer to Figure 6-11 for details.

[1] https://www.reuters.com/article/breakingviews-hk-li-idCNKBS0KL0BF20150112

Figure 6-11: The Cheung Hong-Hutchinson Group's Spin-off



Prior to the restructuring, both Cheung Kong and Hutchison had diverse and complex business portfolios. Cheung Kong operated in the real estate sector of Hong Kong, owned rental homes and hotels both locally and abroad, real estate investment trusts, non-real estate-related public assets, and leased aircraft. Hutchison, on the other hand, had overlapping real estate businesses and rental properties and hotel businesses with Cheung Kong, as well as businesses in ports, retail, infrastructure, energy, and telecommunications. Additionally, Cheung Kong and Hutchison had many joint ventures at the time to develop and operate real estate businesses in mainland China, hotels in mainland China and Hong Kong, real estate investment trusts, and overseas infrastructure projects, among others.

After the restructuring, the situation of mixed businesses significantly improved. CK Hutchison took over all non-real estate businesses of Cheung Kong and Hutchison, including non-real estate businesses in their joint ventures. CK Property, on the other hand, took over all real estate businesses of Cheung Kong and Hutchison, including real estate businesses in their joint ventures. Throughthe

restructuring, the messy cross-shareholding among the 16 listed companies under the Cheung Kong Group was clarified, and two separate groups of listed companies under CK Hutchison and CK Property were formed.[2] Among them, CK Hutchison has 11 listed companies with non-real estate businesses, while CK Property has three listed real estate investment trusts.

6.2.2 Analysis of Motivations of Divestitures

6.2.2.1 CK Hutchison cited releasing shareholder value as the reason for the split.

The conglomerate's stock price has been plagued by a discount due to its diversification. Prior to the restructuring, Cheung Kong and Hutchison were both highly diversified companies, with significant overlap and joint ventures between the two. In addition, the complex cross-shareholding structure among the 16 listed companies under the Cheung Kong Group made it difficult for investors to understand the company's focus and business priorities. As a result, Cheung Kong's stock was undervalued by more than 20% in the market.[3] After the restructuring, the mixed business portfolio was streamlined, especially with CK Property becoming a group specializing in real estate businesses, with clear main operations and business objectives. Therefore, the spin-off helps to unlock shareholder value and improve the company's stock price.

The market's reaction to the restructuring news was positive. On the first

[2] https://articles.zkiz.com/?rbid=134889
[3] https://asia.nikkei.com/Business/Li-Ka-shing-restructures-business-to-hedge-against-China-risk

day of trading after the announcement, Cheung Kong's and Hutchison's stock prices rose by 14.74% and 12.53%, respectively. The total market value of the two companies increased by HKD 54.232 billion.

6.2.2.2 Streamline the company's investment portfolio and strengthen business focus.

The divestiture strategy is important for the development of a company. Just as a tree needs pruning to achieve lush growth, a company also needs to use divestiture strategy to have better development. If a tree is never pruned, it will become an unsightly and messy collection of branches, and similarly, if a company is allowed to develop haphazardly without divestiture, it will also become a seemingly meaningless and messy conglomerate of enterprises.[4]

If a company's businesses have clear strategic alignment with each other, these businesses will generate synergy from continuous joint operations. However, when some of the company's businesses do not match with other businesses strategically, divesting the mismatched businesses will be more valuable for the company.[5]

Prior to the spin-off, Cheung Kong and Hutchison both had a wide range of operations, with real estate and non-real estate enterprises grouped together in both businesses, making it challenging to ascertain the strategic focus of the company. The costs of coordinating several business departments in the investment portfolio

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[4] Feldman, ER. 2022. Divestitures: Creating Value Through Strategy, Structure, and Implementation. New York: McGraw Hill.

[5] Ibid.

can be extremely expensive when a company has different business units that are highly diverse from one another in type.[6] The spin-off made CK Hutchison and CK Property's investment portfolios evident, particularly for CK Property, which evolved into a conglomerate concentrating in real estate and related businesses.

6.2.2.3 Managing Risk

The corporation transitioned from two Hong Kong registered businesses to two Cayman Islands registered companies following the restructuring. Mr. Li Ka-shing responds that he is doing this for commercial convenience and not because he has lost faith in Hong Kong. He stressed how more latitude there is for dividend distribution under Cayman's legislation.

The applicable laws and jurisdiction do, however, change as a result of the change of registration jurisdiction. Cheung Kong and Hutchison were both Hong Kong-registered businesses that were subject to Hong Kong laws and judicial oversight prior to the restructuring. The Cheung Kong Group totally changed the businesses into Cayman Islands registered businesses, essentially shifting the applicable legislation to Cayman law and the court's jurisdiction from Hong Kong courts to UK courts.

Before the restructuring, the Li family held 43.42% of the shares in Cheung Kong and had absolute control over the company. In terms of Hutchison, the Li family actually held only 24.22% of the company's shares through direct and indirect holdings, but thanks to Cheung Kong's leveraged holdings, they were able

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6 Ibid.

to acquire a controlling position of 52.49% in the company. However, the Li family's ownership of both CK Hutchison and CK Property were reduced to 30.15% after the restructuring. Therefore, this restructuring was carried out at the cost of sacrificing 30% of the Li family's control over the Cheung Kong Group. The Li family's fortune increased by only 7% as a result of this spin-off, though.[7]

Therefore, many scholars believe that the 30% decrease in control is not worth the 7% wealth appreciation for the Li family. They propose that the requirement for risk isolation may be what drives the restructuring's relevance.[8] As can be seen from the change in the company's registration jurisdiction, as analyzed earlier, the change in registration jurisdiction means that the applicable law and jurisdiction have shifted from Hong Kong to the UK, providing a layer of protection for the assets of the Cheung Kong Group.

The establishment of a firewall between the real estate industry and other industries is another benefit of the spin-off. The proportion of the Cheung Kong Group's real estate land reserves in mainland China is 93%. If the real estate business encounters systemic risks, such as the impact of China's economic slowdown and US interest rate hikes on the real estate markets in Hong Kong and mainland China,[9] this firewall can prevent risks from spreading to the company's non-real estate businesses.

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[7] https://articles.zkiz.com/?rbid=134889
[8] Ibid
[9] https://asia.nikkei.com/Business/Li-Ka-shing-restructures-business-to-hedge-against-China-risk.

6.3 Divestitures to Maintain Innovation and Competitiveness: the Case of Alibaba

6.3.1 Background and Divestiture Process

Alibaba made a significant announcement referred to as the "1+6+N" [10]organizational restructuring on March 28. In other words, the Alibaba Group was split into six business groups and several company businesses. Regarding management, every business organization and company is separate from Alibaba. Under the direction of the board of directors of each business group and business firm, they each establish their own board of directors, hire their own CEO, and put the CEO responsibility system into place. Additionally, apart from the Taobao and Tmall group, which will continue to be fully owned by the Alibaba Group, the other five business groups can flexibly raise external funds and may seek to go public independently.

In the so-called "1+6+N" structure, "1" stands for the Alibaba Group, "6" for the six business groups represented by Taobao Tmall Business, Local Life, Cainiao, International Digital Commerce, and Grand Entertainment, and "N" for business firms like Ali Health, Sun Art Retail, Intime Commercial, Hema, and Quark. Except for his role as CEO of the Alibaba Cloud Intelligence Group, Zhang Yong, the CEO of the Alibaba Group, no longer oversees the operations of other business groups and corporations. As seen in Figure 6-12 , each of these business associations and corporations has a CEO.

[10] https://www.yicai.com/news/101715329.html

Figure 6-12: Alibaba's "1+6+N" Organizational Reform

Groups/Businesses	Details	CEOs
Alibaba Cloud Intelligence	Alibaba cloud, cloud computing	Zhang Yong
Taobao-Tmall	E-commerce	Dai Shan
Local Services	Gaode Map, Ele.me	Yu Yongfu
Cainiao	Smart logistics operations	Wan Lin
Global Digital Business	Alibaba International Business	Jiang Fan
Digital Media and Entertainment	Alibaba Pictures, Youku Tudou,etc.	Fan Luyuan
N	Alibaba Health, Hema, Quark, etc.	——

On May 18th, Alibaba announced that Alibaba Cloud Intelligence will be fully spun off from Alibaba Group through dividend distribution. Before the spin-off, Alibaba Cloud Intelligence will introduce private investors. As part of the spin-off, Alibaba Cloud Intelligence will seek independent listing, with an estimated completion time of 12 months. In addition, Cainiao Group and the new retail business company Hema are also preparing for their IPOs. Furthermore, Alibaba's international digital business group is also exploring the introduction of external investors.

Alibaba also made a stunning announcement in September 2018 when Jack Ma stated he will hand over the CEO role of the most valuable corporation in Asia to Zhang Yong in September 2019. What makes the news surprising is that Ma's successor, Zhang Yong, is not a member of his family, which is extremely rare among Asian companies.

Jack Ma has a deep understanding of how to manage people. At the beginning of his entrepreneurship journey, he referred to a group of core executives

as "Alibaba Partners," and these members were like his family. This small circle of people could go to Jack Ma's home for dinner at any time. As a post-incentive system, Alibaba Partnership can effectively motivate Jack Ma's closest and most loyal employees.

