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Privatization of State-Owned Enterprises in Transition Economies: The Case of Vietnam

Author: **Nguyen Minh Quang**

Thesis Supervisor(s): **Maria Angeles Pons Blais; Pilar Beneito López**

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Introduction

Much like the nationalization wave in the late 19th century, the wave of privatization in the late 20th century was a pragmatic response to specific economic and historical circumstances. Early privatization efforts in countries like Chile in the mid-1970s and Britain in the early 1980s were seen as a means to address the inefficiencies of the public sector and reduce the strain on budgets due to overburdened welfare systems (World Bank, 1995; Toninelli, 2000, p. 21; Megginson, 2005, p. 31; Kikeri, 2022). Since then, privatization policies have been used widely by countries around the globe and become central to structural and liberalization reforms across developed, developing, and transition economies (Arocena & Oliveros, 2012; Megginson & Netter, 2001; Sheshinski & Lopez-Calva, 2003; Summers & Pritchett, 1993).[1] From the United Kingdom and the United States to post-Soviet states and emerging economies in Asia and Africa, privatization has fundamentally transformed the roles of the state and the market. Its appeal lies not only in its ability to improve enterprise efficiency but also in its potential to bring rapid economic growth, technological progress, and enhanced competitiveness through innovation.

Among the countries implementing privatization, perhaps nowhere is the study of privatization as significant as in transition economies. Studying privatization in the context of the transition from central planning to a market economy is important not just because this transition has affected about one-third of the world's population, but also because, in transition countries, privatization represents an opportunity for a profound shift in resource control and the redesign of dominant ownership structures (King, 2003; Polevoy, 1998). Since this transformation hadn't occurred before, and in a context where a system

[1] On a global level, privatization also gained momentum from technological advancements and growing concerns about unfair competition from SOEs in the context of globalization.

of law that protects private property rights as well as liquidity in both capital and financial markets was not-yet-developed, neither economic experts nor policymakers knew exactly how to design effective market reforms, let alone implement privatization (Ellerman, 2003; Godoy & Stiglitz, 2005; Jelic et al., 2003; Marangos, 2003). Studying privatization in this context, therefore, offers valuable empirical insights into how firms in these economies survive and adapt to a completely new business environment, and, more importantly, how institutional contexts in the past shape current economic outcomes (see, e.g., Acemoglu et al., 2001; North, 1992).

In the first two chapters, Chapter 1 Chapter 2, my main goal is to provide readers with essential background knowledge about privatization, particularly for those who may not be well-acquainted with the transition from a centrally planned to a market-oriented economy. In Chapter 1, I will explore the underlying factors that triggered the rise of privatization globally and discuss major economic theories that help explain privatization and its effects. In Chapter 2, I will examine the contemporary debate in the transition literature and review empirical studies assessing the impact of privatization on firm performance in transition countries.

Among the transition countries, the history of privatization in Vietnam is rather 'unique' in two main aspects. *Firstly*, it is the unique historical contexts in which privatization in Vietnam took shape and evolved. After World War II, Vietnam was one of the countries that suffered most from wars.[2] Under this condition, the very first SOEs were established and developed to serve the war effort. However, due to heavy bombing and widespread logistical disruptions, in order to survive, these SOEs had to be highly self-reliant and used local resources as input for production rather than relying entirely on state subsidies. This condition brought along a significant degree of autonomy for these SOEs in their daily operations. Eventually, free markets emerged right within the central planning system, and SOEs increasingly engaged in these informal sectors. Due to the impact of wars, SOEs' involvement in commercial activities in Vietnam went far beyond similar patterns observed in China and former Soviet countries (see, e.g., P. Dang and Beresford, 1998).

[2]These included the first Indochina War (1946–1954), the second Indochina war (1955–1975), and the post-war U.S. economic embargo (1975–1994).

Secondly, the history of Vietnam's privatization is unique in a sense that it has largely been told through the lens of equitization. Equitization refers to the process of converting state enterprises into joint-stock companies, often resulting in the government retaining a majority stake in the equitized firm (Beeson & Pham, 2012). Privatization, on the other hand, is the transfer of a controlling stake in public enterprises to private investors, so that the new owners can effectively control the firm (Jomo, 2008, p. 201). The limited usage of the term "privatization" is arguably understandable in the case of Vietnam, since the term implies the surrender of state control—an idea that carries significant political and social risks in a country where state ownership is deeply rooted in ideological principles. What is particularly puzzling, however, is that this approach has influenced also research on privatization in Vietnam. Empirical studies mainly focus on analyzing the characteristics of the equitization process (e.g., N. J. Freeman, 1996a; Gainsborough, 2004; H. H. Le, 2017), or the performance of SOEs post-equitization (e.g., T. Nguyen, 2021; D. C. Pham and Nguyen, 2019; G. Tran, 2008; D. L. Truong et al., 2006; D. L. Truong and Tran, 2016; Van Tan and Trung, 2019; T. Q. Vo, 2012).[3] Meanwhile, research on privatization and its short and long-term impacts on market formation and economic outcomes has received far less attention.[4] As a result, the history of privatization in Vietnam has remained largely "hidden" in the dark, lacking systematic academic scrutiny. This huge gap in research not only obscures a critical aspect of Vietnam's economic transition but also leaves important questions about the broader impacts of privatization in Vietnam largely unanswered.

Addressing this research gap serves as the primary motivation for my dissertation. In Chapters 3, Chapter 4, and Chapter 5, I will address different aspects of privatization process in Vietnam. Specifically, in Chapter 3, I will place privatization in Vietnam within the broader context of SOE reforms and the mainstream equitization program. In Chapter 4, I will analyze the impact

[3]It is important to note here that, even though some studies use the word "privatization" for international publication purpose, they still refer to equitization in the main text (see, e.g., D. C. Pham and Nguyen, 2019; G. Tran, 2008; D. L. Truong et al., 2006).

[4]The prioritization of research on equitization is not only due to the limited availability of primary data, since firms are often reluctant to participate in surveys about privatization but more willing to respond to questions about equitization, but also because of the relatively easier access to secondary data on equitization. For example, data on equitization is often publicly available on government websites (see, e.g., http://m.doimoidoanhnghiep.chinhphu.vn/solieu/). Meanwhile, official secondary data on privatization is almost non-existent.

of privatization on firm performance in Vietnam, and in Chapter 5, the final chapter of my thesis, I will explore the relationship between privatization and market structures in Vietnam.

To provide a more complete understanding of the privatization process in Vietnam, these empirical chapters rely on the most comprehensive firm-level dataset available—General Statistical Office of Vietnam's Enterprise Surveys from 2000 to 2018—making it the most data-intensive analysis of privatization in Vietnam to date. By employing this rich, longitudinal dataset of enterprise-level data, my dissertation provides unprecedented data-driven insights into how privatization, along with its implementation strategies, has shaped economic efficiency at the micro-level and market concentration at the industry level, offering a deeper understanding of Vietnam's economic transformation towards market-oriented economy.

In what follows, I provide a brief summary of my empirical chapters, i.e., Chapter 3, 4, and 5.

In Chapter 3 of my thesis, I explore the history of privatization process in Vietnam, framed by its historical economic structures and the crucial role of SOEs. By tracing the legacy of central planning and outlining the key stages of economic transitions, I aim to explain how and why the pace of reforms evolved over time, highlighting the economic, institutional, and external factors that shaped its trajectory.

Drawing from primary and secondary data sources, I provide evidence that the most prominent characteristic of SOE reforms and the equitization process in Vietnam is their high susceptibility to changes in economic, institutional, and external factors. These elements have shaped the pace and intensity of reforms, with periods of accelerated equitization often driven by favorable economic conditions and international commitments, while slowdowns have coincided with financial crises or shifts in policy priorities in response to anticipated competitive pressures. In contrast, privatization in Vietnam progressed quite steadily and did not seem to be affected by exogenous factors. This is evident in the two definitions of privatization that I use in this chapter: the relatively stable number of enterprises being privatized annually, and a gradual increase in the share of the non-SOE sector in the economy across key indicators—namely, revenues,

assets, labor, and tax contributions to the state budget. Under both definitions, Vietnamese privatization could be characterized by gradual and steady progress.

In Chapter 4 of my thesis, to differentiate from the equitization-focused analyses conducted in most prior studies, I analyze the privatization process in Vietnam by considering the extent of "state control." Specifically, I distinguish between firms with more than 50% state ownership and those with less than 50%, acknowledging that firms operating under different levels of state control exhibit significant variations in policy treatment, business objectives, and management practices, all of which can impact their performance (Y. Chen et al., 2021; Pan et al., 2022).

Applying a staggered difference-in-differences methodology, I examine the causal impact of privatization on firm performance using a panel sample consisting of 770 privatized SOEs and 2,154 non-privatized SOEs in Vietnam. I find that the privatization of Vietnamese firms led to significant increases in measures of profitability and sales per worker, coupled with a reduction in leverage and employment. In particular, privatization led to an increase of 5% in sales per worker, a 23-27% increase in profitability measures (ROA and ROS), an 8% decrease in debt ratio, and a 5% decline in employment. In addition, my findings show that there is considerable heterogeneity across firm size and industries. I find that the effect of privatization was slightly weaker for large firms than for small firms and that it generally took a longer time for a change to be realized in large firms. Moreover, privatization did not have a significant effect on firms operating in strategic industries. Finally, I find that performance improvement was largely absent among services SOEs, which is an empirically novel discovery in the sense that earlier studies almost always find that efficiency improvements were visible in service firms (see, e.g., Y. Chen et al., 2021; Harper, 2002).

While all three empirical chapters (Chapter 3, 4, and 5) aim to fill the research gap concerning the lack of systematic studies on privatization in Vietnam, Chapter 5 specifically seeks to contribute to a broader research area: the relationship between privatization and market concentration. Although privatization is often studied for its effects on efficiency, productivity, and economic growth, its specific impact on market concentration—like changes in industry structure or the dominance of particular firms—has not been comprehensively

examined. More importantly, in Chapter 5, I investigate how the speed of privatization moderates the relationship between privatization and market concentration. To the best of my knowledge, this is an area that has yet to be systematically explored in academic research. This chapter, therefore, contributes not only to the understanding of Vietnam's privatization but also to the broader academic literature on the impacts of privatization.

To address these research gaps, the purpose of Chapter 5 is to analyze the relationship between privatization and industry concentration and to examine how the speed of privatization influences this relationship. By focusing on 4-digit ISIC industries in Vietnam (VSIC, 2007), I minimize the influence of differences in economic settings, political systems, privatization methods, and institutional factors that can significantly shape economic outcomes. By defining privatization as the proportion of output in an industry that is produced by firms owned and/or controlled by the non-state firms, I explore how privatization propensity is associated with changes in market structures. Additionally, by defining privatization velocity as the slope coefficient obtained from regressing privatization propensity on year, and as the number of years it takes for an industry to get almost full privatization, I test the hypothesis that privatization speed moderates the relationship between privatization propensity and market concentration.

Examining the period from 2006 to 2018, my main findings suggest that privatization is associated with a statistically significant decrease in market concentration at industry level. This relationship holds true for two measures of market concentration I use in this chapter, HHI (Herfindahl-Hirschman Index) and CR4 (Concentration Ratio of the top 4 firms). My results further show that privatization speed has a moderating role on the relationship between concentration and privatization. Specifically, a faster privatization process has a greater effect on reducing industrial concentration, while a slower process would reverse this effect. This finding provides empirical support to the rapid privatization approach, suggesting that quicker privatization might be more effective in creating less concentrated markets.

In general, this dissertation is structured into five chapters. Chapters 1 and 2 provide an overview of the privatization process by examining theoretical frameworks and empirical studies, with a particular focus on transition economies.

Following these two background chapters, Chapters 3, 4, and 5 present empirical research that offers new insights into privatization in Vietnam during its transition from a centrally planned economy to a market-oriented one. At the end of the dissertation, I conclude by summarizing my main findings and discussing the implications of my work for future research.

Chapter 1

Economic theories of privatization

1.1 Introduction

Why did governments around the world decide to privatize in the first place? According to William L. Megginson, the reason for privatizations was "almost always dissatisfaction with the actual performance of state enterprises, coupled with the belief that selling these firms to private investors will significantly improve their performance" (Megginson, 2005, p. 31). While such a belief should ideally be grounded in theory, what is rather interesting is that economic frameworks justifying privatization actually were not developed until the late 1980s.

Indeed, early privatization efforts in countries like Chile and Britain in the 1970s were primarily due to the poor performance of their State-owned Enterprises (SOEs). These countries experimented with the privatization of SOEs as a way to improve economic efficiency and get out of economic recession (World Bank, 1995). Privatization in the late 20th century, just like nationalization in the late 19th century, was adopted as a response to specific needs rather than a well-established economic theory.

After Chile and Britain, privatization policies have been used by many countries around the globe (Arocena & Oliveros, 2012; Megginson & Netter, 2001). Privatization has become central to structural and liberalization reforms across developed, developing, and transition economies (Sheshinski & Lopez-Calva,

2003; Summers & Pritchett, 1993). In fact, it is difficult to name any country that has not engaged in some form of privatization throughout its history. The prevalence of this privatization trend since the 1970s led Yarrow (1999) to ask: "Why, at a particular point in history, have so many diverse economies, with varying institutional frameworks and stages of development, adopted similar policy strategies?"

The purpose of this chapter, in addition to providing an overview of the economic theories on privatization, is to explore certain aspects that may help shed light on this question. Domestically, the high costs and inefficiencies of SOEs caused governments to turn to privatization as a solution (Kikeri, 2022). Additionally, the strain on budgets due to overburdened welfare systems became a significant driver of this shift (Toninelli, 2000, p. 21). On a global level, privatization gained momentum from technological advancements and growing concerns about unfair competition from SOEs in the context of globalization. The combination of these domestic and international factors marked a historic turning point in the operation of the global economy since the 1970s. The rise of neoliberal ideology and the increasing political power of center-right and conservative political parties in many Western countries, exemplified by Thatcherism in the UK and Reaganomics in the US, emphasized free-market principles, deregulation, and the promotion of private enterprise. This shift drove privatization as a key policy solution in these countries. Eventually, privatization has emerged as a defining economic policy of the world since the late 1970s (Wills, 2018), even before economic theories emerged to support it.

As pointed out earlier, it was not until the late 1980s that economic theories of privatization were developed. These theoretical frameworks, rather than simply suggesting that SOEs are inherently inefficient, introduce the conditions in which privatization could be beneficial.[1] Agency theory, for example, maintains that privatization is beneficial when contracts are incomplete, information is asymmetrical, and transaction costs are high (Haskel & Sanchis, 1995; Laffont & Tirole, 1991; Schmidt, 1996; Shapiro & Willig, 1990; Shleifer, 1998). When bureaucrats impose non-economic objectives on firms, privatization can be even

[1]Before the 1980s, the justification for privatization mostly come from the perspective of property rights theory. This theory argues that SOE inefficiency arises from the lack of clearly defined and enforceable property rights, as SOE ownership is typically dispersed among the public (Hart & Moore, 1990).

more beneficial because it reduces political interference (Biais & Perotti, 2002; Boycko et al., 1996; Robinson & Torvik, 2009b; Shleifer & Vishny, 1994).

Given the strong theoretical support for the benefits of privatization, a more controversial issue is how to implement privatization. The appropriate path for privatization depends on the specific goals of the government, which often involve certain trade-offs.

For example, in transition economies undergoing a shift from centrally planned systems to market-oriented structures, political stability and support are critical, especially in the early stages of transformation. In such contexts, mass privatization programs, often accompanied by insider privatization schemes that prioritize workers and management within SOEs, can be an effective strategy. These methods aim to rapidly distribute ownership and foster political acceptance of reforms, helping to build a constituency for privatization. However, this approach often comes at the cost of efficiency, as insiders may lack the necessary expertise, incentives, or resources to manage the newly privatized enterprises effectively. This trade-off has been widely discussed in the literature (Blanchard, 1996; Bortolotti & Siniscalco, 2004; Brada, 1996; Grime & Duke, 1993; King, 2003; Schmidt, 2000; Wright et al., 2002).

In contrast, governments aiming to maximize economic efficiency and optimize the performance of privatized entities often adopt a more deliberate and structured approach. Strategies such as direct sales to strategic investors and pre-privatization restructuring are frequently employed to enhance the competitiveness and financial health of enterprises before their transfer to the private sector. Direct sales allow governments to target buyers with the expertise and capital necessary to transform enterprises into efficient, profitable entities. Pre-privatization restructuring, including debt reduction, operational streamlining, and workforce optimization, further ensures that enterprises are attractive to potential buyers and positioned for long-term success. While these methods often lead to better outcomes in terms of efficiency and performance, they may be slower to implement and politically contentious, particularly in environments with significant resistance to foreign investment or layoffs (Bos, 1996; Bulow & Klemperer, 1996; Cornelli & Li, 1997; Gupta, 2005; Pagano, 1993).

Moreover, the success of any privatization program depends on the insti-

tutional and market conditions, as well as the type of assets being privatized. For instance, privatization will be more effective when robust institutions and regulatory frameworks are already in place. Additionally, favorable economic conditions typically facilitate faster privatization efforts, whereas adverse environments may require a more cautious one (Brada & Ma, 2007; Che, 2009; K. Jiang & Wang, 2012; Kikeri, 2022).[2] Finally, privatizing assets in competitive, less concentrated sectors is more likely to yield successful outcomes than privatization in uncompetitive, highly concentrated areas. Chapter 2 will discuss these issues in more detail.

This chapter is structured as follows. In Section 1.2, I provide an overview of the origins and interpretations of privatization. In Section 1.3, I examine the rise of privatization as a policy within the historical context of ownership debates. In Section 1.4, a comprehensive review of economic theories concerning privatization is provided. In Section 1.5, I offer a review of economic theories related to the methods of privatization. In Section 1.6, I discuss about the sequencing, staging, timing, and pacing privatization. Finally, in Section 1.7, I conclude.

1.2 The Origins and Meaning of Privatization

The term "privatization" officially appeared in the 1961 edition of Webster's Third New International Dictionary of the English Language Unabridged. On page 1805, privatization refers to a policy "to alter the status of business or industry from public to private control of ownership." However, studies by Bel (2006, 2010) trace the English etymology of the term back to "reprivatization," which was initially used in the social sciences to describe economic policies in Germany during the mid-1930s.

During the early 1930s, crucial sectors across Europe (e.g., steel, mining, banking, and urban transportation) were nationalized as a response to the Great Depression (1929-33). In February 1934, an article titled "Zur Neugestaltung des deutschen Nahverkehrs" (*On the New Organization of German Urban Transportation*) appeared in Der Deutsche Volkswirt (*The German Economist*), where

[2]Favorable economic conditions may include, for example, macroeconomic stability, fiscal sustainability, and good governance.

the German term "Reprivatisierung" (*reprivatization*) was used. In the article, Marschner (1934, p. 587) discussed the German National Socialist government's proposal to return urban transportation back to the private sector.[3] In this context, "reprivatization" reflected the National Socialist Party's strategy to denationalize certain sectors of the German economy.