As the company expanded, the equity of Alibaba Partners was inevitably diluted. To ensure that the members of Alibaba Partners had control, Jack Ma created a dual-class share structure that gave them superior voting rights disproportionate to their shareholdings. Jack Ma used this method to motivate Alibaba Partners and maintain the company's innovation.[11]

However, as the company grew, equity incentives became less effective. This is because the proportion of equity held by executives became smaller, and the fluctuation of stock prices became less correlated with the innovation spirit or effort of managers. The performance of individual managers, whether good or bad, seems to have a smaller impact on the company as a whole.

It was wise of Jack Ma to appoint Zhang Yong as his successor, which means that Alibaba has taken a crucial step in organizational succession. Historically, when a large company has a great and irreplaceable founder like Jack Ma, it is difficult for the company to maintain its competitiveness. This succession makes Jack Ma replaceable.

The heavyweight news released by Alibaba this year means that the company is still exploring what kind of organizational structure can help the large company maintain its innovation capabilities.

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[11] https://qz.com/work/1390430/jack-ma-built-alibaba-into-a-big-family-he-should-now-break-it-up

Actually, in order to sustain its capacity for innovation, Alibaba has been exploring more agile new organizational models from the start. Alibaba made its first significant organizational adjustment in 2012 when it switched from the "Big Taobao" approach to a business unit model. [12] The "Big Taobao" strategy has been used by Alibaba since 2008, with Taobao and three other business lines operating under the umbrella of Alibaba Group. In order to provide each segmented business more room for expansion, the corporation was split into seven business units in 2012 and 25 business departments in 2013. After the split, a presidential system was put in place at that time.

However, in the following decade, Alibaba seemed to have abandoned the idea of splitting. Except for Ant Group being completely spun off from Alibaba, the rest of the business remained within Alibaba's internal structure. In 2015, Alibaba implemented a "small front desk, big middle desk" organizational structure, using a unified middle platform as the underlying support, serving all front-end businesses, with sub-departments including the search business unit, shared business platform, and data technology platform.

Since 2021, Alibaba has reverted to the "divide and rule" philosophy and has started implementing a segment governance model based on business unit operational responsibility. This model calls for the presidents of each business unit to run the company like a CEO and be accountable for profits and losses.[13]

This year's split is more significant because it directly abolishes the

[12] https://www.xcf.cn/article/68eac07de5a711ed8e250c42a1b68ab6.html
[13] https://finance.sina.com.cn/tech/2021-07-02/doc-ikqcfnca4500797.shtml

organizational structure of business units and creates six independent business groups as well as several independent business firms. Furthermore, apart from the Taobao and Tmall group, other business groups and companies are exploring the possibility of finding external investors, such as private equity, and seeking opportunities to go public independently.

6.3.2 Analysis of Motivations of Divestitures

6.3.2.1 Equity or dividend incentives will become more effective.

Prior to the split, equity incentives had lost some of their effectiveness due to the larger size of the corporation. This was due in part to the decreasing percentage of shares that each CEO was able to own and in part to the weakening relationship between the stock value of the company and the skill and effort put forth by each executive.

Each firm is now smaller as a result of the split, and consequently, the management teams of each little company will be re-incentivized. Their abilities and efforts will directly affect the split company's profits and losses. Each CEO of the split firm will be given more authority and freedom to run their respective companies, and the performance of each CEO will be more closely correlated with the performance and stock price of the company. Equity incentive plans and dividends will become more targeted and appealing as a result, assisting the business in retaining and luring more talent.

6.3.2.2 The CEO of each split company will have actual control over the company.

The split also means that the CEO of each small company will have actual control over the new company. Control can also be a powerful incentive tool, in addition to the usage of equity and dividends.

Six CEOs, including Zhang Yong and Dai Shan, will go from their positions as skilled professionals to business owners under the new structure. Additionally, Zhang Yong wrote in a public letter that he hoped every Alibaba employee could regain their entrepreneurial spirit before setting out on a new adventure. [14] Regarding the spin-off of Alibaba Cloud Intelligence Group, Zhang Yong stated that the spin-off can make Alibaba Cloud Intelligence "completely independent facing the market, further strengthen business strategy, optimize organization and operations". [15] Zhang Yong also mentioned that "we proactively implement organizational changes, give businesses greater independence to enhance their competitiveness."

These professional managers were previously under the umbrella of the Alibaba family, and although they had a certain degree of control over the company, they still had to report to Zhang Yong. On the other hand, the group was also responsible for risk taking, for example, Taobao and Tmall had to use their profits to offset the losses of other departments each year. Following the spin-off each business will be accountable for its own gains and losses, reaping rewards and taking risks on its own. This will foster each company's competitiveness in the market and encourage the ability of executives to innovate.

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[14] https://finance.sina.com.cn/stock/roll/2023-03-28/doc-imynmksc8223911.shtml
[15] https://www.yicai.com/news/101760459.html

6.3.2.3 Unlocking Shareholder Value

When investors or stock analysts cannot understand how a company's investment portfolio effectively synergizes together, they tend to undervalue the overall value of the company. If a company is overly diversified and has a complex business structure, its stock price is easily undervalued. This phenomenon of undervalued diversified companies is often referred to as the "diversification discount" or "conglomerate discount," which mainly refers to the company's overall stock price being lower than the sum of the values of all its parts. Empirical research has found that the stock prices of diversified companies are usually on average 13% to 15% lower than the value of their total business sum.[16]

Copanies can address this issue by spinoff. Following the spinoff, every small business has a distinct and defined business focus, making it easy for stock analysts and investors to grasp what the company is doing and where its business focus resides. As a result, they will evaluate each small business separately based on their actual value and business prospects，rather than evaluating Alibaba as a whole. As a result, the spinoff will allow shareholders to get the full value of Alibaba.

Alibaba has many businesses with the potential for independent listing, such as Alibaba Cloud Intelligence, Cainiao Group, and Hema, all of which have impressive valuations. Alibaba Cloud Intelligence, due to the high-growth cloud computing industry, has a valuation of 283.6 billion yuan; Alibaba's new retail

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[16] Feldman, ER. 2022. Divestitures: Creating Value Through Strategy, Structure, and Implementation. New York: McGraw Hill.

businesses, including Hema and Intime, are in the incubation period with a valuation of 84.2 billion yuan. In the 2023 Hurun Global Unicorn List, Cainiao's valuation reached as high as 185 billion yuan. If each business segment is valued separately, Alibaba's market value is likely to far exceed the current level.[17]

This is supported by the reaction of investors to Alibaba's split. Alibaba's market capitalization has decreased by nearly $600 billion since its stock price peaked in October 2020, according to a CNBC report. However, before the US stock market opened on Monday, Alibaba's stock price increased more than 9% as a result of the news of the split. Reuters reported that Alibaba's stock listed in Hong Kong rose as much as 16.3% in early trading on Wednesday, following the overnight rise of 14.3% in its US-listed stock.

3.6.1.4.4 Making each split enterprise responsible for their own profits and losses.

Alibaba's previous operational strategy was "conveyor belt development", which means using mature businesses to nurture new ones. When mature businesses enter a decline phase, new businesses can be used to drive growth. Alibaba once used 1688 and investment funds to support the free period of Taobao. Later, when Taobao and Tmall became profitable, they began to use Taobao and Tmall to nurture other businesses. As Alibaba's business became more diversified, the burden on Taobao and Tmall became increasingly heavy.

In the past five years, the Taobao-Tmall business group has contributed almost all of Alibaba's profits, while many other businesses are still in continuous

[17] https://www.stcn.com/article/detail/869757.html

losses.[18] For example, the Alibaba Digital Media and Entertainment Group has been losing money continuously for seven years until it finally made a profit in 2022. The development of this group has been sustained by continuous funding from Taobao and Tmall, and its growth has been far below Alibaba's initial expectations.

Under the new structure, each business group and company will be responsible for their own profits and losses, and， will be subject to market scrutiny. This might also imply that Alibaba will stop assisting some underperforming business units in favor of letting the successful ones grow unrestricted, resulting in stronger growth.

6.4 Conclusion and Discussion

Scholars believe that the reason for the divestitures of large US corporations is the agency problem caused by excessive diversification. For example, when a company becomes too big and has many departments, it becomes more difficult to establish performance evaluation criteria. The efforts of department managers often only reflect in the performance of their respective departments, which may not necessarily align with the overall performance of the company. For startups, the performance of the company is often not good at the beginning. Therefore, divestures can serve as a corrective measure for internal control and inefficient management.

[18] https://www.163.com/dy/article/I1FTVM2I0531M1CO.html

In the United States, large corporations have clear ownership structures, and due to the dispersed ownership of shares, management is often entrusted with decision-making authority, giving them actual control over the company. Therefore, the main factors affecting divestures decisions are related to the management agency problem.

In Asia, private companies typically have concentrated ownership of shares, and the controlling shareholders are often the de facto controllers of these companies. As a result, they may be reluctant to divest even when the company's efficiency is low, as divestitures could reduce their control and influence over the company. The motivations for divestitures are often not related to management incentives, but rather other factors such as risk diversification.

State-owned enterprises operate under the principle of public ownership, where nominal ownership belongs to the entire population, but individuals do not possess actual rights or control over these enterprises. The government is the true owner of these enterprises but does not directly engage in their operations. Instead, designated managers act as the controllers and operators of state-owned enterprises.

There are several key reasons why state-owned companies may choose to divest. Firstly, divestiture can address funding needs. The establishment of the two Chinese stock exchanges in 1990 and 1991 aimed to provide refinancing options for state-owned enterprises (SOEs) facing capital shortages. State-owned banks were unable to adequately support the transition from a planned economy to a market economy. As a result, two-thirds of state-owned enterprises underwent restructuring and were listed through the process of divestitures and reorganizing.

Secondly, divestiture can address efficiency issues. Managers of state-owned enterprises receive salaries based on government-set compensation standards. Although there may be incentive schemes such as bonuses, the correlation between compensation standards and business performance is generally low.

Thirdly, divestiture can address efficiency issues by introducing other forms of capital. Zhang (1998) proposed the need to reform state-owned enterprises by introducing different types of capital. This would allow the newly introduced capital to participate in corporate governance and decision-making as shareholders. Simultaneously, the role of original state-owned capital in management should be weakened to establish an effective governance structure.

7 Study 3： Divestiture Tools

In our previous study, we observed that state-owned enterprises and private enterprises have different motivations for divestiture, which can influence their choices in the divestiture process. When these companies go public and the concentration of shareholders decreases, moving towards a more public corporation structure, their motivations for divestiture may change, thereby influencing the choice of divestiture method.

In Asia, both state-owned enterprises and private enterprises have increasingly gone public and adopted corporate governance models that resemble the "Anglo-American" system. Under these circumstances, do publicly listed

companies have a greater ability to address the problem of information asymmetry in equity transactions compared to non-listed companies? Are they more willing to relinquish control over the post-divestiture companies and favor management shareholding? How do state-controlled enterprises differ from privately controlled enterprises in these aspects? To answer these questions, this study collected data from 53,629 companies in Asian countries, including 16,225 Chinese companies, that underwent divestitures for strategic purposes between 1992 and 2022. We will do subsample analysis on Chinese companies and Asian companies.

7.1 Institutional Background

7.1.1 Different Types of Divestiture Tools

The scope of the current study considers the choices among four divestiture governance modes, spin-off, equity carve-outs, sell-off with managements acquirors and sell-off without managements acquirors.

We categorize divestiture tools based on the acquirors. If the divested unit is sold to another company or investor group, it is referred to as a sell-off divestiture. If the divested unit is not sold to a third party, and the equity share of the divested unit is distributed among the current shareholders of the parent companies, it is classified as a non-sell-off divestiture. Sell-offs of business units involve finding a prospective buyer company, so there is market matching process (Corredor & Mahoney, 2021).

Equity carve-out and spin-off are two subcategories of non-sell-off divestitures. Equity carve-out differed from spin-off mainly in the post-divestiture

relationship of parent companies and spun-off child companies. In an equity carve-out, parents divest 20% shares on average of the new entity (Allen & Phillips, 2000). The subsidiary becomes a separate publicly traded company, but the parent company retains a majority stake and continues to have control over the subsidiary's operations. The members of the equity carve-out's board can be, and often are, the same as the corporate parent's board members, and its management team is likely to be appointed by the parent company (Anslinger et al., 1999).

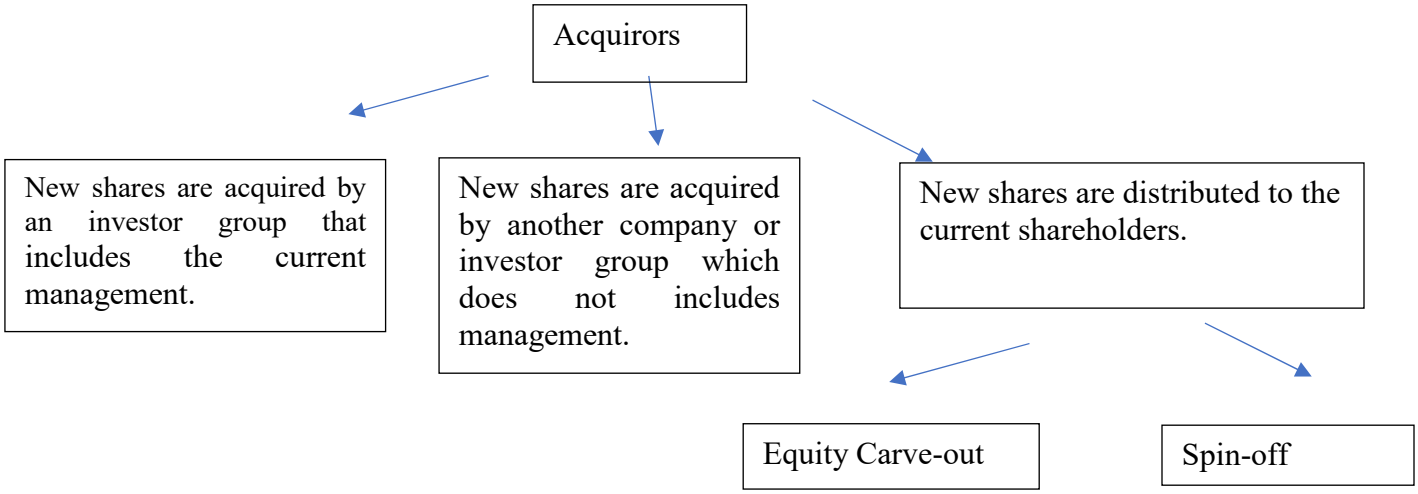
In a spin-off, the parent company makes pro-rata distribution of the shares of the new entity to its existing shareholders, making the subsidiary a separate independent company. The parent company does not retain majority ownership in the subsidiary and has no control over its operations. In spin-off, there is a cleaner separation between the parent company and the spin-off. The original parent company retain "no practical control" over the new entity. The spun-off unit will not be conditioned to respond to the parent company's management team. One typical example is the spin-off of Weibo from Sina. Weibo Corporation, one of China's leading social media platforms, was spun off from its parent company Sina Corporation in 2014. Weibo went public on the NASDAQ stock exchange in the United States just a few months after the spin-off. This initial public offering (IPO) was highly successful, raising over $500 million and valuing the company at around $3.5 billion. The IPO helped to establish Weibo as a major player in the global social media landscape. Weibo now has a clear separation from Sina, and its management team no longer needs to report to Sina's management. This has allowed Weibo to focus on its own strategy and vision, and to make more

autonomous decisions.

Figure 7-1: Differences among Spin-offs, Equity Carve-outs and Sell-off

	Definition	Features
Not acquired by another company or private investor group	The owners of the parent companys are the owners of the new entity	There are no buyer companies, so no problems with information asymmetry, or market matching process. (Corredor and Mahoney， 2021)
Spin-off	Pro-rata distribution of of (majority) new shares in a business unit to the existing sharehodlers of the parent company (Gordon et al., 1984; Rosenfeld, 1984)	There is a cleaner separation between the parent company and the spin-off. In practice, parents divest 99.2% on average of the new entity (Semadeni and Cannella, 2011). The origional parent company retain "no practical control" over the new entity. Spun-off unit will not be conditioned to respond to the parent company's management team.
Equity Carve-out	Public offerings of (minority) new shares in business unit (Frank and Harden, 2001; Schipper and Smith, 1986)	In practice, parents divest 20% on average of the new entity (Allen and McConnell, 1998). The parent company typically holds controlling interest after the divestiture. The members of the equity carve-out's board can be, and often are, the same as the corporate parent's board members, and its management team is likely to be appointed by the parent company (Anslinger et al., 1999)。
Acquired by another company or private investor group	The new entity is sold to another company or investor group	sell-offs of business units involve finding a prospective buyer company.
Acquior including management		The new owner may include the management of the original parent company or of the acquiror.
Acquior not including management		The new owner may not include the management of the original parent company or of the acquiror.

Figure 7-2: Differences among Spin-offs, Equity Carve-outs and Sell-off



"Acquiror includes management" is a divestiture tool used in divestitures where the management of the divested unit is taking an equity interest in the divested unit as part of the divestiture. For example, in 2015, eBay divested its subsidiary PayPal into a new publicly traded company. As part of the spin-off, PayPal's management team received shares in the new entity, making them the management team for the newly formed company. This allowed them to have more control over the direction and operations of the divested unit and aligned their interests with those of the new company's shareholders. The management team's equity interest in the new company also served as an incentive for them to work towards maximizing the company's value and profitability.

7.2 Theory and Hypotheses

7.2.1 Information Asymmetry in the Divestitures

The complexity and size of the company make it difficult for external investors to evaluate, leading to the risk of adverse selection for investors. Due to information asymmetry, investors are hesitant to invest in opaque companies, resulting in a lower market value than the true value (Krishnaswami and Subramaniam, 1999; Bergh and Lim (2008).

Sellin-off divestitures involves finding potential buyers, which also involves information asymmetry and market matching processes. Regulatory agencies do not require non-listed companies to disclose company information, resulting in low transparency and more serious information asymmetry issues, making it more difficult to find suitable acquirers.

Hypothesis H1A: Compared with unlisted companies, listed companies are more likely to sell off the divested entity to another company or investor group.

In the divestiture of state-owned enterprises, investors face the dilemma of a "lemon market" and are worried that the projects brought out by state-owned enterprises are not only inefficient, but also burdened with debt, redundancy, and other issues, making them reluctant to invest. Additionally, the decision-making process in state-owned companies may involve political considerations that are not immediately apparent to outside investors.

Hypothesis H1B: Compared with unlisted private companies, unlisted state-owned companies are less likely to sell off the divested entity to another company or investor group.

7.2.2 The Trade-off between Controllership and Giving Incentives.

In divestitures, the "parent company" wants to maintain decision-making control over the newly established company while also providing autonomy and incentives for the new company to maximize its value. Different types of companies have different trade-offs.