Several academic works have analyzed the economic policies in Germany under the National Socialist Party. One significant contribution was Sweezy (1941)'s work, *The Structure of the Nazi Economy*. This book, based on her PhD dissertation at Radcliffe College in 1939, put forward an argument: the wealthiest industrialists in Germany supported Hitler's rise to power, as his economic policies were favorable to them. Among Hitler's economic policies was a large-scale program by which the government transferred ownership of a number of monopolies to private hands (Sweezy, 1941, pp. 27–28). Writing in English, Sweezy (1941, p. 28) used the term "reprivatization" to describe this program. As Sweezy used a variety of German sources, including Der Deutsche Volkswirt, she might be the first author to coin the term "reprivatization" in the English social sciences literature (Bel, 2006).

At first, the German privatization efforts of the 1930s were aimed at benefiting the wealthiest sectors and strengthening the economic and political power of the elite. Later, a key objective was to stimulate savings, which were beneficial for a war economy that required low levels of private consumption. High savings were believed to be driven by income inequality; thus, privatization allowed the capitalist class to continue accumulating income while simultaneously allowing the Nazi Party to control the economy and prepare for war (Merlin, 1943).[4]

By the 1950s, the terms "privatization" and "reprivatization" began to surface sporadically. For instance, in 1958, the German trade union proposed the privatization of the automobile firm Volkswagen, referring explicitly to the transfer of government ownership to the private sector. The term "reprivatization" ap-

[3]Urban transportation, according to Marschner (1934, p. 587), was nationalized by the state during the period of high inflation in Germany.

[4]In 1943, Sidney Merlin's article "Trends in German Economic Control Since 1933," published in the Quarterly Journal of Economics, concurred that the National Socialist Party sought not only business support but also greater Nazi control over the economy. Merlin observed that the party facilitated the accumulation of private wealth and industrial empires among its key members through measures such as "privatization," thereby centralizing economic and governmental power within a narrow group, effectively creating a National Socialist elite.

peared in a 1959 issue of The Economist, which, according to the Oxford English Dictionary, marked its first appearance in English (Bel, 2006).

Contemporary texts on privatization (e.g., Donahue, 1989; Megginson, 2005; Savas, 2000) generally agree that Peter Drucker, an American author and management specialist, was among the first to use the term "privatization" in a manner consistent with its modern economic understanding. In his 1969 book, *The Age of Discontinuity: Guidelines to Our Changing Society*, Drucker popularized the concept of "reprivatization" in Chapter 10 and suggested that governments should focus more on governance and less on provision.[5] He argued that the public sector should either purchase services from the private sector or cease producing them altogether (Layne, 2001).

In its narrowest sense, privatization is any measure that transfers some or all of state-owned assets or control to private investors (Layne, 2001; Ramamurti, 2000). Megginson (2010, p. 146) defines privatization as "the sale of state-owned assets or equity to private investors (foreign or domestic) in exchange for cash payments."

However, the term's application may vary across jurisdictions and economic contexts. For instance, in the United States, "privatization" often denotes the outsourcing of government services to private entities (Megginson, 2010, p. 146).[6] This definition aligns with Kolderie (1986)'s concept of delegating public responsibilities to private firms. This interpretation considers privatization to have occurred when a public good or service's provision and/or production is contractually assigned to a third party (Layne, 2001).[7]

[5]Drucker (1969, pp. 218–224) popularized the term among economists by conceptualizing the policy of "reprivatization" in Chapter 10 of his book. To cure the "sickness of the government", Drucker proposed a policy using "non-governmental institutions of the society of organizations, for the actual 'doing', i.e., for performance, operations, execution. Such a policy might be called *reprivatization*" (Drucker, 1969, p. 218).

[6]In North America, the number of SOEs has been rather limited historically, thus even though privatization still refers to the transfer of assets, it has been often understood as contracting-out.

[7]Kolderie (1986) introduces a crucial distinction within this framework, differentiating between "provision" and "production." "Provision" encompasses the policy-level decision to offer a good or service, while "production" refers to the administrative process of creating or delivering it. This perspective illuminates the fact that governments can opt to privatize either the provision or production of services, or both (Layne, 2001). This perspective also helps to identify the opportunities for achieving social goals through private supply by a firm that may operate under a government contract or regulation (Shleifer, 1998). In a sense, the issues here are closely related to the vertical integration literature (Coase, 1937), except the question is that of the "make or buy" decision by the government rather than by a private firm.

In the same vein, El-Naggar (1989, p. 3) draws a distinction between public enterprises and other elements of the public sector. A public enterprise can be defined as a state-owned entity with a separate legal personality and separate accounts, which earns the bulk of its revenue from the sale of its goods and services. In other words, public enterprises constitute the business component of the public sector. It is where the state acts as a producer of, or trader in, goods and services which are normally produced by private enterprise. Privatization is primarily concerned with that component of the public sector. The situation is different with respect to state involvement in the provision of basic services such as education, health, justice, and, above all, the macroeconomic management of the economy. Such noncommercial activities fall outside the scope of privatization in most developed and developing countries.

Since the late 1980s, as the number of privatization research began to increase rapidly, the word "privatization" has been more broadly defined (Layne, 2001). Cook et al. (1998, p. 3), for instance, define privatization as "a range of different policy initiatives intended to change the balance between the public and private sector." Polevoy (1998) generally defines privatization as "the introduction of a private enterprise into the economy." In the transition economies, privatization involved the transformation of a centrally planned economy into a market economy characterized by private ownership (Megginson & Netter, 2001, p. 146).

Some scholars take a broader view, seeing privatization as the growing influence of the private sector compared to the public one. Wright (1993) describes it as the "discipline of market forces." On the other hand, Donahue (1989, p. 4) expands the idea, adding the "promotion of volunteerism and self-help society." These perspectives place privatization in the traditional nexus between state versus market. It stretches from full denationalization on one end to market regulation on the other (Ramanadham, 1989, p. 4).[8] A comprehensive concept of privatization would encompass not only the transfer of ownership of state assets but also a wide range of policies such as liberalization, marketization, and deregulation (Layne, 2001). These policies aim to abolish or restrict controls over markets, liberalize output decisions, deregulate price mechanisms, allow for

[8]However, it is crucial to note that the relationship between privatization and private sector development is not "intuitively obvious" (Cook et al., 1998, p. 4).

profit-driven decision-making, or open up new markets for the public sector.[9]

1.3 The Ownership Debate

What is the proper role of the state in producing goods and services in the economy? This question has a long history and has been the focal point of intense economic debates. History is often marked by periods of decisive state intervention alternating with reaction periods in the opposite direction (Layne, 2001; Stiglitz, 1989). Before WW2, SOEs were seen as a tool to strengthen military capabilities and catch up with countries that were "latecomers" in industrialization. After the war, SOEs were further justified because they may help governments correct various market failures while pursuing broader socio-economic objectives, such as regional development, job creation, and income redistribution. In the post-war period, interventionism and SOEs became the hallmark of development strategies worldwide. Nonetheless, from the late 1970s, a significant shift in economic thinking has occurred, opening up an era of market liberalization and privatization. From a historical perspective, this section examines SOEs' rise and fall alongside the emergence of privatization.

1.3.1 The Rise of State Ownership

The state has always intervened in the economy,[10] but this intervention became particularly strong starting in the 19th century (see, e.g., Shapiro and Willig, 1990, p. 281, Bognetti and Obermann, 2008). By the mid-19th century, governments began intervening in infrastructure industries essential to support

[9]By adopting this broader perspective, researchers and policymakers can develop more refined strategies for implementing privatization programs and better anticipate their wide-ranging economic and social consequences. Moreover, this approach allows for a more rigorous comparative analysis of privatization experiences across different countries and economic contexts. Such a nuanced understanding is essential for crafting effective economic policies that balance the benefits of market-driven efficiency with broader societal goals and institutional constraints.

[10]After the Industrial Revolution, the state gradually intervened in the economy to address the challenges and shortcomings caused by rapid industrial development. The role of the state included issuing labor laws in order to improve working conditions, constructing public infrastructure such as railways and water supply systems, regulating markets to prevent speculation and economic crises, and implementing social welfare programs to support the poor and reduce inequality. In some countries, such as France and the Britain, governments intervened and controlled railway networks, recognizing them as critical to economic development and industrial connectivity. However, the majority of enterprises during this period remained in private hands.

national economic and technological development. This intervention occurred mainly through regulations, subsidies, and interest rate guarantees to support private businesses in developing network industries such as railways, telegraph lines, and gas and water pipelines (Bognetti & Obermann, 2008). The state only directly intervened in building or operating these infrastructures when there was a need to prioritize speed or to maintain control over infrastructure of strategic importance.

By the end of the 19th century, European countries increasingly accepted government intervention in the economy, including direct government involvement in producing goods and services (Toninelli, 2000, p. 11). Governments in countries such as France, Germany, Russia, Belgium, and Italy began to establish SOEs to manage large infrastructure projects and industries considered vital to the economy, such as railways, postal services, electricity, and heavy industry (Bognetti & Obermann, 2008). For example, the Prussian government nationalized its railway system in the 1870s, recognizing it as a strategic means of transportation for national defense, especially after the Franco-Prussian War (1870-1871). In the 1870s, the Prussian State Railways was established, and private railway lines were acquired through direct negotiations with private owners. After acquiring these private lines, the government integrated them into the state railway system. This allowed for the synchronization and centralization of control, improving the efficiency of operations and maintenance. Following nationalization, the Prussian government could use the railway system more effectively for military purposes, significantly contributing to Germany's military capabilities in the subsequent wars.

Before World War I, nationalization and the creation of SOEs were largely sporadic and ad hoc, often driven by immediate practical needs and confined to sectors considered strategic for security and defense (Toninelli, 2000, p. 10). Nevertheless, this period set the stage for more comprehensive and systematic nationalization efforts, particularly in countries considered "latecomers" to industrialization, such as Belgium, France, and Germany (Toninelli, 2000, p. 11). These nations believed that the state should play a crucial role in closing the industrial gap with the United Kingdom, the world's leading industrial power since the onset of the Industrial Revolution (Galbraith, 1967). In these coun-

tries, governments produced goods and services to secure a steady supply of cheap raw materials for rapid industrialization (Toninelli, 2000, p. 8).[11]

Between the two World Wars, European nations underwent a significant shift in their approach to nationalization and SOEs. This change was driven mainly by the social and political tensions of the post-war era and the severe consequences of the Great Depression (1929-1933). The economic instability of this period fueled widespread criticism of the self-regulating nature of market capitalism (Toninelli, 2000, p. 16). Nations began to believe that the "invisible hand" of the market was defective, and government intervention was necessary to address market failures. The ideological framework of the former Soviet Union and Easter Europe also shaped a centralized and state-controlled system. In Western Europe, where capitalism had its roots and the impact of the Great Depression was particularly harsh, market economy also weakened.[12]

During the Great Depression, the success of Keynesian economics in reviving the U.S. economy further contributed to growing support for government intervention policies in the Western world (Tobin, 1986, p. 245). At that time, the primary goal of these policies was to address economic crises and prepare for war. For instance, in the early 1930s, France nationalized several arms manufacturing factories to strengthen military production capabilities in anticipation of rising military tensions in Europe.[13] In Germany, although the Nazi regime implemented some "re-privatization" policies in the 1930s to restructure the economy after the Great Depression, they simultaneously increased state control over strategic economic sectors such as weapons manufacturing, railways, and military-related industries. In particular, the arms industry and defense infrastructure were under tight control of the National Socialist Party.

After World War II, with the establishment of the Bretton Woods sys-

[11] This includes upstream industries such as the production of iron and steel.

[12] As a result, Western European governments began to expand state ownership in key strategic sectors. For example, in the United Kingdom, the government partially nationalized British Petroleum in 1914 and established major public enterprises such as the Port of London Authority (1908), the British Broadcasting Corporation (1926), and the Central Electricity Board (1926). In Spain, Germany, and Italy, nationalization became a key component of fascist policies. In Japan, from the late 19th century, the Meiji government began to take part in several strategic sectors such as railways, steel, and shipbuilding. Nationalization efforts intensified during the early 1930s as Japan moved towards fascism, further increasing state control over these key industries. In these countries, SOEs were seen as powerful tools for achieving national unity and militarization (Toninelli, 2000, p. 6).

[13] Subsequently, in 1933, France nationalized several airlines to form Air France, a national carrier.

tem and the impressive economic growth of Western European countries from 1950 to 1970, Keynesian theory became the most important theoretical foundation for the operation of mixed economies in Western Europe (see, e.g., Starr, 1988, Toninelli, 2000, p. 11). From 1945 to the late 1970s, the British government, for example, nationalized numerous strategic industries and public services to rebuild the economy and improve the standard of living. Large SOEs such as British Railways, British Steel, and British Gas became symbols of the strong growth of democratic socialism in Britain. Elsewhere, the state's role in the post-war era became increasingly prominent in managing crises, rebuilding economies, and promoting long-term economic development. Three decades from 1945 to 1975 can be considered the golden age of state ownership, marked by widespread nationalization and the creation of new SOEs worldwide (Toninelli, 2000, p. 14).[14]

Historically, several factors help explain why the global trend toward establishing SOEs became so widespread in the postwar period. First, there were political and ideological reasons for it. After the war, socialist, communist, and post-colonialist ideologies gained momentum, particularly in Eastern Europe, Asia, Latin America, and Africa. State ownership was considered the most crucial tool in these countries to promote income equality, achieve self-reliance, and eliminate capitalist exploitation.[15] For newly independent nations, state control was viewed as a means to ensure that national assets and resources remained within the country in the post-colonial period (Chatterjee, 1986).

The political landscape of the Cold War era also helps explain why state ownership became particularly widespread in the post-war period. During the Cold War, to ensure national security, key industries such as energy, transportation, and finance were strictly under state ownership. Governments were concerned about leaving these important sectors in the hands of private entities, especially foreign companies, as this could undermine national sovereignty. Political and security considerations played a crucial role in the nationalization programs of

[14]Even in country in East Asia like South Korea, during its rapid industrialization period from the 1960s through the 1980s, the government played a significant role in nationalizing banks to support the development of chaebols by providing them with low-interest loans and favorable financing.

[15]For instance, in the Soviet Union, state ownership became a central pillar of the socialist economy. In newly independent countries, state ownership was adopted to assert economic control, reduce dependence on former colonial powers, and develop domestic industries.

Western countries during the Cold War era (Toninelli, 2000, p. 5).

The above factors explain why worldwide governments simultaneously increased their control over their economies during a particular historical period. Before WW2, SOEs were seen as a tool to strengthen military capabilities and a means of catching up with countries that industrialized later in only a few countries in Europe. After the war, it was the historical contexts of the Bretton Woods system, the Cold War, the post-colonialist movement, and socialism that helped to spread SOEs and nationalization worldwide.

At the same time, a range of studies emerged, highlighting the benefits of state ownership.[16] Overall, economists at the time believed that state ownership in specific sectors was necessary because it could address market failures and promote socio-economic development (Musacchio & Lazzarini, 2014, p. 4). In these cases, SOEs can achieve multiple economic and social objectives beyond profit maximization (Shapiro & Willig, 1990; Shirley & Walsh, 2000). In the lines that follow, I will examine in greater detail the main arguments supporting these beliefs.

(1) Addressing Market Failures

The primary rationale for SOEs stemmed from the premise that direct government intervention could resolve various market failures. This view, which prevailed before the 1960s, held that nationalization was necessary when the "invisible hand" of the market was ineffective, meaning that the free market could not provide an optimal quantity of goods or services and/or allocate resources efficiently (Greenwald & Stiglitz, 1986; Nove, 1973). Market failures typically arise from three main factors: public goods, natural monopolies, and economic externalities.

The first market failure relates to the nature of public goods. Musgrave (1959) argued that pure public goods are "non-excludable" and "non-rivalrous." Non-excludability means that access to these goods cannot be restricted solely to those who pay for them. Non-rivalry implies that one person's use of the

[16] During this period, not only did Keynesian theory support the expansion of state ownership across Western countries, but even Nobel Prize economists (e.g., Arthur Lewis and Maurice Allais endorsed this economic model) (Sheshinski & Lopez-Calva, 2003). Other prominent economists such as Pigou, Dupuit, G.B. Shaw, Robbins, Montemartini, Schumpeter, Tawney, and Walras also, to some extent, supported the use of SOEs in the economy (Bognetti & Obermann, 2008; Shleifer, 1998).

good does not reduce its availability for others. These characteristics stem from two fundamental properties of public goods: indivisibility and inelastic demand (Ostrom & Ostrom, 1978). The difficulty in dividing public goods into individual consumption units and their often inelastic demand creates solid incentives for "free-riding" behavior among consumers. As a result, private investors, motivated purely by profit, will be unable to supply an adequate amount of pure public goods because they cannot exclude "free riders," making it difficult to control costs or generate profit. Public goods thus provide the rationale for SOEs.[17]

The second type of market failure relates to the emergence of natural monopolies in a few sectors. A natural monopoly occurs when a company has such a significant advantage due to economies of scale that it can provide goods or services at a lower cost than any other competitors in the market.

In such a case, as the initial investment costs are too high for new market entry, having too many firms would lead to inefficient resources allocation (Bognetti & Obermann, 2008; Kikeri, 2022). Without proper regulation, the monopolists (the private company) would extract high profits by setting prices so high that only high-income individuals will have access to their goods and/or services (Bos, 1996, p. 27; World Bank, 1995, p. 37; Chang, 2007; Toninelli, 2000, p. 7). In many cases, the government may directly intervene to stop such abuse of natural monopoly power. When that happens, SOEs have been frequently used to ensure fairer prices for consumers and a more socially optimal outcome (Musacchio & Lazzarini, 2014, p. 60).[18]

The third type of market failure involves economic externalities. Externalities occur when one party increases (or decreases) the costs (or benefits) of

[17]Roads are a prime example of public goods that the private sector is typically reluctant to provide due to their non-excludable and non-rivalrous nature. Since everyone can benefit from roads without diminishing its availability to others, private enterprises lack the economic incentive to invest in such systems, as they cannot charge users directly to recover their investment. In this case, tax and subsidy tools must be provided by the government (Chang, 2007). For instance, the government could levy taxes on citizens (i.e., costs of road maintenance is required during car registry). Then, the government can use these funds to offer subsidies to private firms who can build the roads. These subsidies would help cover part or all of the costs of constructing and maintaining roads. Subsidies would bridge the gap between the cost of delivering the service and the inability to charge individual users directly.

[18]Natural monopolies can be found in the field of public utilities (World Bank, 1995, p. 36). Concerned about monopoly power, (Nove, 1973), supported the nationalization of land, mineral mines, telephone services, insurance, and the automobile industry. For similar reasons, Meade (1948, p. 67) advocated for the "socialization" of the steel and chemical industries.

another party (or parties) without going through market transactions (Marshall, 1890; Pigou, 1932). In these situations, government intervention may be used to adjust prices by taxing consumers or providing subsidies to private operators (World Bank, 1995, p. 36). SOEs also offer governments a more direct means of controlling resource allocation and enforcing standards to reduce negative externalities or enhance positive ones.[19]

(2) Promoting Socio-Economic Development

In the absence of market failures, state ownership is a crucial tool for promoting economic development, especially in underdeveloped countries or regions. This perspective is grounded in the belief that markets, without appropriate regulation, tend to prioritize short-term profit-seeking at the expense of the long-term investments necessary for sustainable economic growth (Chang, 2007).

Because the private sector is arguably short-sighted, to foster long-term socio-economic developments, governments can and should make large-scale investments in both physical and human capacities (Kaldor, 1980, p. 5; Chang, 2007). Public investment programs can enhance physical capacity by investing in capital equipment and infrastructure, particularly in sectors that complement private sector investments (Shirley & Nellis, 1991).[20] Governments can also improve human capacity by investing in health, education, training, and scientific research.[21] The state can also drive modernization in neglected areas of the economy or stimulate growth in strategic sectors through public investment. In many cases, these public investments are made through SOEs (Toninelli, 2000, p. 8).