One difference between equity carve-out and spin-off is whether the parent company retains different levels of decision-making control over the divested unit (Hart & Moore, 1990).

Compared to unlisted private or state-owned companies, listed companies often have a wider distribution of ownership and a clearer separation of ownership and control. Additionally, the management of listed companies is more likely to be pressured by shareholders and the board of directors to make decisions that maximize company value. Therefore, compared to unlisted companies, listed companies tend to give more autonomy to the divested unit.

Hypothesis 2A: Compared with unlisted companies, listed companies are more likely to choose the spin-off over equity carve-out.

State-owned companies may be more likely to use equity carve-outs than spin-off. One reason for this is that equity carve-outs allow the government to retain control over the company while still raising capital. This is particularly important for state-owned companies that operate in strategic industries or provide essential services, as the government may want to maintain a degree of control over these assets. Another possible reason why state-owned companies prefer equity carve-outs is that they are often subject to stricter regulations than non-state-owned companies. In many cases, state-owned companies are required to adhere to specific

rules and regulations that limit their ability to spin off assets. For example, some countries require state-owned companies to maintain a certain level of ownership in their subsidiaries, which may make it difficult to spin off these assets without violating these regulations. Finally, state-owned companies may prefer equity carve-outs because they offer greater flexibility than spin-off. With an equity carve-out, the parent company can sell a portion of its equity to the public and use the proceeds to invest in other areas of the business or pay down debt. This allows the parent company to maintain control over the subsidiary while still generating value for shareholders.

Thus, we hypothesized that state-owned companies are more likely to use equity carve-outs than the spin-off as a means of divesting their assets.

Hypothesis 2B: Compared with unlisted private companies, unlisted state-owned companies are more likely to choose the equity carve-out over spin-off.

7.2.3 Agency Problem in the Divestitures

Shareholders and managers have long-term conflicts of interest. There are two ways to solve the agency problem: the first method is to align the interests of managers and shareholders. The second method is to directly supervise the decisions of managers through the company's board of directors or shareholders. In unlisted private enterprises, the largest shareholder is often the manager of the enterprise, the degree of equity concentration is high, and the owner of the company can directly participate in decision-making or supervise management. However, listed companies have a large number of shareholders, and the cost of using the second method to supervise managers is higher. Therefore, listed companies usually

have more mature performance evaluation and equity incentive mechanisms.

Compared to private companies, public companies often have a wider distribution of ownership and a clearer separation of ownership and control, which makes it more likely for the management of divested subsidiaries to receive equity incentives. Management and core employees have a better understanding of the actual operation and management of the enterprise compared to other shareholders. By participating in management or employee shareholding plans, it partially solves the problem of information asymmetry caused by the separation of ownership and management in the companies.

Previous research has shown that management buyouts (MBO, referring to the management's purchase of all or part of a company's shares) are more likely to occur in the divestiture of non-core assets (Jensen, 1993). On the other hand, research has suggested that MBOs are more prevalent in high-tech industries. This is due to the emergence of high-tech by-products within a company that may not be considered core to the parent company's future development. Additionally, these activities may require specialized skills that are lacking within the parent company, further motivating them to divest these businesses. Wright and McMahan (1992) found that management involved in buyout are interested in breaking free from the constraints of the parent company to fully seize the wave of technology. Therefore, we proposed the following,

Hypothesis 3A: Compared with unlisted government-owned and private companies, listed companies with a wider spread of shareholders are more likely to have management acquiror, especially in high-tech industries.

Management stock-based compensation refer to a kind of compensation given by companies to their management team in the form of equity shares besides the regular cash or salary and bonuses they receive by achieving medium and long-term performance goals or providing long-term services. Common forms of compensation include restricted stock, stock options, and stock reward plans. Compared with stock-based compensation, the risk of management holding equity is higher. Management equity holdings emphasize more on their identity as partners of the company. They invest in the company to become shareholders, hold stocks for the long term, share profits, and bear risks. The rights and obligations of management equity holdings and stock-based compensation are different. Management equity holdings usually enjoy voting rights, management decision-making rights, and compensation benefit, while equity incentives mainly reflect compensation benefit.

In Chinese state-owned companies, management equity holdings have always been controversial. One reason is that state-owned enterprises lack transparent and standardized holding procedures and pricing mechanisms. With the deepening of state-owned enterprise reforms, the Chinese government proposed the concept of "mixed ownership reform." Management equity holdings have gradually become a hot spot of reform. In 2016, the State Council issued the "Employee Shareholding Plan for Mixed Ownership Enterprises" (Document No. 133) and the "Equity and Dividend Incentive for State-owned Technology Enterprises" (Document No. 4) to promote employee shareholding. According to regulations, the total amount of employee shareholding shall not exceed 30% of the total share

capital of the company, and the proportion of a single employee's shareholding shall not exceed 1% of the total share capital. Companies are encouraged to reserve a certain amount of equity to attract talent. Shareholding employees should work in key positions and be scientific research personnel, management personnel, and business backbone who have a direct or significant impact on the company's operating performance and sustainable development.

Since state-owned companies are subject to various regulations by the government. We propose the following assumptions,

Hypothesis 3B: Compared with unlisted private companies, unlisted state-owned companies are less likely to have management acquiror. However, in the high-tech companies, the probability may increase.

7.3 Data Construction and Research Method

7.3.1 Sample Selection

We collected the data from the M&A section of Refinitiv database, where we had information of 53,629 companies based in Asian countries that underwent divestitures between 1992 and 2022. In our study, we examined four significant divestiture techniques, which include equity carve-out, spin-off, sell-off with management acquiror, and sell-off without management acquiror. We excluded cases where the divestitures were not made for positive strategic purposes. To concentrate more on Chinese companies, we also select Chinese companies to do our subsample analysis. Our research reveals that the majority of divestitures,

approximately 96%, involved selling subsidiaries to other firms or investor groups, while equity carve-out and spin-off accounted for less than 3%.

7.3.2 Variable Definition

We use the Probit model to estimate the preferences of different types of companies towards divestiture methods. The first type of preference: the dependent variable is a binary variable, with a value of 1 indicating that a parent company's divestiture method is sell-off, and a value of 0 indicating non-sell-off. The second type of preference: the dependent variable is a binary variable, with a value of 1 indicating that a parent company's divestiture method is equity carve-out, and a value of 0 indicating spin-off. The third type of preference: the dependent variable is a binary variable, with a value of 1 indicating that an acquiring company includes management, and a value of 0 indicating otherwise.

The information contained in the data pertains to details such as the parent company's location, industry, and public status type, hi-tech dummy as well as those of the divested unit. Additionally, it includes the deal value and divestiture tools used.

The dataset categorized the observed companies into three groups: listed companies, government-owned unlisted companies, and private unlisted companies. In this context, government-owned companies are defined as those that are 50% or more owned by the government and are not publicly traded. Private companies are those that are majority-owned by individuals or families and are not publicly traded. Listed companies are those that are traded on a stock exchange and may or may not

have an actual controller.

Table 7-1: Divestiture Tools used by Different types of Companies

Count/%	Equity carve-out	Spinoff	Sell-off (with management acquirors)	Sell-off (without management acquiror)	Total
Government (unlisted)	257	20	35	4890	5202
	4.94	0.38	0.67	94	100
Private (unlisted)	26	73	325	19452	19879
	0.13	0.37	1.63	97.85	100
Listed	22	332	966	27224	28548
	0.08	1.16	3.38	95.36	100
Total	305	425	1326	51566	53629
	0.57	0.79	2.47	96.15	100

The divestitures are classified into four types, which are equity carve-out, spin-off, sell-off with management acquirors and sell-off without management acquirors.

We include a hi-tech dummy variable that takes a value of one if the parent company belongs to the list of hi-tech groups, which comprises companies in the fields of biotechnology, communications, computer equipment, electronics, and general technology (Table 7-3). It shows that the percentage of giving management equity is higher in hi-tech industries.

Table 7-2: Frequency by Divestiture Tools

	Percentage	Count
Equity Carveout	0.6%	305
Spinoff	0.8%	425
Sell-off with management acquirors	2.5%	1326
Sell-off without management acquirors	96.2%	51566
Sell-off	98.7%	52892
Hi-tech dummy	21.3%	11400

Table 7-3: The Frequency (percentage) of Four Divestiture Tools adopted by Different Industries in Asian Countries

Frequency/%	Equity Carve-out	Spin-off	Sell-off (with management acquirors)	Sell-off (without management acquiror)	Total
Communication	10	17	53	1449	1529
	0.65	1.11	3.47	94.77	100
Computer Equipment	2	31	213	3874	4120
	0.05	0.75	5.17	94.03	100
Electronics	3	32	69	1881	1985
	0.15	1.61	3.48	94.76	100
Biotechnology	6	20	53	2133	2212
	0.27	0.9	2.4	96.43	100
Non-hi-tech	284	325	938	42229	43783
	0.65	0.74	2.14	96.45	100
Total	305	425	1326	51566	53629
	0.57	0.79	2.47	96.15	100

7.4 Empirical Results

We initiate our empirical analysis by investigating the first hypothesis. The results are presented in Table 7-4. As indicated in the top row, after taking into account industry and regional fixed effects, it is apparent that listed companies are significantly more prone to divest their units through sell-off to other companies or investor groups. Furthermore, Table 7-5 shows that in comparison to unlisted private companies, unlisted state-owned companies are considerably less likely to sell-off their divested units to other companies or investor groups. Deal value is negatively related to the probability of sell-off.