In development economics, such policies are referred to as the "big push" (Ellerman, 2012; Hirschman, 1958). In less developed countries or regions, pub-

[19]For instance, private investors might lack incentives to invest in industries that benefit other sectors without compensation (Chang, 2007). In that case, the government can fill the gap by investing in SOEs in those industries, creating positive "learning externalities" for the private sector (Greenwald & Stiglitz, 2006).

[20]For instance, the government can invest in public utilities (e.g. railway, telecommunications, and electricity) so that private firms will benefit later. This is known as the "crowding in" effects.

[21]For example, public investment programs with appropriate objectives, such as educational spending for impoverished children, can contribute to poverty alleviation and foster long-term economic and social development.

lic investment through SOEs is regarded as a foundational tool for advancing economic development (Musacchio & Lazzarini, 2014; Vernon & Levy, 1982). Labra (1980), for instance, argues that SOEs and centralized planning systems can be particularly beneficial during the early stages of development when capital markets are underdeveloped or private investment remains limited.[22] Additionally, SOEs may play a crucial role in supporting technological development, particularly technologies with high sunk costs (Mazzucato, 2013, p. 40). Moreover, SOEs are expected to address social equity issues, such as ensuring that all citizens, especially the most vulnerable groups, have access to essential services (Chang, 2007).[23] These potential benefits, considered particularly important for developing economies, are often used to justify the existence of SOEs (World Bank, 1995, p. 36).[24]

If SOEs were considered so beneficial by the theoretical literature, why did their popularity wane over time? As Toninelli (2000, p. 28) notes, the state "has overrun the boundaries set by economic orthodoxy through the theory of market failures." In fact, from the late 1940s until the late 1970s, SOEs dominated too many industries in both developed and developing countries, relegating the private sector to a secondary role (Short, 1984, p. 124).[25]

In developed countries, nationalization, SOEs, and central planning became the main tenets of reconstruction and industrial policies. By the late 1950s, SOEs in mixed economies control most communication networks and energy sectors. By the late 1970s, the state had owned assets in nearly everything from land, mines, and industrial plants to communications, banks, insurance companies, hospitals, and schools (Shleifer, 1998). It is estimated that, by the early 1980s, SOEs accounted for 10-25% of industrial output in these countries (Short, 1984, p. 123).

In developing countries, the public sector had an even more important role

[22] For example, state-owned banks can help reduce credit barriers by supporting large-scale, long-term projects that private ownership is unable to undertake (Bruck, 1998; Levy Yeyati et al., 2004).

[23] E.g., postal services, clean water, transportation.

[24] It is important to note that state ownership can sometimes function as a macroeconomic regulatory tool, as a large public sector creates a strong foundation for countercyclical investment policies.

[25] However, the numbers may vary across countries and sectors. Industrial economies like Austria, Italy, France, Norway, and West Germany had larger public sectors, where SOEs often led industrial modernization (Chang, 2007). Or, for example, in the case of banks and insurance sectors, they were nationalized in France but not in other developed countries.

(Toninelli, 2000, p. 20). Here, governments not only opted for state ownership in the so-called "strategic" sectors but also took on roles that private enterprises could have performed more effectively, leading to the overexpansion of bureaucracy and inefficient allocation of limited resources. Important industries were nationalized, and SOEs proliferated, controlling almost all essential industries and public utilities. This overarching role of SOEs weakened the private sector, stifling entrepreneurship and market-driven innovation. In these countries, it is estimated that more than one-fourth of all industrial output came from SOEs (Toninelli, 2000, p. 9), with public sector investments accounting for an average of 27% of total investments annually (Short, 1984, p. 115).

In former socialist countries, the situation was even more extreme. Here, the state not only owned strategic and essential sectors but virtually all assets within national borders (Shleifer, 1998). Central planning entirely replaced the market mechanism, eliminating the market's role in resource allocation. Every economic decision, from production to distribution, was made by the government, leaving little room for individual initiative or market signals. In the former socialist countries, all enterprises were SOEs.

In theory, SOEs can be useful because they can address market failures and help to foster economic development. However, regulations (e.g., tax and/or subsidies) may also help the government to achieve social goals.[26] In the real world, SOEs often use social goals to justify their need to maximize their own budgets and avoid competition (Niskanen, 1968; North, 1990). As a result, the SOE sector became more and more inefficient, and the government budgets reached an unsustainably high level (Toninelli, 2000, p. 12).

[26]For instance, the government could subsidize private companies engaging in activities with high externalities or license private enterprises to operate essential services (such as postal services, railways, and water), on the condition that they provide universal access to all consumers. This approach is commonly observed in the United States (Toninelli, 2000, p. 7). The American model is characterized by limited state participation in production, relying instead on government regulation of markets through the establishment of specialized agencies for specific cases. In this context, the state is viewed more as a regulator than an entrepreneur.

1.3.2 The Decline of State Ownership and the Rise of Privatization

The rapid expansion of SOE budgets and their inefficiencies in the three decades following World War II raised widespread skepticism about their role in the economy. However, it wasn't until the 1970s that the global economy changed fundamentally, forcing countries to reconsider long-standing assumptions about SOEs and initiate privatization (El-Naggar, 1989, p. 2). As I will examine in the following, in a context characterized by economic crises, stagflation, significant technological changes and increasing globalization, privatization emerged as a solution to the inefficiencies of SOEs and as a means to reduce government deficits, among other objectives.

1.3.2.1 Economic problems of the 1970s and 1980s

The historical contexts of the 1970s

The 1970s witnessed an unprecedented shock to the global economy (Obinger et al., 2016). This economic downturn was followed after the collapse of the Bretton Woods system in the early 1970s.[27] While the system provided stability and promoted post-war economic growth globally until the early 1970s, its core principles (i.e., fixed gold prices and fixed exchange rates) could not keep pace with the changing global economic conditions.

To supply global trade with sufficient liquidity, America needed to provide an increasing supply of dollars while also maintaining enough gold reserves to back those dollars.[28] By early 1971, the U.S. owed over $70 billion but had only $12 billion in gold reserves to back those debts (Yarbrough & Yarbrough, 1994). Having no choice, in the early 1970s, the U.S. announced that it would stop converting the greenback into gold. This marked the end of the Bretton Woods fixed exchange rate system, and a new fiat money era began (Bordo &

[27]The Bretton Woods system, established in 1944, aimed to stabilize the international monetary system by pegging currencies to the U.S. dollar and gold.

[28]Eventually, this exerted pressure on the fixed exchange rate mechanism. On the other hand, to maintain the fixed value of their currencies against the dollar, many countries had to continually inject money into foreign exchange markets. This led to inflation in their economies, and other nations accused the U.S. of "exporting" inflation to their countries. As these nations began exchanging dollars for gold, it became evident that the U.S. could no longer maintain the gold price at $35 per ounce.

Eichengreen, 1993).

The collapse of the Bretton Woods system immediately created volatility in the global financial landscape. Within just two years (1971-1973), the U.S. dollar depreciated by 25% (Hammes & Wills, 2005). Since oil was traded in U.S. dollars, this depreciation reduced the real income of oil-producing nations. As a result, OPEC countries became increasingly concerned about the declining value of their oil revenues due to the weakening dollar, and they began raising oil prices multiple times following the collapse of the Bretton Woods system. Oil price hikes created waves of high inflation across the world.[29]

This inflationary spiral placed significant strain on government budgets worldwide, even though levels might vary across countries (Obinger et al., 2016). High inflation eroded the real value of government revenues while rising unemployment and stagnant growth increased the demand for social welfare programs and public investment.[30] The socio-economic crisis required an expansion of the public sector. Yet, the larger the public sector grew, the higher inflation climbed, creating a vicious cycle of fiscal imbalance and economic instability that further weakened the government's capacity to address the underlying structural problems.

In this crisis context, there was a structural problem that I noted above: SOE inefficiencies. Although the collapse of the Bretton Woods system and the subsequent oil price hikes were the immediate catalysts for the widespread inflation in the 1970s, another factor that contributed to the stagflation problem stemmed from governments allocating a disproportionately large portion of their budgets to the inefficient SOE sector (El-Naggar, 1989, p. 12; World Bank, 1995, pp. 46–47).

Large subsidies towards SOEs can contribute to inflation and hinder economic growth through four key mechanisms. First, direct support for SOEs (especially unproductive, loss-making ones) depletes capital that could be allocated to more efficient, productive sectors. Second, governments often resort

[29]In retaliation for U.S. support of Israel during the Yom Kippur War, OPEC imposed an oil embargo on the United States and other Western countries, leading to the first oil crisis in 1973. The second oil shock in 1979, following the Iranian Revolution, further exacerbated the global macroeconomic situation. As a result, the oil price in U.S. dollars per barrel increased from $3.35 in January 1970 to $32.50 by the end of the 1970s.

[30]High Inflation, combined with economic stagnation and rising unemployment, led to a period of economic recession known as "stagflation" in the 1970s.

to central bank funding to cover SOE debts, which increases public spending, expands the money supply, and ultimately leads to inflation (El-Naggar, 1989, p. 12). Third, the government might direct its commercial banks to increase lending to struggling SOEs, diverting bank credit towards the inefficient sectors of the economy. Lastly, governments sometimes turn to foreign borrowing to finance SOE operations, leading to deficits in the balance of payments and current accounts. No matter how the government chooses to finance the inefficient SOEs, it potentially stifles overall economic efficiency, increases inflation, and hinders economic growth.

According to the (World Bank, 1995, p. 49), the magnitude of the macroeconomic underperformance is directly proportional to the size of the SOE sector. This implies that the bigger the size of the SOE sector, the more pronounced the adverse effects on inflation, economic growth, and fiscal stability. For example, in Chile, where the privatization process began relatively early, privatization was largely motivated by its structural imbalances during the early 1970s. Under the socialist government of Salvador Allende, the nationalization of private firms became a priority (Aldunate et al., 2020). As a result, by 1973, Chile faced a fiscal deficit of 25% of GDP, while inflation soared to 441% (Lüders, 1993). The country's poor macroeconomic performance under the socialist regime contributed to the coup led by Augusto Pinochet in 1973 (Aldunate et al., 2020). During his administration, Pinochet privatized hundreds of SOEs in key sectors of Chile's economy, hoping to improve the situation (Huneeus, 2006).

In the United Kingdom, the same pattern existed. The public debt crisis severely impacted the performance of SOEs operating in monopoly markets such as telecommunications, gas, water, electricity, and railway. As Stevens (2004, p. 52) noted, "The chaotic finances of those industries seriously undermined the credibility of state enterprise." Due to the high inflation of the 1970s, British government revenues declined, and it became increasingly difficult to sustain the large deficits of these industries (Kay & Thompson, 1986). A proposed solution was to sell off some of the state's shares in SOEs (D. Parker, 2004). Consequently, in 1979, arrangements were made to sell a portion of British Petroleum to private investors through a public offering.

In both Chile and Britain, early privatization attempts were not driven by

any specific theoretical rationale, nor did it reflect a belief within the government that state-owned industries should be privatized (Bortolotti & Siniscalco, 2004, p. 5). These privatization efforts were simply seen as a practical strategy to cut costs, improve efficiency through private sector involvement, and, most importantly, to alleviate the financial burden on the government budget (Bognetti & Obermann, 2008). Much like the nationalization movements of the mid-19th century, these early privatization initiatives were entirely pragmatic, driven by specific historical contexts rather than economic theories.[31] Governments started to privatize because they "felt" the need to reduce the burden on their budget, improve the balance of payments, alleviate inflationary pressures, and improve the performance of inefficient SOEs (Vickers and Yarrow, 1988; El-Naggar, 1989, p. 13; D. Parker, 2004).

The 1980s and the debt crisis

If, in the 1970s, countries like Britain and Chile actively experimented with privatization as a way to stabilize the economy and reduce the burden of the SOE sector, the 1980s marked a period when privatization was no longer a choice. During this decade, privatization became a defining feature of many developing economies, particularly in Latin America (Toninelli, 2000, p. 22). In these countries, waves of privatization were closely tied to their foreign debt crisis.

The debt crisis in the developing world originated in the 1970s. The oil crisis of the 1970s not only destabilized the global economy, as discussed earlier, but also generated a large amount of "petrodollars" circulating in international financial markets. This surplus capital allowed U.S. and European commercial banks to extend their credit to Latin American and other developing nations, which were struggling with widening current account deficits due to inflation (FDIC, 1998). In the early 1970s, real interest rates on short-term loans were extremely low, and global economic growth contributed to a relatively stable financial environment. Nevertheless, by the late 1970s, following the collapse

[31] While Friedman's monetary theory partly inspired the privatization process in Chile, much like Hayek's minimal government intervention doctrine influenced the United Kingdom, these theoretical foundations served only as a theoretical backdrop. The actual policy decisions were primarily shaped by the economic and political contexts these nations faced at the time.

of the fixed exchange rates system and the two oil shocks, industrial economies shifted their focus to controlling inflation and began to adopt tighter monetary policies.

As a result, nominal interest rates soared globally, and by 1981, the global economy had entered a deep recession. Almost immediately, Western commercial banks began shortening loan maturities and raising interest rates on the existing loans to the developing world. All of a sudden, the debtors realized that their mounting debt burdens had spiraled out of control (Devlin & Ffrench-Davis, 1995).

In August 1982, the Mexican government announced it could no longer meet its financial obligations, with total debt reaching $80 billion (Krugman, 2009, p. 34). Other countries soon followed suit, with 16 Latin American nations and 11 developing countries from other regions requesting debt restructuring (FDIC, 1998). In response, commercial banks halted new foreign lending and tried to recover and restructure existing loans. The debt crisis plunged these nations into severe recessions, leading the 1980s to be dubbed the "lost decade" (Carrasco, 1999; Easterly, 2001).

In response to the crisis, the IMF and the World Bank agreed to restructure the debt of developing nations (Ghosh, 1994).[32] However, the deal came with strict conditions. In line with the above-mentioned political changes in the developed countries, these international financial institutions required recipient countries to implement Structural Adjustment Programs, the so-called Washington Consensus, which focuses on four key elements: stabilization, liberalization, deregulation, and privatization (Summers & Pritchett, 1993). Developing countries, drowning in debt, had no choice but to accept the deal and implement these reforms (Bognetti & Obermann, 2008).

Among the four elements of structural adjustment programs, privatization emerged as a decisive solution for governments facing irreversible economic crises, burdened by mounting debt and an oversized yet inefficient public sector (Poggi, 1991). Unlike the first adopters of privatization, such as Britain and Chile, where privatization was a matter of choice, in developing countries across

[32] In fact, this is a relief effort organized and coordinated between commercial banks, central banks, the IMF, and the World Bank. In addition to restructuring existing debts, the IMF also agreed to lend additional funds to developing countries so they could cover the interest payments on their previous loans (Ghosh, 1994).

South America, Africa, and Asia, privatization was imposed as a prerequisite by Western financial institutions as part of broader structural programs to reform their declining economies.

1.3.2.2 Technology and globalization

During the 1970s and early 1980s, economic theories of privatization were still in their infancy.[33] Privatization efforts during this time, therefore, were a "leap of faith," motivated by increasing large budget deficits caused by the huge, inefficient, loss-making SOE sector. Privatization was further catalyzed by the broader economic and debt crises of the 1970s and 1980s, including rampant inflation, rising unemployment, and stagnant growth. In addition to the economic reasons discussed above, technological advancements and globalization after World War II also played a key role in the popularity of privatization worldwide.

Technological Advancements

Historically, network industries such as telecommunications and railroads were often considered natural monopolies. High initial fixed costs associated with constructing large infrastructure networks and economies of scale gave significant advantages to large companies.[34] These factors often resulted in a market where only a few firms could operate efficiently, giving rise to the natural monopoly structure. As noted earlier, when private firms hold monopoly power, they can exploit their market position by raising prices, lowering service quality, limiting output, or stifling innovation.[35] Since SOEs can potentially address these market failures, industries prone to natural monopolies are considered particularly well-suited to state ownership.

However, after World War II, many network industries underwent fundamental changes due to new technologies, disrupting the traditional factors that led to natural monopolies (Arthur, 1996). For instance, the rise of the Internet

[33] In fact, it was not until the 1990s that coherent theories on privatization truly took shape

[34] Additionally, these industries often provide essential services that require long-term investments.

[35] However, Schumpeter (1942) argued that private monopolies are more likely to innovate because they have the resources and incentives to invest in research and development. Therefore, technological advancements and innovations could benefit from monopolies, though this may come at the expense of allocative efficiency.

significantly lowered barriers to entry by reducing marketing and advertising costs, enabling new firms to compete more effectively. Newer technologies are often more efficient than the obsolete ones, which helps to transform production methods and organizational structures across industries, lowering the barriers to entry for new firms. Technology, which once justified state monopolies, has become the key to unlocking competition, while the emergence of new, flexible, and more efficient products has challenged the conventional definition and scope of "natural monopolies" (Woodcock, 2023).

A good example is the telecommunications industry, which was once characterized as a natural monopoly but underwent rapid technological transformation with innovations such as fiber optics, digital technology, the Internet, and wireless systems. These advancements significantly reduced the fixed costs required to participate in this industry. Once regarded as a natural monopoly, the telecommunications industry has transformed into a competitive market with numerous operators.[36]

In the energy sector, technologies such as solar and wind power have helped reduce electricity production costs, undermining the monopolistic dominance of traditional power producers that rely on large infrastructure investments, such as hydroelectric or thermal power plants. In manufacturing, advancements in automation have lowered production costs across many industries, allowing smaller businesses to compete with large companies that previously held monopolies due to their ability to achieve economies of scale. In transportation, the development of new construction materials, such as ultra-durable concrete and recycled plastics, has reduced the costs of building and maintaining road infrastructure. This has helped to ease the financial burden on smaller-scale road construction contractors, opening up the market to more participants. At the same time, thanks to innovations in management and finance, Public-Private Partnership (PPP) model, another form of privatization, emerged. The PPP model allows private firms to participate in large infrastructure projects and

[36]For example, the telecommunications industry in the UK, once dominated almost entirely by British Telecom (BT), an SOE, has become a highly competitive sector. The growing demand for telecom services, especially for data transmission and mobile phones, required substantial investment, an investment the government, constrained by its budget, could not meet (D. Parker, 2004). The emergence of private corporations such as Vodafone and Sky not only weakened BT's dominance but also spurred the development of numerous competitive products and services, providing greater benefits and lower costs for consumers.

even areas that had been considered natural monopolies in the past.

Globalization

In addition to technological advancements, globalization has been another key driver behind the privatization movement. As globalization reached every corner of the world, state ownership became less compatible with this trend (Toninelli, 2000, p. 42).[37]

Globalization has impacted state ownership and SOEs in three main ways. First, globalization has promoted the principles of free markets, asserting that private ownership is more efficient than state ownership. As nations have increasingly integrated into the global economy, they have been encouraged to liberalize their markets and minimize state intervention in economic activities. International financial institutions such as the IMF, World Bank, WTO, and ADB have consistently advocated for trade liberalization and the privatization of SOEs, particularly in developing countries. These organizations often promote privatization as a "magic bullet," simultaneously enhancing efficiency, reducing public debt, and fostering economic growth.[38]

Second, the national identity of SOEs could pose a significant barrier to their participation in the global economy. SOEs, being directly or indirectly controlled by governments, raise concerns that they may pursue political or strategic national interests rather than purely business objectives. Additionally, SOEs often possess significant financial resources because they are eligible to receive state subsidies. This makes some of them capable of acquiring key industries abroad.[39] In some cases, SOEs are even suspected of engaging in

[37]The key factors driving globalization include advancements in information technology, communication, and transportation, along with the establishment of international economic organizations such as the World Trade Organization (WTO), the International Monetary Fund (IMF), and the North American Free Trade Agreement (NAFTA).