Table 7-4: Probit Model of H1A

Sell-off probit model	(1)	（2）	（3）	（4）
Listed_dummy	0.074**	0.158***	0.159***	0.142***
	(0.03)	(0.04)	(0.04)	(0.04)
Hi-tech		0.06	-0.015	-0.05
		(0.05)	(0.11)	(0.11)
Deal value US$		-0.108***	-0.108***	-0.116***
		(0.011)	(0.011)	(0.011)
Industry FE	No	No	Yes	Yes
Region FE	No	No	No	Yes
Observations	53629	35041	35041	35041

Table 7-5：Probit Model of H1B

Sell-off probit model	(1)	（2）	（3）	（4）
Gov_dummy	-0.963***	-1.074***	-1.071***	-1.076***
	(0.045)	(0.060)	(0.060)	(0.064)
Hi-tech		0.328**	0.009	-0.006
		(0.102)	(0.183)	(0.189)
Deal value US$		-0.017	-0.015	-0.039*
		(0.019)	(0.019)	(0.017)
Industry FE	No	No	Yes	Yes
Region FE	No	No	No	Yes
Observations	25081	16281	16281	16281

Table 7-6 and Table 7-7 investigate hypothesis 2A and hypothesis 2B, respectively. The findings indicate that, in comparison to unlisted companies, listed companies are more inclined to opt for spin-off rather than equity carve-out. Additionally, when compared to unlisted private companies, unlisted state-owned companies are more likely to choose equity carve-out over spin-off. These results remain consistent even after incorporating industry and regional fixed effects.

Table 7-6：Probit Model of H2A

Equity Carve-out probit model	(1)	（2）	（3）	（4）
listed_dummy	-2.220***	-2.355***	-2.361***	-1.951***
	(0.126)	(0.171)	(0.173)	(0.196)
Hi-tech		-0.362	0.118	0.539
		(0.247)	(0.447)	(0.450)
Deal value US$		-0.057	-0.062	-0.010
		(0.050)	(0.053)	(0.042)
Industry FE	No	No	Yes	Yes
Region FE	No	No	No	Yes
Observations	730	441	441	441

Table 7-8 examines hypothesis 3A and presents the findings of five models in this analysis. Model 1 suggests that the listed status of the parent company and the high-tech nature of the divested subsidiary have a significant combined influence on the likelihood of acquirers including management in the transaction. Model 2 and Model 3 focus on subsamples where the subsidiary is in high-tech industries and non-high-tech industries, respectively. The results indicate that in high-tech industries, listed companies are more likely to have acquirers including management compared to unlisted companies, regardless of whether the divested

unit is in high-tech or non-high-tech industries. Model 4 and Model 5 focus on

Table 7-7：Probit Model of H2B

Equity Carve-out probit model	(1)	（2）	（3）	（4）
Listed_dummy	-2.220***	-2.355***	-2.361***	-1.951***
	(0.126)	(0.171)	(0.173)	(0.196)
Hi-tech		-0.362	0.118	0.539
		(0.247)	(0.447)	(0.450)
Deal value US$		-0.057	-0.062	-0.010
		(0.050)	(0.053)	(0.042)
Industry FE	No	No	Yes	Yes
Region FE	No	No	No	Yes
Observations	730	441	441	441

subsamples where the parent companies are listed and unlisted, respectively. Model 4 shows that whether the divested unit is in high-tech industries has no effect on the probability of acquirers including management. Model 5 shows that in unlisted parent companies, if the divested unit is in high-tech industries, the likelihood of the acquirer including management is higher.

Table 7-8: Probit Model of H3A

Management holding shares	(1)	（2）	（3）	（4）	(5)
Probit model	All Sample	hitech=1	hitech=0	listed=1	listed=0
Listed_dummy	0.531***	0.495***	0.543***		
	(0.035)	(0.068)	(0.041)		
Hi-tech	0.279***			0.167	0.511***
	(0.078)			(0.095)	(0.136)
Deal value US$	0.022	0.058	0.000	0.101**	-0.413*
	(0.021)	(0.035)	(0.036)	(0.033)	(0.201)
Industry FE	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes
Observations	34572	6392	28180	18565	16007

Table 7-9: Probit Model of H3B

Management holding shares probit model	(1) All Sample	（2） hitech=1	（3） hitech=0	（4） gov=1	(5) gov=0
Gov_dummy	-0.232*	-0.066	-0.278**		
	(0.092)	(0.194)	(0.106)		
Hitech	0.501***			0.483	0.498***
	(0.136)			(0.408)	(0.144)
Deal value US$	-0.345	-2.691	-0.199	-0.229	-0.401
	(0.198)	(1.387)	(0.182)	(0.297)	(0.253)
Industry FE	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes
Observations	16007	2734	13273	3250	12532

Table 7-9 examines hypothesis 3B and presents the findings of five models in this analysis. Model 1 suggests that the listed status of the parent company and the ownership nature of the parent companies have a significant combined influence on the likelihood of acquirers including management in the transaction. Specifically, state-owned parents are significantly less likely than private parents to have acquirers that include management. Additionally, when the divested unit is in high-tech industries, the probability of acquirers including management is significantly

higher.

Model 2 and Model 3 focus on subsamples where the subsidiary is in high-tech industries and non-high-tech industries, respectively. Model 2 indicates that in high-tech industries, whether the parent is state-owned or not has no effect on the probability. However, Model 3 suggests that in non-high-tech industries, state-owned companies are significantly less likely than private companies to have acquirers including management.

Model 4 and Model 5 focus on subsamples where the parent companies are state-owned and privately-owned, respectively. Model 4 shows that in state-owned companies, whether the subsidiary is high-tech or not has no effect on the probability of acquirers including management. On the other hand, Model 5 shows that in private companies, if the divested unit is in high-tech industries, the likelihood of the acquirer including management is higher.

7.5 Subsample Analysis

The data used in this analysis comes from the CSMAR database and SDC. The sample consists of 5,693 listed companies that underwent divestiture and spin-off between 1992 and 2022. Of these companies, 77 were acquired by parties that included management, while 5,616 were acquired by parties that did not include management.

The variables examined include the ownership nature of the actual controllers of the parent companies (state-owned vs. non-state-owned), ownership concentration fund ownership percentage, net fixed assets, number of employees,

and the proportion of funds held by major shareholders. The purpose of this analysis is to explore the relationship between ownership concentration and the likelihood of acquiring parties including management in the divestiture of listed companies. This is based on the previous hypothesis that listed companies are more likely to delegate authority in divestiture due to their more dispersed equity ownership.

Most companies in the sample have fund ownership percentages below 10%, and there is not a significant difference in fund ownership percentages between state-controlled and non-state-controlled companies (Figure 7-3). State-controlled companies have a higher average shareholder concentration than non-state-controlled companies (Figure 7-4).

Figure 7-3 The Fund Holding Share of State-controlled versus Non-state-controlled Companies

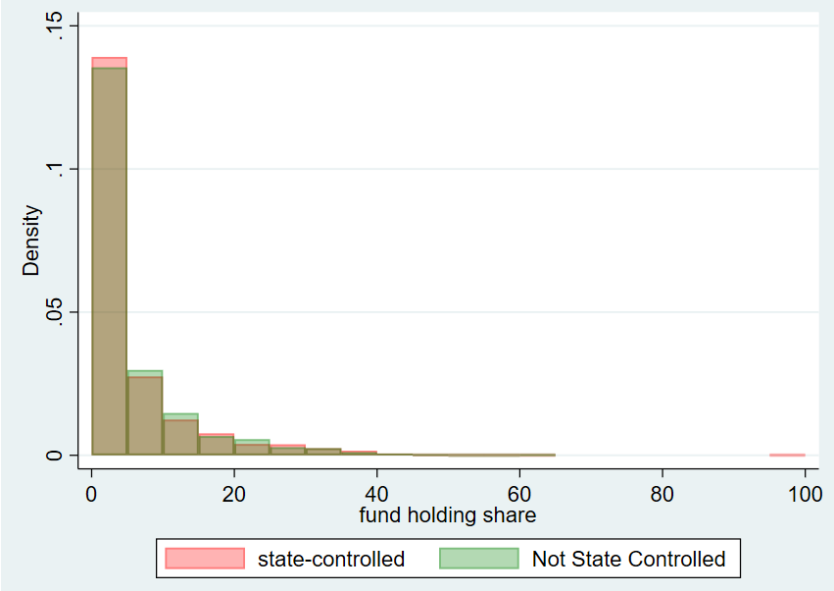
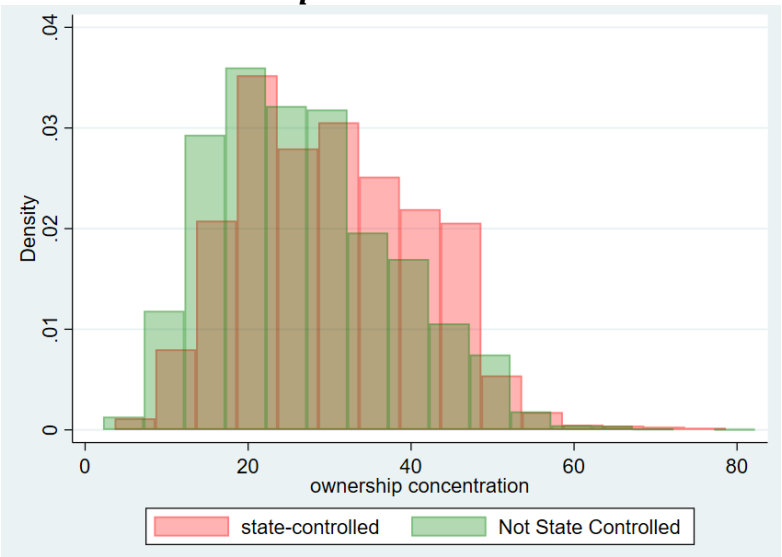


Figure 7-4: The Ownership Concentration of State-controlled versus Non-state-controlled Companies



The companies acquired by parties that included management have higher fund ownership percentages compared to the companies acquired by parties that did not include management (Figure 7-5). The companies acquired by parties that included management have higher ownership concentration compared to the companies acquired by parties that did not include management. (Figure 7-6)

Figure 7-5: Fund Holding Share of Divestitures with Acquirors that Include Management versus Divestures with Acquirors not including management.

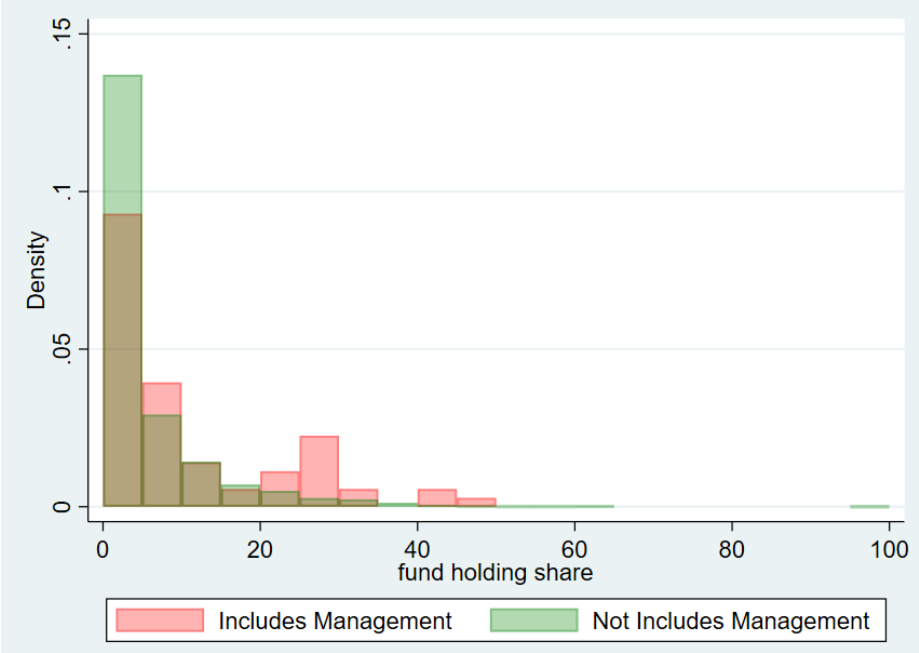
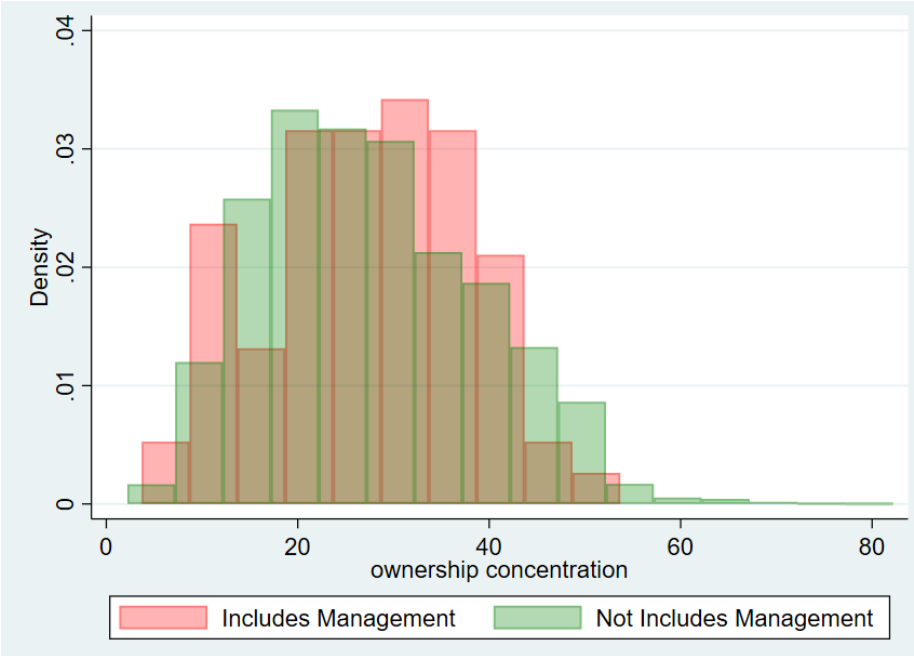


Figure 7-6: Ownership Concentration of Divestitures with Acquirors that Include Management versus Divestures with Acquirors not including management.



We conducted a probit analysis to explore the factors affecting the likelihood of companies being acquired by parties that include management after being divested. The results are presented in Table 7-10. Model 1 indicates that there is no significant relationship between state-ownership, ownership concentration, and the likelihood of management being involved in the acquiring parties, for all listed companies. However, the fund ownership percentage is significantly and positively related to the likelihood of management being involved. Model 2 shows that for listed state-controlled companies, the probability of management being involved in the acquiring parties is significantly and positively related to the fund ownership percentage, and significantly and positively related to divesting subsidiaries in high-tech industries. On the other hand, it is significantly and negatively related to ownership concentration. In Model 3, for listed non-state-controlled companies, the fund ownership percentage is significantly and positively related to the likelihood of management being involved in the acquiring parties, but there is no significant relationship with ownership concentration or whether the divested unit is in the high-tech industry.

Table 7-10: The Factors Affecting whether the Acquirors include Management

Management holding shares	(1) All sample	（2） Listed state-controlle	（3） Listed private-controlled
State-owned dummy	-0.126 (0.115)		
Fund holding share	0.019*** (0.004)	0.019** (0.007)	0.017** (0.005)
Ownership concentration	-0.676 (0.783)	-3.427* (1.573)	-0.033 (0.846)
Hi-tech_dummy	0.232* (0.111)	0.487** (0.178)	0.142 (0.126)
Parent_age	-0.017 (0.009)	-0.018 (0.014)	-0.004 (0.010)
Fix-Asset net	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
No of Management	0.024 (0.019)	0.043 (0.031)	0.026 (0.019)
No of Employee	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Observations	4592	1783	3145

7.6 Conclusion

In the previous sample test, we found that the concentration of shareholders decreased in listed companies compared to non-listed companies, which led to a greater tendency for listed companies to delegate authority during divestiture. However, in this test, focusing on listed companies, we discovered that shareholder concentration does not significantly affect whether management holds shares during divestiture.

In this test, we found that fund ownership significantly impacts whether management holds shares during divestiture. This could be because fund ownership represents the collective interests of individual investors and can act as a counterbalance to large shareholders. Therefore, it is more likely for funds to select management as their representative, stimulating their motivation and aligning their interests with those of the shareholders.

8 Discussion and Policy Implications

The 'big company disease' is a common issue that large companies face as they expand. However, the manifestation of this issue differs between western and emerging markets. In western markets, 'big company problems' are often related to concerns about inefficient capital markets and agency problems in management. As a company grows, it may experience difficulties in valuation due to complex and misfocused business lines, challenges in acquiring new capital resources due to

diversified business lines, and low management efficiency due to limited incentives for management. Divestitures can be an effective way to address these issues by simplifying the company's structure and making it easier for investors to understand its fundamental value. Furthermore, divestitures can provide a strong incentive for management by closely associating performance with rewards. In Western markets, management's ability to acquire capital in the financial market is often a key measure of their performance and career success. Divestitures can provide an opportunity for management to demonstrate their ability to create value, which can lead to increased incentives and rewards.

In emerging markets, however, the equity market is often less developed, and companies rely more on internal or debt financing. This means that they may receive less supervision and incentives from the equity markets, making divestitures less likely. Moreover, state-owned and private business groups are still the main form of large companies in emerging markets, even if they become listed. As a result, these companies may be more reluctant to divest and less likely to receive incentives from the equity market to address 'big company disease' symptoms.

In our first study, we investigated the motivations behind divestitures in listed companies in the US. Using a dataset of divestitures from 2000 to 2022, we employed probit regression models to analyze the factors influencing divestiture decisions. We examined various hypotheses, including performance, management efficiency, financial constraints, and regulatory requirements. Our findings shed light on how listed companies in the US respond to the equity market when making

divestiture decisions and undertaking the necessary trimming of their operations.

In our second study, we conducted three case studies to explore the motivations of Chinese companies when it comes to divestitures. Compared to Western companies, Chinese large companies tend to receive fewer incentives from the equity market, particularly if they are not listed. However, the competitive nature of the industry plays a significant role in their decision-making process. Chinese companies share similar concerns with their Western counterparts in terms of seizing new opportunities. In cases such as Alibaba and Huadong, these companies considered divestitures as competition intensified. In fast-changing high-tech industries, spin-offs can provide a way to access new opportunities, while management incentives become crucial. The case of Cheung Kong's divestitures illustrates the need for giant family businesses to streamline their operations, enhance valuation, attract professional managers, and manage risks through restructuring.