[38]For example, Vietnam began negotiating its entry into the WTO in the mid-1990s, but it wasn't until the country accelerated its process of equitization and privatization between 2002 and 2006 that it officially joined the WTO in 2007. Although privatization was not a mandatory requirement, it served as a clear signal that a country is committed to deep integration into the global economy and adherence to market rules. It demonstrated Vietnam's strong commitment to economic reform and reducing state intervention. Chapter 3 will explore this in further detail.

[39]Take Export-Import Bank of China, for instance. This bank is funded by the Chinese government to provide financing for public investment projects abroad, particularly in the areas of infrastructure development and international trade in countries participating in the Belt and Road Initiative.

cyber espionage or interfering with critical information systems.[40] Ultimately, the presence of SOEs abroad can be leveraged to exert political influence over the host nation.[41] Therefore, in the context of globalization, the extensive participation of SOEs in international markets becomes very restricted. To expand globally, privatizing SOEs becomes an effective strategy to enhance competitiveness while overcoming barriers related to national identity.[42]

Third, to attract foreign direct investment (FDI) in the context of the globalized world, privatizing domestic SOEs could send strong signals to potential international investors. It serves as clear evidence of a government's commitment, particularly in developing countries, to fostering a transparent, fair, and internationally compliant business environment, which is crucial for attracting FDI. During this integration process, national leaders and policymakers are aware of the complexities involved in adjusting domestic policies while responding to the pressures of the global economy. Thus, in the era of globalization, countries must strike a balance between protecting sovereignty and attracting international investment. Privatization, in this context, becomes a strategic tool that enables nations to integrate into the highly competitive global economic order while reflecting a nuanced redefinition of national sovereignty.

In the context of rapid globalization and technological changes, not only have national borders become increasingly fluid, but the distinction between nation and enterprise has also blurred. Determining a company's nationality is no longer straightforward, as factors like headquarters location, factory location, or the nationality of owners provide little clue (Reich, 1991). The traditional notion of the "national company" is giving way to the rise of "multinational corporations." In the globalized world, privatization is viewed as the final step in breaking the once-strong link between businesses and national interests.[43]

[40] A real-life example of SOEs being suspected of engaging in cyber espionage or interfering with critical information systems is China Telecom. In 2020, the U.S. Department of Justice accused China Telecom, a SOE, of routing internet traffic through China, which raised concerns about potential espionage and the interception of sensitive information.

[41] A prominent example is Gazprom, Russia's SOE, which frequently adjusts gas prices based on Russia's political relationships with other countries, offering more favorable terms to those with friendly ties.

[42] For example, before privatization, Statoil was a state-owned monopoly in Norway's oil and gas sector. After its privatization in 2001 and rebranding as Equinor, the company was listed on the stock exchange, expanded operations to multiple countries, and now operates in 36 nations. It has become a multinational corporation and is ranked among the top 70 largest companies in the world.

[43] However, this shift also introduces new challenges for public policy and economic gov-

1.4 Economic theories of privatization

The economic theories of privatization suggest that transferring state-owned assets to private owners can increase efficiency. By introducing the profit motive and reducing political interference, privatized firms may respond more swiftly to market signals, adopt cost-saving measures, and deliver higher-quality goods or services. However, privatization theories also caution against potential pitfalls when institutional quality is weak, transaction costs are high, and markets lack sufficient competition. These theories, namely property rights theory, principle-agent theory, public choice theory, and neo-institutional theory—each offer distinct perspectives on the benefits and challenges of privatization. In the following sections, I will lay out the details of each theory, with key aspects summarized in Table 1.1.

ernance, particularly in protecting national interests as "multinational" businesses grow more and more detached from the control of any one country.

Table 1.1: Economic theories of privatization and their key aspects

Theories of privatization	Key aspects	References
Property rights theory	Property rights theory emphasizes that clearly defined and enforced private property rights are the foundations for economic efficiency and innovation, although Coase's transaction cost perspective acknowledges that high transaction costs may sometimes necessitate public ownership or intervention.	Alchian and Demsetz (1973, 1974), Coase (1960), and Hart and Moore (1990)
Agency theory	Agency theory posits that privatization can help mitigate the misalignment of interests between managers and owners by imposing stricter budget constraints and stronger managerial monitoring, yet its effectiveness in improving both firm efficiency and social welfare ultimately depends on factors like adequate competition, contract completeness, and well-designed regulatory frameworks to address persistent agency problems.	Lülfesmann (2007), Sappington and Stiglitz (1987), Schmidt (1996), Segal (1998), and Shapiro and Willig (1990)
Public choice theory	Public choice theory asserts that government failure is as likely as market failure because politicians and bureaucrats pursue self-interest and exploit SOEs for political gain; thus, while privatization can curtail this behavior by aligning incentives and revealing costs, its effectiveness depends heavily on robust institutions that deter corruption and enforce accountability.	Biais and Perotti (2002), Börner (2004), Boycko et al. (1996), and Shleifer and Vishny (1994)
Neo-institutionalist theory	Neo-institutional theory highlights that privatization outcomes could be shaped by formal and informal institutional contexts—such as isomorphism, path dependence, and transaction costs—which often lead to symbolic rather than substantive reforms, thereby explaining why privatization efforts can diverge from their stated efficiency goals.	DiMaggio and Powell (1983), Johnson et al. (2000), Meyer and Rowan (1977), and Williamson (1985)

1.4.1 Property rights theory

In the Wealth of Nations (1776), Adam Smith highlighted the importance of secured property rights as a foundation for economic prosperity (Smith, 1776). Until the 1930s and 1940s, this view remained central to economic theory. Renowned economists, including, for example, Bentham (1840), Mill (1848), Mises (1922), and Ricardo (1817) regarded property rights as critical for economic efficiency and growth. Even after the Great Depression, during the 1940s and 1950s, when this view was somewhat challenged by the overarching negative

views about private ownership, Hayek (1944) and Schumpeter (1942) continued to consider private property rights as the foundation of individual freedom and a free society, and essential for the development of an efficient social order. These authors, commonly associated with the Austrian school of economics, also predict that excessive state ownership would lead to a decline in both freedom and economic efficiency.[44]

Based on these early observations that private sector is efficient, property rights theorists, such as Alchian, Demsetz, and Hart, argue that private property rights are essential for promoting economic efficiency (Alchian, 1965, 2008; Alchian & Demsetz, 1973, 1974; Hart & Moore, 1990). These authors assert that when individuals own property, they have strong incentives to manage that property responsibly, as their personal interests are directly tied to residual income rights generated by that property. Private ownership of firms, therefore, facilitates the transmission of information through market prices, reduces transaction costs, encourages competition, and make sures that only efficient property managers survive. Such efficiency not only fosters economic growth but also incentivizes long-term investment, innovations, and technological developemnts (Alchian, 2008).[45] In the meantime, public ownership inherently undermines firm efficiency due to its overly dispersed and sometimes unclear ownership structures (Alchian, 1965; Alchian & Demsetz, 1973; Hart & Moore, 1990).

Through the theory of transaction costs, Coase (1960) offers a more nuanced view of private ownership. Coase's theorem suggests that when property rights are well-defined and transaction costs are sufficiently low, negotiations between parties can efficiently resolve negative economic externalities without the need for government intervention, which highlights the efficiency of private ownership in managing scarce resources under ideal conditions. Nonetheless, when transaction costs are high, such as in cases involving many parties with conflicting objectives or complex legal enforcement due to weak institutional frameworks, private negotiations may fail, making public ownership or regulation necessary. Thus, the Coase Theorem ultimately demonstrates that the effectiveness of pri-

[44] See also Shleifer (1998), Megginson (2005, p. 38).

[45] According to Alchian and Demsetz (1974), private ownership can be also socially beneficial because "it encourages individual parties to take into account social costs."

vate versus public ownership is not straightforward, and the resulting outcome largely depends on the level of transaction costs and economic externalities involved during negotiations.

1.4.2 Agency theory

Agency theory provides a theoretical framework for examining how decision-making authority, delegated from owners or regulators (principals) to managers (agents), can lead to agent's behaviors that does not always align with the principal's objectives (Jensen & Meckling, 1976).[46] In SOEs, such misalignments may arise because managers often lack the same profit-driven motives and strict monitoring mechanisms as managers in private firms, which reduces incentives for cost reduction and innovation (Sappington & Stiglitz, 1987). Thus, the core rationales for privatization is that transferring ownership to private shareholders typically imposes harder budget constraints on SOEs, reduces the possibility of state intervention, and increases managerial monitoring, all of which force managers to pursue productive efficiency more aggressively (see, e.g., Bortolotti and Siniscalco, 2004; Haskel and Sanchis, 1995; Laffont and Tirole, 1991; Vickers and Yarrow, 1991).[47]

Nevertheless, agency theory also underscores that a privatized firm might still face agency problems if information asymmetries are large, contracts are incomplete, and genuine competition fails to emerge. First, information asymmetries in corporate settings mean that managers typically possess more accurate knowledge about the firm's profitability, cost structures, investment needs, and operational risks than owners or regulators, as they are directly involved in day-to-day operations and decision-making processes (Sappington & Stiglitz, 1987; Schmidt, 1996; Shapiro & Willig, 1990). Under state ownership, SOE managers and their direct supervisors (e.g., ministers) might exploit this proprietary information about the firm to pursue objectives that align with their own interests rather than those of the state or public (Schmidt, 1996; Shapiro

[46] To address this misalignment, firms incur agency costs, including monitoring expenses (costs borne by shareholders to oversee managers), bonding costs (managers' efforts to align with shareholders' goals), and residual loss (value lost due to imperfect alignment).

[47] According to Vickers and Yarrow (1991), the benefits of privatization are particularly relevant in sectors where competition helps generate more reliable information on managerial efforts, especially in industries with high levels of technological advancement or consumer demand.

& Willig, 1990).[48] Under private ownership, shareholders do have stronger financial motivations to monitor and discipline managers; however, as regulators no longer have direct access to private information once a firm is privatized, managers and owners may prioritize short-term gains over allocative efficiency unless the government pays an "information rent" in the form of public spending (Schmidt, 1996; Shapiro & Willig, 1990).[49] Thus, even if privatization occurs and improves firm performance, the social benefits would still depend on the design and enforcement of institutional and regulatory frameworks that can mitigate potential post-privatization agency conflicts between regulators and firms.

Second, the incompleteness of contracts might also influence the outcomes of privatization. Since all future contingencies cannot be fully specified in the present, incomplete contracts leave room for managers in private firms to underinvest in non-contractible, socially beneficial goals (Alonso & Andrews, 2016; Hart et al., 1997; Shapiro & Willig, 1990). In such cases, while privatization can enhance efficiency in aspects that are more easily measured, it may also neglect social and hard-to-measure goals if the regulator fails to include explicit incentives or penalties in legal and contractual provisions (Shleifer, 1998).

Third, when competition is weak, whether due to natural monopolies or regulatory barriers, privatization might have limited impact on improving efficiency and could even exacerbate agency problems. A government may still view a privatized firm as "too important to fail" because of its strategic role in a monopolistic market (Segal, 1998). Moreover, domestic banks can favor certain formerly SOEs, effectively replicating the same dynamic as a direct bailout (Malesky & Taussig, 2009). In these cases, managers in privatized firms may continue to enjoy the same kind of soft budget constraints that they had under state ownership (Shleifer, 1998). When a state monopoly simply transforms into a private monopoly and budget constraints are not "hardened," the expected efficiency gains from privatization diminish, as the absence of competition weakens incentives for cost reduction, while the presence of private ownership reduces

[48] Likewise, in cases where the government auctions off the right to produce a public good to private firms through a competitive bidding process, as Sappington and Stiglitz (1987) note, if asymmetric information exists regarding production costs, firms with more information may demand a risk premium (a form of subsidy), thus reducing cost efficiency.

[49] Schmidt (1996), therefore, suggests that partially privatized firms can deliver both economic and social goals.

the incentives for the pursuit of social goals (Lülfesmann, 2007; Segal, 1998).[50] In these sectors, as Hubbard (2016, p. 97) puts it, "the only thing worse for welfare than a state monopoly could well be a private monopoly."

1.4.3 Public choice theory

In public choice theory, government failures are considered just as likely as market failure. Buchanan views the evolution of constitutions and political systems as a process in which individuals strive to protect and promote their own interests (Buchanan, 1978; Buchanan & Tollison, 1972). Hence, even during democratic collective decision-making processes, individuals behave similarly to market actors, seeking to maximize their personal benefits while minimizing costs (Buchanan & Tullock, 1962). Given that individual benefits are often small and diffuse, voters have limited incentives to influence political decisions, which can lead them to make choices that are more likely to be shaped by interest groups and lobbying activities (Becker, 1983).

Not only do voters, but also public officials, often pursue objectives that diverge from the preferences of the majority. A key assumption of public choice theory is that bureaucrats, unlike for-profit firm managers, aim to maximize their bureau's budgets rather than pursue efficiency, as larger budgets bring them more "salary, perquisites of the office, public reputation, power, patronage, ease of managing the bureau, and ease of making changes" (Niskanen, 1968, pp. 293–294). Due to the lack of competitive pressures, incomplete contracts, and asymmetric information between the bureaucrats and his direct supervisor(s), this has often led to the approval of inflated public budget plans.

Another important assumption in public choice theory is that politicians often use SOEs to achieve political goals, such as maintaining excess employment for electoral gains (Shleifer & Vishny, 1994). To pursue this objective, politicians negotiate with SOE managers and offer budget increases funded through public spending in exchange for the managers' agreement to maintain excessive employment. Privatization may help address such issues by introducing competitive pressures, aligning managerial incentives with profit maximization, increasing

[50] When competition is strong, ownership does not matter, as private firms are often compelled to deliver on social goals—even when these goals are not explicitly part of the contract—due to market forces and the need to build a strong reputation (Shleifer, 1998).

the costs of political intervention, and revealing hidden costs. These changes limit the ability of bureaucrats and politicians to exploit public resources for political purposes, ultimately leading to more efficient outcomes (Boycko et al., 1996; Dunleavy, 1989).[51]

However, the role of institutional quality is critical in determining the outcome of privatization. In environments with strong institutions, privatization would be a game-changer, as it is likely to improve performance and limit political interference. In this environment, since the transaction costs of illegal cooperations are high, the incentives for rent-seeking behavior are significantly reduced. In contrast, in systems with weak institutions, privatization may fail to deliver expected benefits. (Börner, 2004; Boycko et al., 1996; Laffont, 2005; Shleifer & Vishny, 1994). For example, when bribery is possible and costless, politicians and managers may reach an outcome that benefits them both. In this scenario, privatization is ineffective because the allocation of resources remains unaffected by changes in control or cash flow rights (Shleifer & Vishny, 1994). Lastly, public choice theory also sheds light on how privatization and soft budget constraints can be used, whether in democracies or autocracies, to serve political purposes, such as securing political support (Biais & Perotti, 2002; Börner, 2004; Robinson & Torvik, 2009b).[52]

1.4.4 Neo-institutional theory

Neo-institutional theory offers a useful framework for understanding privatization by emphasizing how both formal and informal institutions—such as cultural norms, traditions, legal frameworks, property right arrangements, and organizational structures—shape economic behavior and policy choices. This perspective helps explain why privatization may produce varying outcomes across different national and organizational contexts.

[51] In Boycko et al. (1996) model, the politician maximizes employment, while the manager focuses on profit. To convince the manager to maintain excess employment, the politician must make transfers from the Treasury, raising taxes or inflation. Privatization, by transferring control rights to managers, makes it harder for politicians to justify the use public funds to sustain excessive employment

[52] Soft budget constraints allow for the redistribution of resources to key political allies, ensuring political survival. In autocratic regimes, where leaders rely on a smaller base of supporters, the use of soft budget constraints becomes particularly prevalent as a means of maintaining long-term political stability, even at the expense of economic efficiency (Robinson & Torvik, 2009b).

A core insight from neo-institutional theory is that organizations and governments often adopt certain policies or structures primarily to appear legitimate, a process called *isomorphism* (Meyer & Rowan, 1977).[53] In the context of privatization, which can be conceptualized as the shift from one institutional template to another, it can lead to symbolic rather than substantive changes (Johnson et al., 2000). For instance, at the national level, countries might introduce privatization measures to signal compliance with international best practices, yet continue to retain significant control over these entities (Walter, 2008).[54] At firm-level, similar dynamics occur when an SOE is privatized but continues to be controlled by the state through the "golden" shares, implicit subsidies, or protective regulations (Bortolotti & Siniscalco, 2004; Bruton et al., 2015). This phenomenon, known as *decoupling*, highlights the gap between formal policy changes and the actual implementation on the ground (Vu-Thanh, 2014; Walter, 2008). Institutional isomorphism and decoupling allow nations and companies to meet external expectations and gain legitimacy while maintaining flexibility in their actual activities, but they often come at the cost of efficiency (DiMaggio & Powell, 1983).

Further, transaction cost considerations—such as asset specificity, uncertainty, and the infrequency of major privatizations—can complicate privatization efforts. Highly specific assets owned by state enterprises (those with limited alternative uses) can complicate the process of privatization as it increases the difficulty in valuing the enterprise accurately for sale. Moreover, in transitional economies, privatization often occurs in environments of high uncertainty (e.g., fears of policy reversals, unclear regulatory environments), which makes it more difficult to finalize sales or attract reliable investors (Williamson, 1985).[55] Additionally, the infrequent nature of large-scale privatizations in most economies

[53]For example, an organization might adopt formal job titles, elaborate procedures, or strategic plans because these are "myths" that make the organization appear modern or competent, even if they are not directly related to the organization's effectiveness.

[54]This is actually a form of symbolic reform where governments announce privatization policies or initiate processes like selling some shares of large SOEs but retain significant control over the sectors (L. Cao, 2000; H. H. Le, 2017). These superficial reforms give the appearance of adopting market principles and global best practices without truly relinquishing control over the economy, allowing countries to secure loans, trade deals, financial assistance, or political goodwill from their partners.

[55]It is important to note that, while Williamson's work is more associated with New Institutional Economics, his ideas on transaction cost economics and the role of institutions in governing economic exchanges also influence neo-institutional thinking, especially in explaining the shift between markets and hierarchies (public vs. private ownership).

means that governments may lack experience and expertise in managing the process efficiently.

Finally, the path-dependent nature of institutions means that formal changes in ownership structures do not automatically transform underlying norms and behaviors (North, 1990). Even after privatization, deeply embedded informal practices, such as political patronage or entrenched networks of elites, can shape privatization outcomes in unexpected ways. For example, in the case of Russia's mass privatization program in the 1990s, the formal policy of rapid privatization clashed with the informal institutions inherited from the Soviet era, such as the lack of market experience, weak property rights enforcement, and entrenched networks of political and economic elites. This institutional mismatch led to unexpected outcomes, including the concentration of ownership in the hands of a few oligarchs, widespread asset-stripping, and limited improvements in firm performance (Godoy & Stiglitz, 2005; Guriev & Rachinsky, 2005; Stiglitz & Ellerman, 2001). Institutional contexts help explain why, despite the adoption of similar privatization approaches, outcomes can vary significantly across countries or even among firms, depending on how these formal rules and informal constraints interact (Bruton et al., 2015; Spicer et al., 2000).