In our third study, we focused on examining the divestiture strategies employed by Asian companies. We observed that Asian large companies are generally hesitant to divest unless compelled to do so, given the numerous advantages associated with maintaining their size. In the high-tech industry, however, divestitures are more likely, but companies tend to use divestiture tools that enable them to maintain some level of control over the divested assets.

We conducted a comparison between listed and unlisted companies to analyze the divestiture tools employed. We discovered that listed companies, which often have more dispersed ownership compared to unlisted companies, are more

inclined to respond to market dynamics by undergoing divestitures. These companies tend to seek third-party investor groups, relinquish control over the divested units, and provide management incentives. Furthermore, we found that private companies, when compared to state-owned enterprises, face greater competition and possess less monopoly power. As a result, private companies are more likely to undergo divestitures for their own benefit. In our analysis of listed companies in China, we also observed that the ownership of shares by funds plays a significant role in management shareholding.

In emerging markets, the symptoms of big company disease are often prominent. It is crucial to motivate companies to undertake trimming jobs and restructure. However, being a big company in emerging markets has many advantages in acquiring capital and talent, which can make companies reluctant to divest. State-controlled and privately controlled big companies also have little incentive to divest, and they often fill institutional voids in the business environment.

The policy implications of this paper are that a developed equity market is essential for positive strategic divestitures. The process of going public can lead to better corporate governance practices, enhanced internal control systems, streamlined business operations, improved public disclosure mechanisms, and better management incentive systems. Going public requires companies to comply with regulatory requirements and adhere to higher standards of corporate governance, including establishing a board of directors with independent members, ensuring transparency in decision-making processes, and implementing effective

checks and balances. These practices promote accountability, protect minority shareholder interests, and enhance the overall governance framework of the company. As part of the IPO process, companies often restructure their management incentive systems to align the interests of executives with those of shareholders, which may involve implementing equity-based compensation plans, performance-based bonuses, or long-term incentive programs.

Our study also revealed that private companies are more inclined to divest and offer greater management incentives in response to changing market conditions. In China, where state-owned shares dominate, it is essential to introduce private capital into state-owned companies to incentivize employees and improve efficiency. At the policy level, promoting the development of mixed ownership aims to leverage the comparative advantages of state-owned and non-state-owned capital to achieve synergies. Divestitures of state-owned companies can introduce non-state-owned capital, which is a positive step towards achieving this goal.

This study provides valuable empirical evidence and references for policy makers. It highlights that state-owned enterprises often encounter greater challenges in organizational restructuring compared to private enterprises. As a result, they have a lower probability of divestment due to factors such as information asymmetry, reluctance to delegate authority during divestment and restructuring processes, and ineffective incentives for management.

To address the "big company syndrome," it is crucial for the government to take specific actions. This includes building a mature soft financial market infrastructure, promoting diverse forms of divestment and restructuring, deepening

mixed ownership reforms, introducing capital with different property rights attributes, implementing modern corporate governance systems through listing, and actively encouraging fund companies and other institutional investors to hold shares in listed companies. Furthermore, empowering the minority investors with increased voice and proposal rights at shareholder meetings can contribute to better corporate governance practices and decision-making processes. These measures collectively aim to enhance the efficiency and competitiveness of state-owned enterprises and mitigate the challenges associated with the "big company disease".

References

Ahn, S., & Denis, D. J. (2004). Internal capital markets and investment policy: evidence from corporate spinoffs. *Journal of Financial Economics*, *71*(3), 489–516. https://doi.org/10.1016/S0304-405X(03)00165-X

Allen, J. W., & Phillips, G. M. (2000). Corporate equity ownership, strategic alliances, and product market relationships. *The Journal of Finance*, *55*(6), 2791–2815. https://doi.org/10.1111/0022-1082.00307

Anslinger, P. L., Klepper, S. J., & Subramaniam, S. (1999). Breaking up is good to do. *The McKinsey Quarterly*(1), 16.

Aquila, F. (2015). Key issues when considering a spin-off. *Practical Law*(June), 20–27.

Aron, D. J. (1991). Using the capital market as a monitor: Corporate spinoffs in an agency framework. *The Rand Journal of Economics*, 505-518.

Bae, K. H., Kang, J. K., & Kim, J. M. (2002). Tunneling or value added? Evidence from mergers by Korean business groups. *The journal of finance*, 57(6), 2695-2740.

Bai, C.-E., Lu, J., & Tao, Z. (2006). The multitask theory of state enterprise reform: Empirical evidence from China. *American Economic Review*, *96*(2),353-357.

Barontini, R., & Caprio, L. (2005). The Effect of Family Control on Firm Value and Performance. Evidence from Continental Europe, European Corporate

Goverance Institute (No. 88). Finance Working Paper.

Berger, P. G., & Ofek, E. (1995). Diversification's Effect on Firm Value. *Journal of Financial Economics.*

Bertrand, M., Mehta, P., & Mullainathan, S. (2002). Ferreting out tunneling: An application to Indian business groups. *The quarterly journal of economics,* 117(1), 121-148.

Bergh, D. D., Lim, E. (2008). Learning how to restructure: absorptive capacity and improvisational views of restructuring actions and performance. *Strategic Management Journal*, *29*(6), 593-616.

Bergh, D. D., & Lim, E. N. K. (2008). Learning how to restructure: absorptive capacity and improvisational views of restructuring actions and performance. *Strategic Management Journal*, *29*(6), 593-616.

Berle, A. A. (1932). For whom corporate managers are trustees: a note. *Harvard law review*, *45*(8), 1365-1372.

Berry, H. (2010). Why do firms divest? *Organization science*, *21*(2), 380–396. https://doi.org/10.1287/orsc.1090.0444

Boreiko, D., & Murgia, M. (2016, 2016). Corporate governance and restructuring through spin-offs: European evidence.

Burch, T. R., & Nanda, V. (2003). Divisional diversity and the conglomerate discount: evidence from spinoffs. *Journal of Financial Economics*, *70*(1), 69–98. https://doi.org/10.1016/S0304-405X(03)00142-9

Cain, M. D., McKeon, S. B., & Solomon, S. D. (2017). Do takeover laws matter? Evidence from five decades of hostile takeovers. *Journal of Financial*

Economics, *124*(3), 464–485. https://doi.org/10.1016/j.jfineco.2017.04.003

Carnahan, S., Agarwal, R., & Campbell, B. A. . (2012). Heterogeneity inturnover: The effect of relative compensation dispersion of firms on the mobility and entrepreneurship of extreme performers. . *Strategic Management Journal*, *33*(12), 1411-1430.

Carroll, T. N., & Karim, S. (2011). A framework of organisations as dynamic structures. *Internat. J. Strategic Change Management*, *3*(3), 230-246.

Chemmanur, T. J., & Yan, A. (2004). A theory of corporate spin-offs. Journal of Financial Economics, 72(2), 259–290. https://doi.org/10.1016/j.jfineco.2003.05.002

Claessens, S., Djankov, S., & Lang, L. H. (2000). The separation of ownership and control in East Asian corporations. *Journal of Financial Economics*, *58*(1-2), 81-112.

Comment, R., & Jarrell, G.A. . (1995). Corporate focus and stock returns. . *Journal of Financial Economics.*, *37*(1), 67-87.

Corredor, S., & Mahoney, J. T. (2021). Multi-business Firms' Corporate Renewal Decisions: Divestiture Governance Mode Choice of Corporate Spin-Offs and Equity Carve-Outs. *Strategic Management Review*, *2*(2), 235-280.

Daley, L., Mehrotra, V., & Sivakumar, R. . (1997). Corporate focus and value creation evidence from spinoffs. . *Journal of Financial Economics 45*(2), 257-281.

Desai, H., &Jain, P.C. (1999). Firm performance and focus: long-run stock market performance following spinoffs. . *Journal of Financial Economics 54*(1), 75-

101.

Dranikoff, L., Koller, T., & Schneider, A. . (2002). Divestiture: strategy's missing link. *Harvard business review*, *80*(5), 74-83.

Duhaime, I. M., & Grant, J.H. (1984). Factors influencing divestment decision-making: Evidence from a field study. . *Strategic Management Journal*, *5*(4), 301-318.

Duhaime, I. M., & Schwenk, C. R. (1985). Conjectures on cognitive simplification in acquisition and divestment decision making. *Academy of Management Review*, *10*, 287-295.

Faleye, O., Mehrotra, V., & Morck, R. (2006). When labor has a voice in corporate governance. *Journal of financial and quantitative analysis*, *41*(3), 489-510.

Fauver, L., Houston, J., & Naranjo, A. (2003). Capital market development, international integration, legal systems, and the value of corporate diversification: A cross-country analysis. *Journal of Financial and Quantitative Analysis,* 38(1), 135-158.

Fan, J. P., & Lang, L. H. (2000). The measurement of relatedness: An application to corporate diversification. *The Journal of Business*, *73*(4), 629-660.

Fee, C. E., Hadlock, C. J., & Thomas, S. (2006). Corporate equity ownership and the governance of product market relationships. *The Journal of Finance*, *61*(3), 1217-1251.

Feldman, E. R. (2014). Legacy divestitures: Motives and implications. . *Organization Science 25*(3), 815-832.

Feldman, E. R., Gartenberg,C., & Wulf, J. (2018). Pay inequality and corporate

divestitures. . *Strategic Management Journal*, *39*(11), 2829-2858.

Feldman, E. R. (Ed.). (2021). *Restructuring and Divestitures.* Oxford University Press.

Feldman, E. R. (2022). Divestitures: Creating Value Through Strategy, Structure, and Implementation. McGraw Hill.

Feng, Y., Nandy, D. K., & Tian, Y. S. (2015). Executive compensation and the corporate spin-off decision. *Journal of Economics and Business*, *77*, 94–117. https://doi.org/10.1016/j.jeconbus.2014.09.003

Frank, K. E., & Harden, J. W. (2001). Corporate restructurings: A comparison of equity carve-outs and spin-offs. *Journal of Business Finance & Accounting*, *28*(3-4), 503-529.

Gibbs, P. A. (1993). Determinants of corporate restructuring: The relative importance of corporate governance, takeover threat, and free cash flow. *Strategic Management Journal*, *14*(S1), 51–68.

Gilson, S. C., Healy, P.M., Noe, C.F., & Palepu, K.G. (2001). Analyst specialization and conglomerate stock breakups. *Journal of Accounting Research 39*(3), 565-582. Gino, F., & Pierce, L. (2009). Dishonesty in the name of equity. . *Psychological Science*, *20*(9), 1153– 1160.

Gino, F., & Pierce, L. (2010). Lying to level the playing field: Why people may dishonestly help or hurt others to create equity. *Journal of Business Ethics*, *95*, 89– 103.

Glover, S. I. (2021). Business separation transactions: Spin-offs, subsidiary IPOs

and tracking stock. Law Journal Press.

Grealis, A. R. (2022). Anticompetitive corporate spin-offs. *U. Miami Bus. L. Rev.*, *31*, 196.

Greve, H. R. (1998). Performance, aspirations, and risky organizational change. . Administrative Science Quarterly, 43(1), 58–86.

Habib, M. A., Johnsen, D. B., & Naik, N. Y. (1997). Spinoffs and information. *Journal of Financial Intermediation*, *6*(2), 153–176.

Hall, B. J., & Liebman, J. B. (1998). Are CEOs really paid like bureaucrats? *The Quarterly Journal of Economics*, *113*(3), 653–691.

Harrigan, K. R. (1980). Strategy formulation in declining industries. . *Academy of Management Review 5*(4), 599-604.

Hart, O., & Moore, J. (1990). Property rights and the nature of the firm. *Journal of political economy*, *98*(6), 1119–1158. https://doi.org/10.1086/261729

Hassard, J., Morris, J., Sheehan, J., & Yuxin, X. (2010). China's state-owned enterprises: economic reform and organizational restructuring. *Journal of Organizational Change Management*.

Hayward, M. L. A., & Hambrick, D. C. (1997). Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. . *Administrative Science Quarterly*, *42*, 103-127.

Hitt, M. A., Harrison, J. S., & Ireland, R. D. . (2001). *Mergers and acquisitions: A guide to creating value for stakeholders.* . Oxford University Press.

Hoskisson, R. E., & Turk, T.A. . (1990). Corporate restructuring: Governance and control limits of the internal capital market. *Academy of Management Review*,

15(3), 459-477.

Hoskisson, R. E., , & Hitt, M.A. . (1994). *Downscoping: How to Tame the Diversified Firm.* . Oxford University Press.

Jain, B. A., Kini, O., & Shenoy, J. (2011). Vertical divestitures through equity carve-outs and spin-offs: A product markets perspective. *Journal of Financial Economics*, *100*(3), 594–615. https://doi.org/10.1016/j.jfineco.2011.01.001

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, *48*(3), 831-880.

John, K., Lang, L. H., & Netter, J. (1992). The voluntary restructuring of large firms in response to performance decline. *The Journal of Finance*, *47*(3), 891–917. https://doi.org/10.1111/j.1540-6261.1992.tb03999.x

John, K., & Ofek, E. (1995). Asset sales and increase in focus. *Journal of Financial Economics*, *37*(1), 105–126. https://doi.org/10.1016/0304-405X(94)00794-2

Kacperczyk, A., & Balachandran, C. . (2018). Vertical and horizontal comparisons and mobility outcomes: Evidence from the Swedish microdata. . *Organization science*, *29*(1), 17– 38.

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

Lang, L., Poulsen, A., & Stulz, R. (1995). Asset sales, firm performance, and the agency costs of managerial discretion. *Journal of Financial Economics*, *37*(1), 3–37.

Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, *14*, 319-340.

Lin, Y., & Li, Z. (2004). Policy burden, moral hazard and soft budget constraint. *Economic Research Journal*, *2*, 17-27.

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Maksimovic, V., & Phillips, G. (2001). The market for corporate assets: Who engages in mergers and asset sales and are there efficiency gains? *The Journal of Finance*, *56*(6), 2019–2065. https://doi.org/10.1111/0022-1082.00398

Maksimovic, V., & Phillips, G. (2002). Do conglomerate firms allocate resources inefficiently across industries? Theory and evidence. *The Journal of Finance*, *57*(2), 721–767. https://doi.org/10.1111/1540-6261.00440

Maksimovic, V., & Phillips, G. (2008). The industry life cycle, acquisitions and investment: does firm organization matter? *The Journal of Finance*, *63*(2), 673-708.

Markides, C. C. (1992). Consequences of corporate refocusing: Ex ante evidence. . *Academy of Management Journal 35*(2), 398-412.

Markides, C. C. (1995). Diversification, restructuring and economic performance. . *Strategic Management Journal*, *16*(2), 101-118.

Morck, R., Wolfenzon, D., & Yeung, B. (2005). Corporate governance, economic entrenchment, and growth. *Journal of economic literature*, *43*(3), 655-720.

Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change.* . Harvard University Press.

Nickerson, J. A., & Zenger, T. R. . (2008). Envy, comparison costs, and the economic theory of the firm. *Strategic Management Journal*, *29*(13), 1429–1450. Nohria, N., Mayo, A. J., & Benson, M. (2007). General Electric's 20th

century CEOs. *Harvard Business School Case*, 9-406.

Öberg, C. (2021). Spin-in and spin-out for growth–On the acquisition and divestiture of high-tech firms. *Journal of Organizational Change Management*, *34*(3), 653-671.

Obloj, T., & Zenger, T. (2017). Incentives, social comparison costs, and the proximity of envy's object. *Organization science*.

Ocasio, W. (1997). Toward an attention-based view of the firm. *Strategic Management Journal*, *18*, 187-206.

Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Business Review 57*(2), 137-145.

Porter, M. E. (1987). From Competitive Advantage to Corporate Strategy. . *Harvard business review*, *65*(3), 43-59.

Prahalad, C. K., & Bettis, R. . (1986). The dominant logic: A new linkage between diversity and performance. . *Strategic Management Journal*, *7*, 485-501.

Rajan, R., Servaes, H., & Zingales, L. (2000). The cost of diversity: The diversification discount and inefficient investment. *The Journal of Finance*, *55*(1), 35–80. https://doi.org/10.1111/0022-1082.00200

Rosenfeld, J. D. (1984). Additional evidence on the relation between divestiture announcements and shareholder wealth. *The Journal of Finance*, *39*(5), 1437-1448. Rubera, G., & Tellis, G. J. (2014). Spinoffs versus buyouts: profitability of alternate routes for commercializing innovations. *Strategic Management Journal*, *35*(13), 2043-2052.

Scharfstein, D. S., & Stein, J. C. (2000). The dark side of internal capital markets:

Divisional rent-seeking and inefficient investment. *The Journal of Finance*, *55*(6), 2537–2564. https://doi.org/10.1111/0022-1082.00299

Semadeni, M., & Cannella Jr, A. A. (2011). Examining the performance effects of post spin-off links to parent firms: should the apron strings be cut? *Strategic Management Journal*, *32*(10), 1083-1098.

Shaw, J. D., Gupta, N., & Delery, J. E. . (2002). Pay dispersion and workforce performance: Moderating effects of incentives and interdependence. *Strategic Management Journal*, *23*(6), 491– 512.

Shimizu, K., &Hitt, M.A. . (2005). What constrains or facilitates divestitures of formerly acquired firms? The effects of organizational inertia. *Journal of Management 31*(1), 50-72.

Todd, D., Feldman, E.R., Pernsteiner, T., Shapiro, E., & Sarma-Rupavtarm, R. . (2018). *Can Your Valuation Be Improved?* KPMG LLP. Retrieved April 20 from https://advisory.kpmg.us/articles/2021/can-your-valuation-be-improved.html

Vidal, E., & Mitchell, W. (2015). Adding by subtracting: The relationship between performance feedback and resource reconfiguration through divestitures. . *Organization science*, *26*(4), 1101- 1118.

Villalonga, B., McGahan, A.M. (2005). The choice among acquisitions, alliances, and divestitures. . *Strategic Management Journal*, *26*(13), 1183-1208.

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of management*, *18*(2), 295-320.

Zhang, W. (1998). China's SOE reform: A corporate governance perspective. *Institute of Business Research Working Paper*(1998E04).

Zuckerman, E. W. (1999). The categorical imperative: Securities analysts and the illegitimacy discount. *American Journal of Sociology 104*(5), 1398-1438.

吴敬琏. (2004). 经济学家, 经济学与中国改革. *经济研究*, *2*, 8-16.