In sum, although property rights theory, agency theory, public choice theory, and neo-institutional theory collectively suggest that privatization can enhance productive efficiency, they also reveal that private ownership resulting from privatization may sometimes neglect broader societal interests, particularly when social objectives cannot be fully specified or enforced. The success of privatization, therefore, depends on the institutional environment's capacity to neutralize political distortions, strengthen accountability, and foster an equitable distribution of benefits. Recognizing these interdependencies is crucial for understanding why privatization efforts occasionally deviate from their established aims and, most importantly, for designing effective privatization methods to specific institutional contexts to achieve optimal results.

1.5 Methods of privatization

If transaction costs are zero, the method of privatization doesn't matter, as resources will always flow toward the most efficient uses. However, when transaction costs are positive (e.g., when information is asymmetrical or when competition is imperfect), theoretical issues related to the choice of appropriate privatization methods become central to the discussion of how these methods may impact efficiency. Depending on the government's goals and the nature of transactions, the government often chooses certain privatization paths, such as insider privatization, mass privatization, and direct sales (Sutela, 1998), with each method having its own advantages and disadvantages. In the following section, I will discuss these three methods of privatization in detailng, sequencing, and timing of privatization.

1.5.1 Insider privatization

In insider privatization, managers and employees acquire ownership of SOEs either by purchasing a controlling stake at market price or receiving shares at discounted rates.[56] In both cases, insider privatization remains a market transaction at a non-negative price, as it involves direct negotiations between the government (the seller) and the company's staff (the buyer). Because the same insiders who previously ran the SOEs remain in control after privatization, the central question in this context is whether insider privatization actually improves corporate governance and firm performance.

The rationale for insider privatization lies in its potential to align the interests of employees and managers with the actual performance (e.g., long-term profitability) of the firm they now own. Through firm ownership and an appropriate profit-sharing mechanism, these insider-owners are expected to have stronger incentives to make decisions that improve firm value. Specifically, ownership provides a direct financial stake in the firm's outcomes, motivating insiders to exert greater on-the-job effort and commitment toward tasks that enhance

[56] In a typical Management and Employee Buyout (MEBO) scheme, where only a minority of shares are initially transferred, employees typically purchase a small portion of the firm's shares. They can then use these shares as collateral to secure a bank loan at a preferential rate, enabling them to acquire the remaining shares of the SOE if they choose to do so.

productivity and operational efficiency (Ellerman, 1993). By internalizing the costs of suboptimal performance,[57] insider ownership creates a self-regulating system in which employees and managers devise solutions to monitor their own performance, constantly refining and reinforcing stronger corporate supervisory structures in order to reduce agency costs and sustain long-term improvements in firm performance (Wright et al., 2002). In other words, as long as insider privatizations successfully convert employees from agents into their own principals, firm efficiency will improve.[58]

However, insider privatization may bring about several problems when external monitoring mechanism is weak. These theoretical arguments are often based on the assumption that SOE managers and employees often have more information than their supervisors (e.g., the officials in charge of privatization), which leads to information asymmetries. As a result, insiders could be the best group to evaluate the true value and profit potential of their own firms. With the informational edges they have, insiders could deliberately understate the value of their firm before privatization so that they could acquire ownership at a significantly reduced cost (Blanchard, 1996; Megginson, 2005). Moreover, with this closely guarded information, SOE managers and employees may collude and act collectively to prevent resale to outsiders in order to avoid layoffs and protect their own job security, which comes at the cost of improved efficiency (Debande & Friebel, 2004).[59] Insider ownership of privatized firms makes collusion easier, with managers often taking the lead in enforcing it. Therefore, asymmetric information could result in a loss for the government in terms of revenue and efficiency.[60]

To address these issues, H. Li and Rozelle (2004) propose that the government should use a mechanism based on screening theory to extract information

[57] These suboptimal efforts are unobservable and thus cannot be accounted for in the employment contract, but they are negative externalities that bring about hidden costs for firms.

[58] In reality, the success of insider privatization depends on specific contexts, such as workers' perceptions of whether they feel like true owners based on the extent of their participation in the decision-making process (Pendleton et al., 1998). For instance, it is possible to create the feeling of "belongingness" with corporate culture, rather than forcing employees to purchase only a tiny fraction of equity stake.

[59] However, Debande and Friebel (2004) also shows that insider privatization improves efficiency when the positive incentives of ownership outweigh the risks of softened budget constraints.

[60] These theoretical insights about insider privatization also help explain why privatization was slow in many transition countries.

from the manager. The key feature of a screening contract is that it offers a choice between different types of payment structures. For instance, the manager can pay a high price to buy the firm upfront and, in return, gets to keep all future profits. Or else, the manager can pay a lower buyout price to buy the firm but agree to share a portion of future profits with the government. Managers who are confident that they can improve the firm's performance will prefer to pay a higher upfront price because they expect to make larger future profits. On the other hand, managers who are less confident about the firm's future or their ability to turn it around will opt for the lower buyout price, accepting that they will have to share future profits with the government. Such a screening method allows the government to extract some information about the firm's potential from the manager's choices, and thus, it helps mitigate the risks associated with asymmetric information during privatization process.[61]

1.5.2 Mass privatization

When capital markets are underdeveloped and domestic savings are low, an option for the government is mass privatization (Megginson, 2005). Mass privatization refers to the process of privatizing hundreds or thousands of SOEs simultaneously (Berg & Berg, 1997). It generally involves distributing shares or vouchers to the general public at little or no cost, which can be used to purchase shares in SOEs (Brada, 1996; Kattuman & Domañski, 1997; King, 2003). This approach became appealing in transition economies, such as the Czech Republic, Lithuania, Russia, and Poland, because traditional methods of selling state enterprises (i.e., individual, case-by-case sales) were too slow and complex given the massive number of firms requiring privatization (Bornstein, 1997; Megginson, 2005; Sachs, 1992). In these economies, almost all industrial production and much of the economy were controlled by the state, and the sheer scale of privatization demanded a fast method to distribute shares widely across

[61] Nevertheless, the authors also discuss the situation when the government continues to have a financial stake in the firm's future profits after privatization (as in the case of partial privatization). This arrangement, while useful in overcoming the initial information gap, reduces the manager's incentive to exert effort and improve firm efficiency. As a result, these firms often underperform compared to firms where the manager has full control over both ownership and profits. This conclusion is similar to Debande and Friebel (2004) and Shleifer and Vishny (1994).

the population.[62] As Bornstein (1997) puts it, in transition countries, there was no real alternative to mass privatization.

Indeed, in transition economies where nearly all industrial production was previously controlled by the state, mass privatization helped accelerate the shift to market-based systems because giving away shares at a discounted price in the initial stage can quickly break the links between the state and the firm (Bennett et al., 2007; Bornstein, 1997; Megginson, 2005; Sachs & Woo, 1994). While this method drastically sped up privatization, its outcomes varied. In some cases, a vibrant market economy emerged, supported by new owners and managers who actively restructured firms (Bortolotti & Siniscalco, 2004; Brada, 1996). In others, insider control or managerial entrenchment weakened corporate governance and dampened efficiency gains (Berg & Berg, 1997; Bortolotti & Siniscalco, 2004; Brada, 1996).

As almost all members of the public can participate in this process, mass privatization may increase political support (Bortolotti & Siniscalco, 2004; Grime & Duke, 1993; King, 2003), reduce the risk of expropriation policy in the future (Blanchard, 1996; Schmidt, 2000; Schmidt & Schnitzer, 1997), and prevent former managers and bureaucrats from retaining control over state assets (Brada, 1996; Lipton et al., 1990). However, its efficiency depend on how shares are distributed and whether these shares will eventually flow toward efficient uses. For instance, in the Czech Republic and Poland, the mass privatization program here was relatively successful and contributed to the development of a vibrant market economy (Bortolotti & Siniscalco, 2004; Brada, 1996). On the other hand, in Russia, although the process successfully privatized many enterprises in a short period of time, it led to insider control in many enterprises after privatization, hindering labor restructuring and governance (Berg & Berg, 1997; Bortolotti & Siniscalco, 2004; Brada, 1996).[63]

[62]The Czech Republic was the first country to adopt voucher privatization (Stiglitz, 1999). Eligible citizens receive voucher points, which could be used to buy shares in up to 10 state companies at minimal rates (Berg & Berg, 1997). Here, investment funds played a huge role, holding about 70% of shares from the first wave of privatization. In Poland, more than 500 medium and large SOEs were privatized using this method. Their shares were distributed to the so-called National Investment Funds (NIFs). Citizens could then purchase vouchers to acquire ownership of these NIFs (Berg & Berg, 1997; Sachs, 1992). In Russia, the mass privatization program involved distributing vouchers to citizens, which could be used in voucher auctions to acquire shares in privatized firms (Megginson, 2005).

[63]Sutela (1998), for instance, notes that the price paid for shares in these enterprises was often nominal, which led to preferential giveaway to insiders (i.e., managers, employees, and

Clearly, these examples suggest the outcome of mass privatization depends very much on the initial conditions and how vouchers are transferred subsequently. Theoretically, mass privatization might lead to excessively dispersed ownership (Sutela, 1998). As discussed earlier, property rights theory and agency theory would predict that such diffuse ownership often leads to weak corporate governance since individual shareholders have little power or incentive to influence management decisions (Alchian, 1965; Brada, 1996; Vickers & Yarrow, 1991; Vickers & Yarrow, 1988). Moreover, mass privatization can result in firms being undercapitalized, as a wide distribution of ownership cannot bring in new funds for investment or restructuring (Bortolotti & Siniscalco, 2004).

However, mass privatization might also lead to concentrated ownership. Citizens have little incentive to keep vouchers in the long run, since their dispersed shareholdings have little influence on control, so they may sell some of their shares for cash (Schmidt, 2000). In some cases, they may find themselves selling it to the managers and employees of the firm. In other cases, the government directly transfers vouchers at zero price to the workers. To better insure themselves, employees have an additional incentive to sell shares for cash since the risks of unemployment and the potential loss of income are strongly correlated. If employees exchange their shares for those of other companies as part of an investment strategy to diversify their portfolio, the situation effectively returns to that of diversified mass privatization. However, managers may want to buy these shares for entrenchment purposes (Megginson, 2005).[64] Ultimately, when the entrenchment effect fades, many of the vouchers are likely to be resold to a small number of institutional investors for modest gains (Birdsall & Nellis, 2003). When this occurs, these investors are expected to enhance the monitoring of management, restructure the labor force, and, eventually, improve economic efficiency.

local officials).

[64]Megginson (2005) states that insiders wanted "inconsteable control of privatized companies virtually everywhere". This entrenchment leads to the lack of effective restructuring since insiders seek to protect their job-security.

1.5.3 Direct Sales

Direct sales to outside owners were often regarded as the natural method during the early period of privatization. Countries like Chile and Britain, which were among the first to privatize, employed this approach in their initial stages (Bolton et al., 1992). In a direct sale, the government typically sells its stake in a SOE, and this can take the form of either an asset sale or a share issue privatization (SIP) (Megginson, 2005, p. 91). Governments often use asset sales for smaller, less profitable SOEs, while larger, more profitable companies are usually sold through SIPs.[65]

An asset sale to strategic investors, whether through public tender, auction, or direct negotiation, is a desirable method of privatization for several reasons. First, if assets are sold at competitive prices, corporate governance should be expected to improve immediately due to the increased profit incentives and monitoring effects. Asset sale to outsiders creates owners who are motivated to use resources and monitor managers efficiently because they acquired the privatized firms using their own resources (Gray, 1996). Asset sales to a few investors may result in a concentrated ownership structure necessary for labor restructuring. Second, outside investors may bring in new clients, new skills, and, most importantly, new capital (Sutela, 1998). When privatization is to foreign buyers, the benefits can be higher since they can bring foreign technologies and market access with them, too. Finally, if assets are sold above competitive prices, the government may also raise extra revenues from privatizations.

However, the method of asset sale can be undesirable in several situations. For instance, sales of assets to too few investors may result in an overly concentrated ownership structure, and if larger shareholders prioritize their own interests over those of smaller shareholders, it could harm the firm's efficiency (Demsetz & Lehn, 1985). Additionally, case-by-case asset sales can be slow or impractical due to the complexity involved in the process. In the case of loss-making SOEs, domestic investors are often reluctant to invest in these firms.[66]

[65] It is important to note that there are several methods of direct sales, such as direct negotiations, public tender, initial public offerings, and auctions (Sutela, 1998). Public tender and auction are quite similar, as both involve a bidding process (even though the details differ), so they can be grouped as asset sales along with direct negotiations. Another method of privatization, such as restitution (the return of nationalized assets to former owners), can also fall into this category of asset sales.

[66] Asset valuation in such cases becomes difficult due to the lack of proper market valuation

In such situations, the government might consider restructuring the firms before selling them to make them more attractive to investors; however, as governments usually lack expertise in restructuring, it can be a challenging process (Bos, 1996).

Another issue with asset sales is the wide range of methods of sales available to the government, with the most important being the choice between auctions and negotiations. In an environment where genuine competition is introduced, the methods of sales no longer matter (Kultti, 1999).[67] As noted by Bulow and Klemperer (1996), this might be difficult due to institutional constraints. Fluck et al. (2007) suggest that direct negotiations might be preferable in weak institutional environments, and the success of privatization efforts depends on the incentives and constraints faced by the government agent in charge of privatization. In this case, the government may care more about the problem of who will actually invest in restructuring after privatization (Cornelli & Li, 1997). Investment pledges or job guarantees obviously were meant as indicators of the buyer's restructuring efforts. However, the actual amount of investment is not possible to verify ex-ante, while job guarantees can be affected by macroeconomic conditions. Direct negotiations therefore allow the government to customize the privatization sale through more complex contracts (Bos, 1996).[68]

Another common method of direct sales is SIP. SIP (i.e., privatization on stock markets) is often claimed to foster stock market development (Pagano, 1993). Due to the positive externalities driven by the listing decision of a privatized SOE, a sustained SIP program can have positive effects on the national stock market exchange by improving investors' diversification opportunities and signaling the government's commitment to market reforms (Chiesa & Nicodano, 2003; Subrahmanyam & Titman, 1999). With SIPs, governments can also customize the terms of a sale to achieve specific political and economic objectives.[69]

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and high uncertainty about future profitability.

[67] Kultti (1999) argues that auctions and posted prices produce similar results in terms of prices and satisfaction for both buyers and sellers, meaning either method can work efficiently, as long as there are enough buyers and sellers and the market behaves competitively. This, again, emphasizes the application of the transaction cost theory.

[68] Under the theoretical framework of Bos (1996), it is possible to avoid this problem by setting a fixed price in the contract from the start. A long-term fixed-price contract gives clarity and stability, encouraging both sides to invest adequately in restructuring without fearing that they'll lose out during renegotiation, making the privatization process faster and more straightforward.

[69] For instance, based on the objectives it most desires to achieve, the government can

Gupta (2005) finds that the stock market can have monitoring effects on the managers of SOEs that are partially privatized using SIP. Under full privatization, it's not possible to separate the political and managerial perspectives because ownership and control are transferred at the same time. Nonetheless, under partial privatization, only a part of ownership is sold on the financial market while the government continues to control the firm. Thus, partial privatizations through SIP provide a natural experimentation ground to test the managerial hypothesis that adequate information about managers is important in the efficiency of SOEs. Gupta argues that for private firms, going public may have negative effects on firm performance because there could be a substantial agency cost associated with the increased dilution of ownership. In SOEs, however, because the owner (the government) is not interested in effectively monitoring managers closely in the first place, the dilution of state ownership would not lead to an increase in agency costs. Thus, partial privatization of SOEs on the stock market provides incentives for the manager to improve efficiency. Gupta tested this theory empirically, and the evidence supports his argument.[70]

Overall, the choice of privatization methods, whether it is insider privatization, mass privatization, or direct sales to outsiders, should depend on the government's objectives, as each method has its own trade-offs. When the government's primary goal is to maximize efficiency, direct sales to strategic outside investors are generally preferable. This is because such investors are strongly motivated to restructure the firm and closely monitor its management. At the same time, they can introduce new capital, expertise, technology, and access to markets. However, when the government prioritizes speed, mass privatization or insider privatization might be chosen, despite potential drawbacks such as insider entrenchment. In the end, the decision on how best to privatize should align not only with the government's overarching policy objectives but also with the country's economic, institutional, and political contexts.

decide whether to sell all at once or through several partial sales, how large a fraction of shares to issue in each offering stage, which groups of investors to be favored over another, or which method for pricing and underwriting.

[70]Stein (1989) also emphasizes takeovers: stock price can have an important effect on managerial disciplines as it signals the performance of the managers.

1.6 Sequencing, staging, timing, and pacing of privatization

Which industries or companies should be privatized first? Based on the government's objectives, there are two main arguments, each leading to different predictions about the optimal sequencing of privatization. First, if the government aims to maximize efficiency, theories suggest that the least profitable or least efficient firms should be prioritized for privatization (Frydman et al., 1999). From an efficiency standpoint, these firms have the greatest need for restructuring, and the transaction costs associated with privatizing inefficient companies are not so large as to outweigh the potential efficiency gains. Additionally, these firms should belong to industries where the private sector has an "obvious comparative advantage" (Odle, 1993). Only after these inefficient firms in competitive sectors are privatized should the government move on to privatizing firms in more strategic, less competitive industries. For example, to enhance firm efficiency, the government may sequence privatization to maximize the flow of information within the economy (Glaeser & Scheinkman, 1996). The underlying assumption is that private firms, compared to SOEs, are more responsive to demand and cost fluctuations. Privatization, therefore, enables SOEs to adapt more effectively to changing market conditions. If the government's goal is to increase efficiency by improving firms' responsiveness to market dynamics, privatization should begin in industries where demand is more elastic (i.e., competitive sectors). This allows firms to quickly adjust to changes and offer better services.[71]

Second, if the government's goal is to maximize revenue and minimize political costs, theories suggest that it will likely prioritize the sale of efficient and profitable firms. These firms are more attractive to investors and the public,

[71] In a model with three sectors—upstream (raw material production), downstream (manufacturing or processing), and retail—privatization should start with downstream industries. These industries are well-positioned to relay information to both upstream producers and retailers, improving decision-making across the supply chain. After privatizing downstream industries, the government should focus on retail and middlemen to ensure consumer information flows back to production efficiently. Finally, industries or firms with significant market power (potential private monopolies) can be privatized later because the benefits of improved information flow might be offset by the negative impact of monopoly pricing on consumer welfare.

being seen as valuable and potentially profitable. Additionally, profitable firms are less likely to undergo significant restructuring by new owners, unlike loss-making firms. Restructuring often leads to layoffs, which could trigger a public backlash against privatization, something that would be politically damaging to the ruling party. To avoid the political costs of unemployment and to maximize revenue, the government may opt to privatize profitable firms first, even if this contradicts the goal of maximizing efficiency. Likewise, the government should not privatize industries that already have employment difficulties (i.e., industries with low employment growth). Thus, firms in "trending" industries with large attraction to new employment will be privatized first.

Once firms are selected for privatization, the next theoretical concern is how to stage each sale. Should a SOE be sold all at once or in stages? (Schmitz, 2001) suggests that a mix of public and private ownership (partial privatization) could provide the best of both worlds, particularly when both cost and quality are crucial factors.[72] By using a staggered approach and initially setting sale prices below market value, governments may attract more buyers and build investor confidence (Perotti, 1995; Perotti & Guney, 1993). As confidence in the stability of government policies grows, they can sell more shares at higher prices. Such a gradual approach helps avoid market shocks and ensures successful privatization over time. Moreover, a partial privatization approach signals the government's commitment to not impose heavy taxes in the future, which is particularly desirable when the government's intention is unknown to the public.

Regarding the timing of each stage of privatization, while earlier studies assume that this variable is exogenously determined, K. Jiang and Wang (2012) present a model where the duration of each "lockup" period is determined endogenously.[73] This suggests that an optimal privatization timing strategy can be shaped by prevailing market conditions. For instance, during an economic downturn, shortening the lockup period could allow companies to sell shares earlier and access cash more quickly. Conversely, under more favorable macroeconomic conditions, a longer lockup period could help raise share prices, as it limits the number of shares available in the market. Likewise, using real op-

[72]Typically, large SOEs are sold in stages, with several months or even years between the sale tranches for specific companies.

[73]Lockup period means company shares cannot be sold for a while. After the lockup period ends, these shares are released and can be sold in the market.

tions theory, Brada and Ma (2007) show that it may be advantageous for the government to delay privatization until better market conditions emerge, such as higher share prices or improved economic conditions, similar to the logic of a financial option.[74] According to Che (2009), postponing privatization until both market conditions and the institutional environment are favorable can lead to improved firm performance, as the new private owners can operate under optimal conditions with the right incentives.

A number of studies explore hows various factors influence the pace of privatization. For instance, Zou (1994) finds that, if the state sector is large, meaning the government owns a significant amount of capital in the economy, privatization should take longer. In other words, if the costs of adjustment (i.e., unemployment) are high, the process should be slower. Zou (1994) also suggests that privatization should begin rapidly in sectors where SOE inefficiencies are greatest compared to the private sector but slow down over time as it progresses. Lee et al. (2020) and Sato and Matsumura (2019) noted that if an industry has many foreign private competitors, the government should slow the pace of privatization to protect domestic interests. In contrast, if the market is highly competitive with many domestic private firms compared to foreign firms, the government should increase the pace of privatization over time.

1.7 Conclusion

The discussion surrounding the ownership and performance of SOEs has evolved significantly throughout the 20th and 21st centuries. Since the late 19th century, state ownership has been justified on the grounds of correcting market failures, particularly in sectors with significant social externalities (World Bank, 1995, p. 36; Bortolotti and Siniscalco, 2004, p. 10). Later on, governments worldwide also used SOEs as a means to speed up industrialization and foster economic development (El-Naggar, 1989, p. 2; Toninelli, 2000, p. 11). Nevertheless, over time, inefficiencies in SOE management became increasingly apparent, leading to concerns about their financial sustainability and innovative

[74] However, this strategy carries the risk that conditions could deteriorate. Thus, Brada and Ma (2007) model allows governments to weigh the benefits of waiting for a better price against the costs of delay, such as ongoing inefficiencies in state ownership or worsening market conditions.

capabilities (Kikeri, 2022).

Theories of privatization, which emerged in the second half of the 1980s, have provided critical insights into the inefficiencies of SOEs. These theories prove that SOEs are chronically and inherently inefficient due to a lack of clear ownership, accountability, responsibility, and incentives to maximize profitability and productivity (Bortolotti and Siniscalco, 2004, p. 5; Shleifer, 1998; World Bank, 1995, p. 36). Even when the government's objectives are to maximize welfare, SOE managers often face weak oversight due to asymmetric information, incomplete contracts, and soft budget constraints. In cases where politicians, bureaucrats, and interest groups impose conflicting, distorted, non-commercial goals onto SOEs, this would further exacerbate economic inefficiencies (Niskanen, 1975; Shleifer, 1998). Privatization, as advocated by various economic theories, offers a solution to these inefficiencies because it can cut the link between the state and the firms (Boycko et al., 1996). Economic theories also suggest that the key to successful privatization is a well-established governance structure. As such, privatization is more likely to be effective in countries where institutional and regulatory frameworks are already well-established. In contrast, privatization in the context of institution-building is more prone to yield mixed or conflicting outcomes.

Building on these theoretical foundations, my thesis will proceed as follows. In the next chapter, Chapter 2, I will review empirical studies on privatization in transition countries and explore how the interplay between institutional maturity and reform strategies can shape privatization outcomes at micro and macro levels. In Chapter 3, I will delve into the specific historical contexts of the Vietnam privatization process from 1945 to 2018. By tracing Vietnam's transition from a centrally planned to a market-oriented economy, this chapter illustrates how economic, institutional, and external factors influenced privatization strategies and actual implementation. Then, in Chapter 4, I will evaluate the impacts of privatization on firm performance in Vietnam. I will test whether the theoretical benefits of privatization, such as improved efficiency and profitability, manifest in performance metrics, and more importantly, the factors that might affect these outcomes in the Vietnamese context. Finally, in Chapter 5, I will expand the analysis further by examining the relationship between

privatization and industrial concentration, with a particular emphasis on how the speed of privatization moderates this relationship.

Chapter 2

The impact of privatization in transition economies: A review of empirical literature

2.1 Introduction

In the previous chapter, I have reviewed major works in economic theories of privatization. I have also established that privatization came about as an inevitable method of enterprise restructuring, mainly because of the increasing inefficiencies of SOEs in the past. Theoretically, privatization might be an effective tool to improve firm performance because it can reduce political interference (Börner, 2004; Boycko et al., 1996; Robinson & Torvik, 2009a), impose fiscal discipline through hard budget constraints (Segal, 1998), clarify ownership rights (Hart et al., 1997), and better align managerial goals with those of shareholders (Laffont & Tirole, 1991; Shapiro & Willig, 1990). In this chapter, I turn to the empirical literature on privatization, with a focus on countries transitioning from centrally planned to market-oriented economies.

This chapter narrows its focus to transition economies rather than addressing the entire world for three reasons. *Firstly*, since this dissertation is about privatization in Vietnam, a country transitioning from central planning to a

market economy, a review of studies on privatization within similar contexts would provide essential background for the readers. Like many other transition countries, Vietnam undertook privatization within the context of a shift from central planning to a market economy. This transition is one of the greatest economic transformations in our history. It is unprecedented in both breadth and depth, dramatically affecting about one-third of the world's population, with a lasting impact on billions of lives. Thus, this transition offers a unique opportunity for a more holistic analysis of privatization in ways that would not be possible elsewhere.[1]

The *second* reason this chapter focuses on transition economies, particularly in relation to the speed of transition, is the importance of the transition debate and its far-reaching implications. Since this transformation hadn't occurred before, it involved a remarkably high level of uncertainty (Ellerman, 2003; Godoy & Stiglitz, 2005; Marangos, 2003). In the context where a system of law that protects private property rights as well as liquidity in both capital and financial markets was largely absent, no economic expert knew exactly how to design market reforms effectively (Jelic et al., 2003). What is at stake here, theorists would predict, is the existence of large transaction costs associated with moving into a new kind of system (Andreff, 2005; Marangos, 2003; Stiglitz, 1999). Amid this uncertainty, two distinct paths of reform began to take shape. The first approach can be characterized by rapid and decisive economic reforms, while the second features a more gradual, phased strategy (Godoy & Stiglitz, 2005). These two contrasting transition approaches led to markedly different outcomes across transition countries, and, at the same time, a vibrant debate in the literature about which strategies would be most suitable for long-term economic growth and development (see, e.g., Rodrik, 1993). For instance, Shirley and Walsh (2000) point out that Russia's large output collapse during the 1990s resulted from its rapid transition approach, while Stiglitz (1999) contends that China's gradual and deferred reforms led to relative success, evident in its impressive growth over two decades. Using the comparison between China and

[1]A transition from plan to market generally consists of 3 parts: liberalization, stabilization, and privatization. While liberalization involves removing government controls over prices, trade, and investment, stabilization policies aim to control inflation through monetary and fiscal policies. These are the prescriptions for much of the developing world under the Structural Adjustment Programs, as discussed in Chapter 1.

Russia, Ellerman (2003) also highlights how different transition strategies can profoundly influence economic outcomes.[2]

Why did the transition process yield such varied outcomes in different countries? To what extent are reform outcomes shaped by transition strategies? Do gradual reforms, as in China, lead to more favorable economic results? These questions have sparked intense debate over whether rapid or gradual reforms are better for long-term growth. This debate has far-reaching implications, not only for countries undergoing transitions but also for industrialized economies, where certain state-owned industries, currently insulated from competition and reliant on subsidies, may face similar transitions in the future. Due to these broad implications, this debate remains highly relevant today (Havrylyshyn et al., 2016; Kantorowicz & Spruk, 2024).

The *third* reason why I focus on privatization in transition countries rather than the whole world in this chapter is that, unlike privatization in other parts of the world, where it typically involves the sale of assets (Megginson & Netter, 2001), privatization in transition countries also involves a comprehensive process of institutional building. At the start of the transition, these economies inherited extensive state ownership as a central feature of their economic systems. Moreover, the gap between subsidized prices and actual costs led to significant resource misallocation in almost every sector of the economy (El-Naggar, 1989, p. 13). These countries thus lacked the legal, regulatory, and economic institutions necessary to support a private sector. As pointed out in Chapter 1, most economic theories agree that privatization may work better in countries with a strong institutional framework where private ownership, competition, and markets are well-established (Che, 2009; Glaeser & Scheinkman, 1996; K. Jiang & Wang, 2012; Radić et al., 2021). In the context of a weak institutional environment (e.g., ineffective legal frameworks, limited regulatory oversight, and inadequate financial infrastructure), the effectiveness of privatization may be diminished, and privatized firms might struggle to operate efficiently.

[2]Nonetheless, as I pointed out later in this chapter, such comparisons should be viewed with caution. Comparisons between two countries with different initial conditions, as in the case of Russia and China, can be difficult. Maybe China's higher growth than Russia should also be viewed through the lens of its stable political environment and its lower GDP per capita compared to Russia at the start of the transition. Moreover, maybe Russia was not so rapid in its reform strategy all the way through, and China wasn't a gradual reformer right from the start (see, e.g., Y. Cao et al., 1999; Havrylyshyn et al., 2016; Marangos, 2003; Stiglitz, 1999.

Another constraint on privatization in transition countries is the limited availability of private capital (El-Naggar, 1989, p. 16). As a result, second-best methods of privatization might be chosen. Sometimes, insider privatization was the only option when no external buyers were interested in the firm (Ellerman, 1993). In other cases, mass privatization was implemented to privatize a large number of firms within a short period of time (Sachs, 1992). While these unorthodox approaches may lead to more immediate ownership changes, they can also reinforce existing inefficiencies within firms (see, e.g., Blanchard, 1996; Debande and Friebel, 2004).[3] Given the potentially varying outcomes of privatization in transition economies, it is worthwhile to review studies in this area to address key questions, such as: What impact does privatization have on firm performance in transition economies? Is outsider ownership more effective than insider ownership? Are there differences among various privatization methods? Is foreign ownership preferable to domestic ownership? Even though there has been a large body of literature dealing with these types of questions (see, e.g., Megginson and Netter, 2001; Gakhar and Phukon, 2018; Radić et al., 2021 for a literature review), studies dealing exclusively with transition countries is rather limited, despite the fact that privatization potentially produces the most conflicting results here (Djankov & Murrell, 2002; Estrin et al., 2009; Iwasaki & Mizobata, 2017). For that reason, this chapter will also try to re-examine these questions in detail.

In transition countries, privatization is not only an opportunity to improve economic efficiency and increase state revenue, as it is in other parts of the world. It is also a one-off moment for a profound shift in resource control and redesigning the dominant ownership structures (King, 2003; Polevoy, 1998). Examining privatization in this context offers valuable insights into how firms in these economies survive and adapt to a completely new environment, and more importantly, how institutional contexts in the past shape current economic outcomes (see, e.g., North, 1992; Acemoglu et al., 2001).

[3]This is especially true when the new owners (former managers and employees) lack the capacity or incentives to improve firm performance as the government still holds a controlling stake in the privatized firms

2.2 The transition debate

Privatization in transition countries is very different from that in developed countries. Here, privatization often occurred in the context of broader institutional and economic reforms. This transformation reintroduced capitalist institutions at the macro level and reimposed the principle of rational decision-making towards profit maximization at the micro level. It involves an extremely complex process in which all kinds of systems, structures, rules, and customs in society were reconstructed that would fundamentally transform the entire economy (Jelic et al., 2003; Marangos, 2003; Sachs & Woo, 1994). As a result, this transition was conceived by many post-communist countries to be the ultimate action towards economic growth and development, as well as a break from the past.

Before transition, most SOEs in transition countries were either large or very large by ideological and practical design. When restructuring occurred, these giant SOEs began a process of breaking up, contributing to an unprecedented growth in the number of firms (Havrylyshyn & McGettigan, 1999). As a large number of new firms were founded, either de novo or by spinoffs, they competed with existing SOEs for market segments and filled new niches in supply and demand. In competitive markets, these firms would respond to market signals and incentives rather than commands from the authority. These were initially thought to be sufficient to create an environment that is conducive to boosting consumption and, subsequently, economic growth. Once transformation began, it was expected that the transition process itself would create a strong demand for a quality institutional environment.

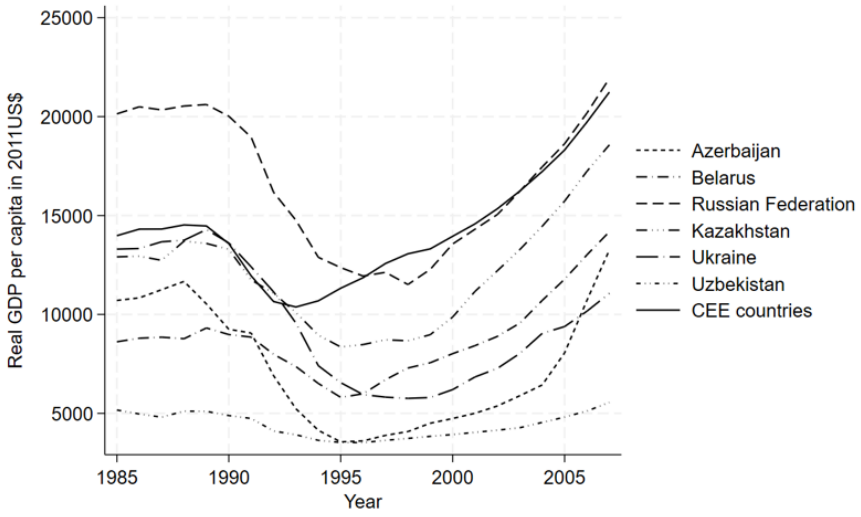
Yet, it is evident that this did not always happen, and the transition from socialism to capitalism is far from smooth. Despite initial optimism during the early phase of the transition, economic performance deteriorated in most countries. During the early phase of the transition (from 1989 to the mid-1990s), the poverty rate (people living on less than 4 dollars a day) for the former Soviet Union, Central and Eastern Europe, and the Baltic states combined increased more than tenfold (King, 2003).[4] With the exception of China and Vietnam, a

[4]Dewatripont and Roland (1996) and Murrell (1996) also found increased poverty rates in transition countries, while Milanovic (1998) found an increase in income inequality.

substantial decline of more than 30% of GDP per capita in 1999 from the pre-transition high in 1989 has been recorded for CIS and CEE countries combined (Rosefielde, 2001). Moreover, it has also been observed that there was a much deeper recession in CIS compared to CEE (see Figure 2.1),[5] a puzzle known as the "great divide" (Berglöf & Bolton, 2002).

This historic recession has raised several important questions in empirical literature: Why did the transition result in significant economic decline in some countries, but less so in others? Is this decline circumstantial or man-made? If it is justified by initial conditions, what circumstances explain the differences across countries? If it is due to policy choices, what is the most appropriate policy strategy for a smooth transition from a centrally planned to a market economy?

Figure 2.1: The evolution of GDP per capita (1989-2007) in selected transition economies



*Notes: CEE countries include Poland, Czech Republic, Slovakia, Hungary, Slovenia, Estonia, Latvia, Lithuania, Romania, Croatia Sources: author's calculation based on Maddison Historical Statistics Project (Inklaar et al., 2018).

There are several reasons why most countries experience a period of depression during the early phase of transition. One argument is that the U-shaped

[5]As evident from Figure 2.1, GDP per capita began to recover around 1993-1994. This is likely because foreign investment and export to Western Europe started to increase in CEE countries around this time.

decline in output during the early transition period is, to some extent, inevitable due to price deregulation. When prices were rapidly deregulated, previously suppressed market forces were unleashed. This sudden price deregulation and economic liberalization caused an unprecedented reallocation of resources, specifically labor and capital, which exceeded the economy's capacity to absorb and adapt. The quick shift disrupted existing economic structures that had been shaped by decades of central planning, leading to a mismatch between available resources and new market demands (Popov, 2007).[6] The nature of the recession was thus an adverse supply shock (i.e., deteriorating terms of trade) caused by the rapid liberalization of prices. Under central planning, many industries operated with artificially low input prices, excessive employment, and price controls that did not reflect real production costs. The removal of these controls meant that previously affordable inputs became more expensive, squeezing profit margins and making production impossible for many firms. Not surprisingly, industries particularly reliant on low-cost inputs (e.g., light industry) suffered disproportionately, leading to a steep decline in output through the so-called "creative destruction" process. Other studies, such as IMF (2000), also attribute the initial output decline to the strong economic liberalization measures implemented during this time, including stringent macroeconomic policies aimed at controlling inflation.

Another argument is that the differences in growth performance were largely due to initial conditions (i.e., pre-transition political and economic institutions). The main idea behind this argument is that the more distorted these conditions were before the transition, the more severe the subsequent recession (De Melo et al., 1996). These distortions include, for example, over-militarization and excessive degree of industrialization, which suppressed the development of service sectors (Havrylyshyn & van Rooden, 2003). It also includes closed trade flows, an excessively large size, and poor performance of SOEs. The greater depth of recession in the CIS region can thus be justified by the more pronounced distortions in the market structure and economic institutions here (Popov, 2007). These distortions further led to a higher level of degradation of political institutions in CIS countries in their ability to ensure social order and check the shadow

[6]Likewise, Kornai (1994) argued that a period of recession would be necessary before any transformation from a soft to hard budget system.

economy. A vast wealth of natural resources could further worsen the outcome (Fish, 2005).[7] However, the negative effect of initial conditions on growth seems to decline over time (Berg et al., 1999; Havrylyshyn & McGettigan, 1999).

If pre-transition institutions can explain the variance in privatization's outcome across transition countries, how does one explain the variation in economic performances in intra-CEE or intra-CIS countries, where initial conditions were rather similar? Take countries in the CIS region, for example. As shown in Figure 2.1, the output collapse in Russia was the most pronounced among the countries in CIS. What factors account for this disparity between Russia and the other countries in CIS? Empirical studies have found that, in addition to initial conditions, policies such as macroeconomic stabilization, economic liberalization, and privatization strategies also play a significant role in explaining the variations in recovery and growth patterns in transition economies (Berg et al., 1999; Havrylyshyn & van Rooden, 2003; Wolf, 1999).

In Russia, policy in the early transition period was not only aimed at privatizing SOEs but also at actively and rapidly dismantling the structures and resources inherited from the Soviet Union (Sachs, 1992). This included policies in the early 1990s that indirectly encouraged the sale of assets at low prices or the distribution of shares among the masses (voucher privatization).[8] Such measures stemmed partly from an ideological drive to reject the remnants of central planning. As evident from Table 2.1, the rate of change in the approximate share of the private sector in GDP for Russia was the highest among CIS countries. In Russia, the share of the private sector increased by about 12 times between 1989 and 1996, while in other countries, these changes were generally slower, reflecting differences in the pace and extent of transition efforts in each country in the CIS region.

[7]Further, the distortions of central planning were also reflected in the Soviet measure of output with Net Material Product that exaggerated the real level of output because of the distortions of the central planning system, while the current calculation of GDP fails to account for shadow economic activities (Havrylyshyn et al., 2016).

[8]The "loans-for-shares" program in 1995 further accelerated this concentration of wealth, as prominent bankers and political allies were able to acquire stakes in major raw material enterprises, such as oil and gas companies, at prices far below their market value.

Table 2.1: Approximate share of the private sector in GDP in selected CIS economies (%)

Country	**1989**	**1996**
Azerbaijan	10	25
Belarus	5	15
Kazakhstan	5	40
Russia	5	60
Ukraine	10	50
Uzbekistan	10	40

**Source:* Myant and Drahokoupil (2010, p. 252)

The abovementioned case of CIS countries suggests that the pace of transition, particularly the speed of privatization, may have influenced the severity of the output collapse during the transition period. Faster reformers, such as Russia, could face a steeper decline in output due to a more abrupt shift from a centrally planned economy to a market-oriented one, resulting in a substantial structural break from previous economic practices. Slower reformers, such as Belarus, Ukraine, and Uzbekistan, generally experienced a much less severe decline in GDP per capita.

Currently, there is a growing consensus that initial conditions matter, but policies even matter more (Berg et al., 1999; Havrylyshyn & van Rooden, 2003; Wolf, 1999). For instance, Havrylyshyn and van Rooden (2003) found that sound economic policies are the primary determinant of recovery and subsequent growth in transition economies, as the effects of initial conditions seem to wane over time. However, there is still a heated debate among empirical studies of growth in transition economies about what constitutes "good" or "bad" policy (Hamm et al., 2012; Havrylyshyn & van Rooden, 2003). Central to this debate is the political economy issue related to the irreversibility of privatization, which is directly linked to the speed and depth of implementation. Based on this view, two schools of thought have developed: one advocating fast reforms, and the other supporting a gradual, staged approach to transition (Dobra & de Vries, 2016; Ellerman, 2003; Godoy & Stiglitz, 2005; Hamm et al., 2012; Popov, 2007;

Schmidt, 2000). In the following subsections, I will attempt to discuss these views in more detail and the empirical results to date.

2.2.1 Shock privatization

The shock therapy approach to transition was first introduced in 1990 by the governments of Poland, Hungary, and Czechoslovakia (Ellerman, 2003; Kantorowicz & Spruk, 2024; Marangos, 2003).[9] Shock therapy, also known as big-bang or *blitzkrieg* policies, includes stabilization, liberalization, and privatization measures that were introduced to improve economic efficiency in newly established capitalist economies (King, 2003; Polevoy, 1998). Advocates of shock therapy policies, such as Jeffrey Sachs, Anders Åslund, Lawrence H. Summers, and Andrei Shleifer, argued that the economic conditions in former socialist and communist countries were so dire that a rapid and comprehensive reform program was necessary to restore order. These economies in transition, suffering from severe macroeconomic imbalances and political turmoils, lacked the luxury of gradual reform; instead, they required a swift and decisive course of action (Lipton et al., 1990; Thomas & Wang, 1997).

A key aspect of the shock therapy approach was the rapid privatization of SOEs (King, 2003; Polevoy, 1998). This rapid privatization process was intended to apply universally across all non-strategic SOEs, rather than on a case-by-case basis, typically through voucher privatization (Marangos, 2003). Given the large number of SOEs and the limited development of capital markets at the time, rapid privatization was seen as the only viable option; otherwise, the privatization process would have no end in sight (Marangos, 2003; Sachs, 1992).

Moreover, the main argument for rapid privatization is that a case-by-case approach could become "easily politicized" (Marangos, 2003). Speed was essential to prevent self-interested groups from having sufficient time to coordinate efforts to delay or even reverse the reforms (Frydman et al., 1999, p. 89). For example, workers and managers in SOEs would be incentivized to manipulate the privatization process in ways that favor their interests (Sachs, 1992). A

[9]Shortly after, other countries followed suit, such as Albania (1990), Lithuania (1991), Bulgaria (1990), Estonia (1992), Russia (1992).

gradual approach would give them time to organize and form a political force capable of halting privatization efforts or even rolling back the tide to avoid layoffs and maintain state subsidies (Lipton et al., 1990; Marangos, 2003). For such reason, privatization must be implemented as quickly as possible (Polevoy, 1998; Sachs, 1992).

Prolonging the privatization process also risks missing the "window of opportunity" for achieving meaningful structural changes (Lieberman, 2007, p. 12). A period of "extraordinary politics" is necessary not only to consolidate any early successes but also to build political support for a market economy (Stiglitz, 1999). Rapid privatization was crucial because it could "decrease the political power of the state sector" (King, 2003).

In Poland, for instance, the government initially attempted case-by-case privatization, but the process proved extremely burdensome. The requirement for multiple approvals to initiate privatization led to "open-ended wrangling," lobbying in Parliament, delays by the Ministry of Industry (which was reluctant to relinquish its stake in enterprises), and self-serving maneuvers by managers and workers' councils (Sachs, 1992). Prior to big-bang privatization, Poland's economy was dominated by the state, largely closed to the outside world, burdened by distorted pricing, faced near hyperinflation and chronic shortages of goods and services (Kattuman & Domañski, 1997). As a result, workers and managers were highly short-sighted, focusing on wage increases, asset-stripping, and job protection rather than long-term restructuring. In this environment, marketization without privatization was proven to be ineffective (Woo, 1997, p. 320). After case-by-case privatization had been tried, it became clear that privatizing SOEs was necessary.[10]

In Russia, there was significant concern that if the new government could not privatize as quickly as possible, the old communist regime might regain control (Shleifer & Treisman, 2000). During the early years of transition, privatization was viewed as "urgent and politically vulnerable" (Lipton & Sachs, 1992, p. 71). Therefore, rapid privatization was seen as essential to establishing an irreversible, market-based economy (Summers, 1994, pp. 252–253). By mid-1995, after three years of mass privatization, about three-quarters of Russian

[10]Consequently, approximately 50,000 shops were leased or sold, with more than 500 small SOEs were privatized (Sachs, 1992).

industrial SOEs were already in private ownership (Boone & Fedorov, 1997, p. 180).[11] If privatization were implemented slowly, it would result in a "political battle over privatization," which would eventually lead to a "stalemate in the entire process, with the devastating long-term result that little privatization takes place at all" (King, 2003).

2.2.2 Gradualist approach

The advocates of the gradualist approach argue that privatization should be implemented slowly for four main reasons. *First*, rapid privatization has large costs, such as sinking production levels, economic crises, widespread unemployment, and high inflation (Godoy & Stiglitz, 2005). This is because, as discussed above, rapid privatization generated a shock on the supply side, particularly in "structurally distorted industries" that previously relied on state subsidies (Popov, 2007). Removing subsidies too fast left firms in these industries with insufficient time to adjust and restructure, making them unable to meet required production levels. Friedman and Johnson (1996) found that such adjustment costs by firms increased with the speed of reforms.

Second, the gradualist position argues that, without a robust institutional framework, privatization in a weak institutional environment would lead to chaos, asset stripping, corruption, rising inequality, and widespread social unrest (Ellerman, 2003; Godoy & Stiglitz, 2005). Hence, proponents of gradualism assert that a strong institutional framework and good governance should be established before privatization takes place. Moreover, according to Stiglitz (1999), rapid privatization without a proper institutional framework may create a system conducive to rent-seeking behaviors, as economic agents have both the incentive (information asymmetries) and the opportunity (absence of an effective governance framework) to engage in predatory practices.[12] Domestically, a high interest rates environment would discourage investments needed for effective and successful restructuring, while internationally, the liberalization of capital markets would lower the cost of transferring capital abroad. Such an

[11] Boycko et al. (1993, p. 148) noted that voucher privatization in Russia successfully established a market economy, reduced shortages of goods, and improved product quality (see also Chubais and Vishnevskaya, 1997; Marangos, 2003)

[12] As Godoy and Stiglitz (2005) put it, "incentives matter, but if there are wrong incentives in place, individuals will be motivated to strip assets rather than create wealth".

environment may lead to widespread asset stripping and the leakage of valuable resources out of the country. Therefore, to prevent asset stripping, robust institutional and legal frameworks should be fully operational before privatization occurs.

Third, the advocates of gradualist approach believe that, because rapid privatization may cause a sharp decline in output, gradual reforms can and should be used to avoid such declines. This can be done by continuing to subsidize the existing SOEs while at the same time encouraging the growth of the non-state sector (Sachs & Woo, 1994). Before privatization, the government should establish a vibrant private sector where non-state firms can operate freely (Polevoy, 1998). Simultaneously, inefficient and unprofitable SOEs should undergo restructuring prior to privatization, with progressively tighter budget constraints to provide them time to adjust to the new economic environment and thereby limit the extent of output decline. In the same vein, (Roland & Verdier, 1999) argued that the disorganization effects (e.g., the time to find new clients and suppliers) caused by the immediate price deregulation could reduce output and investment in the short term. To avoid this negative effect, a gradual, dual track aproach to price liberalization should be implemented. In this dual price system, SOEs can choose between market and state prices for both inputs and outputs, allowing them to achieve socially optimal outcomes in the end (Lau et al., 1997).

Finally, proponents of gradual reforms often argue that rapid privatization and premature privatization reduce the role of the state during the transition period (Murrell, 1992). Rapid privatization damaged the strength of the state precisely when a strong regulatory structure is most needed (Hamm et al., 2012). When the state is weak, it cannot enforce production quotas under the dual price system, and SOEs may struggle to adapt swiftly to the new market price system and to secure new clients, potentially leading to shortages of goods and services (Murphy et al., 1992). Moreover, weak states simply lack the capacity to implement shock therapy policies, which would undermine the effectiveness of their future policies (Marangos, 2003).

One often-cited example is the contrast between China and Russia. Burawoy (1996), for instance, compares the transition experiences of these two countries

and shows that Russian firms performed poorer because privatization reduced the role of the state at a time when private property rights had not yet been defined and protected, while soft budget constraints and state subsidies were still in place. This adverse condition resulted in a vacuum of power, which, according to Burawoy, led to "economic involution" in Russia.[13] China, on the contrary, was able to harden the budget of the local governments even before privatization policies were introduced in 1998 (Y. Cao et al., 1999). In this regard, China's gradualist strategy allowed the Chinese government to build a market system based on pre-existing state structures, while Russia's simultaneous reform of economic and political institutions deprived Russian policymakers of essential governance tools.

The appeal of a strong government lies in its ability to stand firm against the multidimensional crises that afflict the transition countries and protect the general population from unnecessary economic and social disruptions. In Russia, the absence of a strong state at the onset of reforms led to output collapse and rising inequality,[14] while in China, gradual reforms and a dual prices system helped SOEs to meet production quotas, and even make profits as they sold goods at market prices, which may contribute to an output expansion in China during the transition (Popov, 2007). For that reason, Ellerman (2003) argues that "the contrast between the Russian and Chinese transitions is probably the best that one could ask for to contrast a strong state with a weak one." Stiglitz (1999), using the same comparison, recommended that big-bang reforms should give way to a more gradual liberalization and institutional development that would make the transition less painful.

2.2.3 Rapid vs. Gradual Reforms: Which Approach Better Promotes Growth?

At this point, it is crucial to recall the question raised in the Introduction of this Chapter: Are gradual reforms superior to rapid reforms, or have countries that chose the rapid and early reform path done better?

While the contrasting outcomes of Russia and China, the two largest tran-

[13] See also Stiglitz (1999) for a comparison between China and Russia.

[14] From 1989 to 1999, Russia doubled its inequality measured by the Gini coefficient (Godoy & Stiglitz, 2005; Stiglitz, 1999).

sition economies, may provide some insights (see, for example, Burawoy, 1996; Ellerman, 2003; Stiglitz, 1999), these cases alone cannot directly answer this question. The differences in reform strategies adopted by China and Russia may reflect distinct institutional, economic, and historical contexts specific to each country (Sachs & Woo, 1994). Moreover, other policies (e.g., social, innovation, and foreign policies) may also play a role in shaping the success of the transition from plan to market economy, not just the speed and timing of economic reforms (Godoy & Stiglitz, 2005). Finally, the actual implementation of reforms also matters, as some countries may not adhere precisely to a rapid or gradual approach.[15] The comparison between China and Russia is, therefore, only offering partial insight into the broader question of reform efficacy.[16]

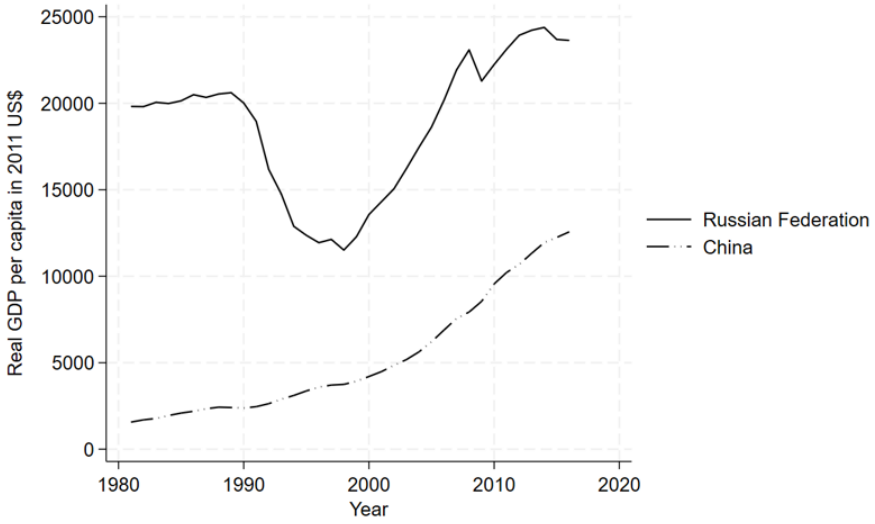
A study by Krueger and Ciolko (1998) was among the first to recognize that the pace and timing of reforms could be an endogenous variable affected by the very same initial conditions that correlate with economic growth. The collapse of socialism in CEE countries and, later, communism in the former Soviet Union created a vacuum of power in these regions. In Russia, for example, political instability during the early 1990s motivated the newly elected government to implement mass privatization schemes in hopes that transferring public assets to the private sector rapidly would transform the economy to a market-based economy, restore order, and avoid attempts to block or reverse the reforms (Polevoy, 1998; Sachs, 1992). On the contrary, the transition from plan to market in China was under the full control of the Chinese Communist Party, which allowed its leaders to adopt a more stable and selective process of privatization (Y. Cao et al., 1999). In China, the state sector was protected and continued to receive state subsidies, at the same time policies encouraging private sector development were put in place (Polevoy, 1998). Intuitively, countries with relative political and economic stability, like China, might be less inclined to adopt rapid privatization than those experiencing instability, while countries facing political instability, like Russia, are unsurprisingly more

[15]For example, some studies argue that Russia did not really took a big-bang approach but rather a more gradual implementation in the long run, while China, a well-known gradualist reformer, did involve with some forms of shock therapy during early transtion periods (Marangos, 2003; Stiglitz, 1999).

[16]Last but not least, China and Russia may not be so different after all: they both have instances where firms suffer from asset stripping by self-interested managers and powerful local leaders who prioritize consolidating their own authority over fostering a market-driven economy (Sachs, 1992).

inclined toward rapid privatization and often face worsening economic outcomes as a result. Additionally, China was relatively less developed than Russia at the start of its transition, giving China an advantage as a "latecomer" and enabling it to achieve higher growth than Russia (see Figure 2.2).

Figure 2.2: Real GDP per Capita in Russia and China



*Note: Real GDP per capita is measured in constant 2011 US dollars. The data illustrate the differing economic trajectories of Russia and China, with a sharp decline in Russian GDP per capita following the collapse of the Soviet Union and subsequent recovery, compared to China's continuous, gradual growth. Sources: Author's calculation based on Maddison Historical Statistics Project (Inklaar et al., 2018).

After Krueger and Ciolko (1998), several empirical studies examining the relationship between market reforms and economic growth confirm that when variables capturing initial conditions are added to the regression model, the correlation weakens (see, e.g., Heybey and Murrell, 1999; Falcetti et al., 2002). Heybey and Murrell (1999), for instance, found that initial conditions significantly influence economic performance during transition, thereby weakening the direct impact of liberalization speed on growth. Falcetti et al. (2002) showed that once initial conditions are accounted for, the effect of reform on growth becomes less pronounced. However, both studies mentioned above found that the effects of initial conditions on growth tend to wane over time.

Therefore, the differences in economic outcomes between countries may not

result merely from the reform process but may also be due to initial conditions (e.g., the institutional and economic legacy left by the central plan system), and other path-dependent characteristics (e.g., political culture, social capital, level of industrialization, demographic factors, and so on) (Åslund et al., 1996; Marangos, 2003; Sachs & Woo, 1994).

Apart from initial conditions and market reform strategy (i.e., timing, sequencing, pacing), there are also other types of policies that can affect both immediate and long-term growth trajectories, such as social policies, innovation policies, and foreign policies. Innovation policies, for example, support the adoption of new technologies, which are essential for increasing productivity and staying competitive in a globalized economy. Government policies that foster innovation can promote economic diversification and open new growth avenues, particularly important for transitioning economies moving from low-value-added industries to more advanced sectors. In this regard, China is clearly superior to Russia, both in terms of quantity and depth of innovation policy (Fu et al., 2016; Klochikhin, 2012; P. Wang & Li, 2021). In addition to innovation policies, other policy areas also play a critical role in shaping growth trajectories. For instance, trade policies illustrate the stark contrast between China and Russia's approaches to economic development. China implemented a strategy focused on trade openness and transforming itself into an export-oriented economy, leveraging global markets to drive industrial growth and economic diversification. In contrast, Russia pursued a less open trade strategy, placing greater emphasis on resource extraction and domestic consumption, which limited its ability to capitalize on the benefits of globalization.

Additionally, the actual implementation of market reforms during the transition process may also affect growth (Godoy & Stiglitz, 2005). In this aspect, Russia's stabilization program can be considered much less comprehensive than that of China. While Russia primarily limited the amount of money circulating in the system to stabilize the economy, China implemented various measures, including a dual price system, centralized fiscal policies, exchange rate management, and an extensive agricultural sector reform through the Household Responsibility System to ensure food security (Marangos, 2003). Thus, during the early stages of market reforms, China's approach to reform was much

more holistic than that of Russia, as state authority in China was significantly stronger than in Russia at that time. A strong state allowed China to establish a market-based economic system while still maintaining the legacy of the central plan system, thereby avoiding the large collapse in output experienced in Russia, whose state was weaker and more fragmented during the early transition.

Therefore, China, often calling itself a gradual reformer, has not always been gradual in its approach to reform. In fact, China, within a short period of time, adopted a form of shock therapy during the early phase of its reform, as a large number of market-oriented mechanisms were introduced in areas lacking the necessary institutional conditions (Balcerowicz, 1995, pp. 166–185; Y. Cao et al., 1999).

Russia, on the other hand, a country often associated with a big-bang approach to transition, may actually choose a more gradual way of implementing shock therapy (Marangos, 2003; Stiglitz, 1999). Some even claim that the "real" shock therapy was never implemented in Russia, but rather a more gradual process, when compared with the decisive and rapid actions taken in the Czech Republic, Poland, or Estonia (see, e.g., Marangos, 2003; Sachs, 1997). However, other studies provide a more nuanced view and argue that rapid reforms in Russia did occur between 1991 and 1993, but these were not sustained, as some of the reforms initiated by Yegor Gaidar were reversed after he left office (Havrylyshyn et al., 2016; Marangos, 2003).[17]

For that reason, it might be difficult to summarize the transition debate in a single descriptor of "shock therapy" versus "gradualism"; instead, there should be more than two classifications of transition strategy. Havrylyshyn (2006, p. 10) was among the first to propose that there should be five categories for early reform strategies (see Table 2.2). The first group of reformers is "sustained big bang," such as the Czech Republic and Poland. Countries in these groups adopted a rapid approach to reform (e.g., rapid price deregulation, rapid trade liberalization, and rapid large-scale privatization), and the reform was sustained over the years. The second group, "Advanced start/steady progress," also consists of rapid reformers with sustained progress, but countries in this category

[17] After Gaidar left office, Russia abandoned the voucher privatization scheme earlier and adopted a more "illegitimate" privatization method after 1995, known as the "loans-for-shares" scheme. In this notorious method of privatization, the government allowed wealthy capitalists to create their own banks to lend them money to buy state assets (Stiglitz, 1999).

started to reform before the collapse of communism in 1989. Those countries include Croatia, Hungary, and Slovenia.

The third group, "aborted big bang," includes countries that initially adopted a rapid reform approach but later shifted to a more gradual pace, as in the case of Russia discussed above. The "aborted" nature of this approach may be attributed to the fact that, due to poor economic outcomes, some governments that initially implemented shock therapy policies lost power after a single term. The next governments, often led by former communists, reversed the course of reforms and adopted a more gradual approach to transition (Marangos, 2003).

The fourth category, "gradual reforms," refers to countries that began their reforms relatively late and did not pursue deep reforms beyond the late 1990s, such as Romania and Ukraine. Reforms in this category are also slower, more selective, and spread out over time (Popov, 2000; Roland, 1994). The fifth and final group, "limited reforms," includes countries that implemented minimal market reforms, like Turmenistan, Uzbekistan and Belarus.

Based on this classification, several studies explore the long-term effects of each reform strategy on economic performance. Two notable studies are Havrylyshyn et al. (2016) and Kantorowicz and Spruk (2024). Contrary to the findings of studies from the 1990s that generally viewed rapid privatization as the cause of significant social and economic pain (see, for example, Dewatripont and Roland, 1996; Milanovic, 1998; Murrell, 1996), these studies present additional empirical results.

Havrylyshyn et al. (2016) show that, after 25 years, early and rapid reformers significantly outperformed gradual reformers, both in GDP per capita and the United Nations Human Development Index. While rapid reformers initially faced output declines, worsening welfare, and widening income gaps, these issues went away once output recovery began. Since early reformers were the first to recover, they were the first to reap the benefits of transition: higher incomes per capita, and access to a broader variety of goods.[18] On the other hand, gradual reformers are not only lagging behind economically, but they're also performing less impressively in various social indicators. Most interestingly, they have also

[18]In many CEE countries, for example, GDP began to recover as early as 1993 and 1994. FDI started to flow in by the mid-1990s, accompanied by notable export growth and diversification toward Western Europe during the same period.

ended up with poorer institutions.[19]

A recent study by Kantorowicz and Spruk (2024) evaluates the long-term impact of shock therapy versus the gradualist approach on economic growth in transition economies for the period from 1980 to 2016. The study uses synthetic control methods to estimate the missing counterfactual scenario for each of the five reform strategies, as presented in Table 2.2. Regarding the first group, "sustained big bang," their results show that it is the most effective reform strategy, as the process was able to create the most substantial and permanent improvements, likely due to a structural breakup in growth trajectory. In the case of "advanced start/steady process" reformers, countries in this group only experienced insignificant gains in growth compared to the counterfactuals. "Aborted big bang" and "gradual reforms" seem to produce the worst results in terms of growth, with growth of countries in these groups permanently lagging behind that of countries that undertook faster and earlier reforms. The final group, "limited reforms," experienced statistically insignificant change compared to the missing counterfactuals, as in the case of "advanced start/steady process reform."

[19] As the study by Havrylyshyn et al. (2016) pointed out, the rationale of countries that adopted a gradual strategy was to implement reforms slowly to ensure that institutions could develop alongside economic changes. Yet, they ultimately ended up with weaker institutions than those countries that implemented rapid, early reforms without prioritizing institutions initially. This indicates that the governments that adopted gradual approach might have been "less than sincere." (see also Hartwell, 2013)

Table 2.2: Transition countries by reform strategies.

Country	**Year started reforms**	**Type of transition**
Albania	1990	Aborted big bang
Armenia	1992	Gradual reforms
Azerbaijan	1992	Gradual reforms
Belarus	1992	Limited reforms
Bulgaria	1990	Aborted big bang
Croatia	1992	Advance start/steady progress
Czech Republic	1990	Sustained big bang
Estonia	1992	Sustained big bang
Georgia	1992	Gradual reforms
Hungary	1990	Advance start/steady progress
Kazakhstan	1992	Gradual reforms
Kyrgyzstan	1992	Aborted big bang
Latvia	1992	Sustained big bang
Lithuania	1991	Sustained big bang
Macedonia	1992	Aborted big bang
Poland	1990	Sustained big bang
Romania	1990	Gradual reforms
Russia	1992	Aborted big bang
Slovakia	1990	Sustained big bang
Slovenia	1992	Advance start/steady progress
Tajikistan	1992	Gradual reforms
Turkmenistan	1992	Limited reforms
Ukraine	1992	Gradual reforms
Uzbekistan	1992	Limited reforms

**Source:* Adapted from Kantorowicz and Spruk (2024). The five groups of reform strategies include (1) Sustained big-bang, (2) Advanced start/steady progress, (3) Aborted big-bang, (4) Gradual reforms, and (5) Limited reforms

Kantorowicz and Spruk (2024)'s study has three implications. First, it shows that reform strategy and its effects on economic growth remain a lively discussion in the literature. Second, it highlights the potential for employing increasingly sophisticated econometric techniques that may tackle the most critical issue in the literature: causal inference.

Third, in classifying reform strategies, there exists a potential threat of misclassification. While the classification of five reform strategies helps in identifying distinct effects across countries with slightly different reform approaches, it also introduces the possibility of mislabeling. For instance, Kantorowicz and

Spruk (2024) categorize Poland as a "sustained big bang" reformer; however, other sources argue that Poland transitioned to a gradual approach on September 19, 1993, following the electoral defeat of the shock-therapy government (see, for example, Marangos, 2003).[20] Therefore, Poland should be classified as an "aborted big bang" reformer.

On the other hand, a gradual reformer such as Kazakhstan did in fact implement some forms of shock therapy during their early transition periods in the late 1980s and early 1990s. After gaining independence in 1991, Kazakhstan initially faced significant economic problems. The government here adopted a series of radical market reforms that included immediate price liberalization and the large-scale privatization of SOEs, which are elements associated with shock therapy (Abazov, 1997). These reforms led to a sharp contraction in the Kazakhstan economy and a steep decline in its GDP per capita between 1991-1997. Thus, while Kazakhstan pursued gradual reforms over the longer term, its early experiences included elements typical of shock therapy. As in the case of Poland, it is also possible to classify Kazakhstan as an "aborted big bang" country.

Given the potential for misclassification inherent in a five-category framework, I conducted an analysis utilizing a two-category classification. Specifically, I employed the same synthetic control exercises as in Kantorowicz and Spruk (2024) to investigate whether countries implementing rapid and early reforms experience better long-term growth outcomes compared to those that adopt gradual and delayed reforms. Nonetheless, instead of a five-category reform strategy classification, in this analysis, I grouped "sustained big bang," "advanced start/steady progress," and "aborted big bang" into a single category labeled "early and rapid reformers." Next, I classified "gradual reforms" and "limited reforms" as "slow and delayed reformers." While this binary juxtaposition carries the risk of oversimplification, it allows me to directly address the question posed in the Introduction: Did countries that implemented market reforms early and rapidly achieve better outcomes in terms of overall economic growth?

[20] In Poland, wage deregulation did not occur; in fact, wage controls were reinforced. Interest rates were significantly increased from their previously low real levels, though they were not completely liberalized during the initial phase. While quantitative restrictions on foreign trade were largely removed, customs duties remained in place, albeit at lower rates. The prices for energy and other utilities were adjusted to reach equilibrium gradually, rather than through a single large increase (Marangos, 2003).

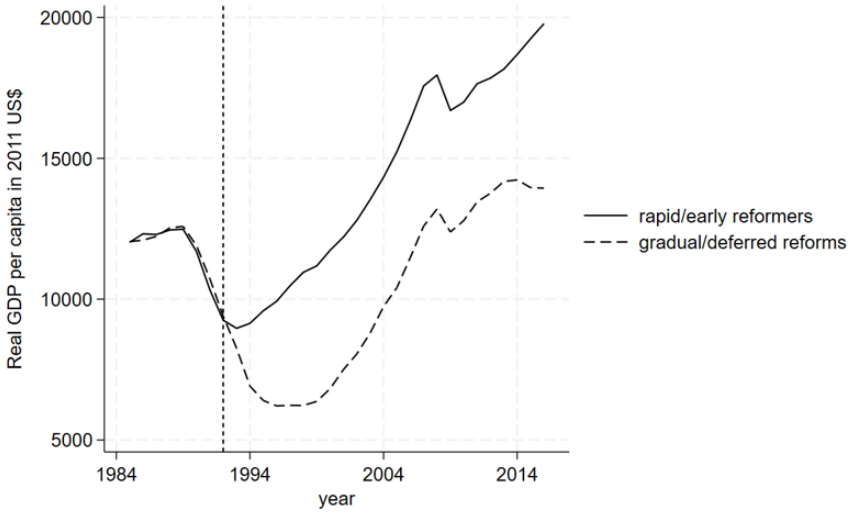
The synthetic control estimated growth effect of the two contrasting reform strategies (rapid/early vs. gradual/deferred reforms) are shown in Figure 2.3. Before different reform approaches took effect, the solid line (rapid and early reformers) was very close to the dashed line (slow and delayed reformers). This suggests that the synthetic control method was able to accurately recreate the counterfactual trajectory for the rapid/early reformers based on the behavior of the slow/delayed reformers, indicating similar economic conditions before the two groups diverged in their reform strategies.

And then, around 1993, the trajectories of growth of countries with different reform strategies started to diverge. Countries that decided to delay reforms and took a more gradual approach continued to experience a sharp decline in GDP per capita until the late 1990s. In contrast, those that adopted more rapid and early reforms began to recover as early as 1993-1994.[21]

As evident in the widening gap between the treated and synthetic lines, rapid and early reformers achieved higher GDP per capita than they would have with a slower reform approach. The divergence between the two lines after 1993-1994 highlights the impact of the reform approach on overall economic outcomes. Specifically, rapid/early reformers exhibit significantly stronger economic growth than gradual/deferred reformers, a trend that persisted even after the Global Financial Crisis of 2007-2008. This finding suggests that early, decisive reforms may have created a more conducive environment for sustained economic growth in the long run.

[21] This empirical evidence is perhaps in line with Marangos (2003)'s empirical observation that GDP started to recover in CEE countries, most of which are rapid and early reformers, around 1993-1994, as trade with Western European countries was initiated.

Figure 2.3: Synthetic control growth effects of reforms in transition economies.



**Note*: Rapid/early reformers include: Albania, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Slovakia, Slovenia, Kyrgyzstan, and Russia. Gradual/deferred reformers include: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Romania, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. GDP data are retrieved from the Maddison Historical Statistics Project (Inklaar et al., 2018). See Appendix Table 2.1 for unit weights of the synthetic control group.

The debate between rapid and gradual reformers seems to be settled in favor of the former. Empirical studies show that early and rapid reforms may be the best path for countries in transition, as such a reform approach may produce positive and long-lasting effects that survive a series of external shocks (Balcerowicz, 2003; Blanchard, 1997; De Melo et al., 1996; Fischer et al., 1996; Gomułka, 2016; Havrylyshyn, 2007; Sachs, 1996; Svejnar, 2002). Before the positive changes occurred, there was often a "depression" period, but it was only temporary before higher rates of growth kicked in. In fact, the faster the speed of the transition process, the more robust the output recovery (Havrylyshyn et al., 2016; Marangos, 2003; S. Parker et al., 1997). On the other hand, gradual and delaying reforms would lead to illegal speculation, misallocation of state resources, ambiguous property rights, poorly functioning markets, distorted incentive systems, a closed economy, high inflation, shortages of goods and services, long-lasting recession, and ultimately, social unrest (Åslund, 2001;

Boycko, 1991; Ericson, 1991).[22]

Another issue related to the transition debate is the sequencing of reforms. Advocates of gradualism have sometimes contended that institutional development should precede market liberalization so that the latter could be more effective. Nevertheless, in virtually all ex-communist and ex-socialist countries, institutional development lagged behind economic liberalization, regardless of the pace or timing of the reforms. In other words, no transition country managed to establish robust institutions before implementing economic liberalization, as good institutions (like those found in rich countries) require decades or even centuries to develop (North, 1990, pp. 107–109).[23] On the contrary, from the late 1990s, some countries began accelerating institutional development, and these were the same countries that had moved earliest and most rapidly in economic reforms and privatization during the early 1990s, such as Poland, the Czech Republic, and Estonia. Therefore, while institutions are important to economic growth (Acemoglu et al., 2001; Brunetti et al., 1997; Grogan & Moers, 2001; Moers, 1999; Stiglitz, 2000), they may be more important for sustaining long-term growth than for jumpstarting recovery after a recession. A fully developed institutional framework might not be necessary at the start of the transition (Havrylyshyn et al., 2016). What is needed during early transition periods is decisive, rapid economic reforms. Delaying market reforms only brought about political struggles among various groups within the state structures. For that reason, market reforms should precede institutional reforms, or at the very least, implementation should not be delayed until a strong institutional framework is in place.

As the transition debate has largely settled in favor of rapid market reforms, what are the avenues for future research in this area? In this regard, it is possible to identify three underexplored issues in the extant literature. Firstly, although

[22]Color revolutions in Georgia (2003), Ukraine (2004 and 2014), Kyrgyzstan (2005 and 2010), and Armenia (2018) serve as compelling examples of instances when the people of countries that adopted a gradual approach demanded a shift toward a faster pace of reforms (Havrylyshyn et al., 2016).

[23]Instead, the argument that institutional reforms should precede market reforms was frequently used by ex-communist leaders to delay economic liberalization, allowing them time to build coalitions that could later block market reforms (Havrylyshyn et al., 2016). The next chapter, Chapter 3, will demonstrate that this issue also affected Vietnam's privatization process for at least eight years (from 1992 to 1998), during which privatization could not progress faster for precisely the same reason.

privatization is an important component of market reforms for countries in transition, the optimal pace of privatization has not been as thoroughly discussed as the optimal pace of market reforms (see, e.g., Blanchard, 1993). Secondly, another often-overlooked aspect of reform outcome is the type of market structures that emerged during these transitions. Has economic growth been driven by higher or lower market concentration? In the literature, this question remains highly debated.

In several industries, rapid reforms led to higher market concentration, as privatization created large, consolidated firms, and eventually large economic groups (Aldunate et al., 2020; Kattuman & Domañski, 1997; Khanna & Yafeh, 2007). While some degree of market concentration can be beneficial for technological advancement (Nelson and Winter, 1982),[24] too much concentration can hamper competition, potentially leading to market distortions, higher prices, lower wages, and reduced incentives for innovation (Hubbard, 2016; Philippon, 2019).

On the other hand, several studies found that rapid reforms created a more dispersed market structure and a higher degree of competition (Amess & Roberts, 2007; Kikeri & Nellis, 2004). Such competition drives down prices and pushes firms to improve efficiency. Havrylyshyn et al. (2016) show evidence that gradual reforms were associated with the rise of the oligarch class in transition countries.[25] In other words, the slow pace of liberalization "seemed to have allowed for stronger oligarchy formation and entrenchment."

The third and final issue that needs to be addressed is the performance of firms in transition countries. It is possible that the rapid transition approach produces better economic outcomes in the long run because of better performance at the firm level. Among economic liberalization reforms, privatization is considered the most important tool for improving firm performance (Kikeri, 2022; Okten & Arin, 2006; D. L. Truong, 2006). What do empirical studies tell us about the post-privatization performance of firms in transition economies? The next section will explore this question in detail by reviewing the major

[24] According to the Schumpeterian Tradeoff hypothesis, a market structure dominated by large firms with significant market power is the cost society must bear for rapid technological advancement (Nelson & Winter, 1982).

[25] As the question of whether the speed of reform, particularly the pace of privatization, increases or decreases industrial concentration remains unresolved, Chapter 5 will seek to address it.

studies in this area.[26]

2.3 Empirical studies on transition economies

In this section, I review the literature on the effects of privatization in transitional economies. Section 2.3.1 examines the privatization experiences of Central and Eastern European (CEE henceforth) countries. Section 2.3.2 explores studies focused on Commonwealth of Independent States (CIS henceforth). Section 2.3.3 reviews post-privatization firm performance in China. Lastly, Section 2.3.4 will take a closer look at research evaluating the impact of privatization in Vietnam.

2.3.1 CEE countries

The fall of communism in CEE countries from 1989-91 motivated the governments in this region to establish a free market economy. In CEE countries, the most popular choice of privatization method was mass privatization programs,[27] followed by sales to insiders and sales to outsiders (Jelic et al., 2003). Cernat (2006, p. 63) argues that insider privatization was the only viable option of privatization here because it was a "convenient ideological compromise for a large political spectrum," and insiders may be as well "the buyers of last resort" when other options are not desirable.[28] Moreover, privatization in CEE countries occurred during its integration into the global economy, especially the European Union, thus a greater proportion of previously state-owned assets here were sold to foreign owners (i.e., foreign multinational companies) than elsewhere (Myant & Drahokoupil, 2010, p. 253). In this context, literature dealing with privatization in CEE countries produced mixed results.

Pohl et al. (1997) analyzed a sample of more than 6,300 industrial enterprises in seven countries (Bulgaria, the Czech and Slovak Republic, Hungary, Poland,

[26] Chapter 4 also revisit this issue by evaluating the performance of Vietnamese firms after privatization.

[27] At first, most countries in the CEE region adopted a "case-by-case" approach (e.g., Poland and Czech). However, this approach required multiple stakeholder approvals, which led to delays, asset stripping, and inefficiencies. To address these issues, there was a move toward more systemic approaches, i.e., mass privatization programs (Sachs, 1992).

[28] E.g., In certain cases, the governments discouraged privatization to foreign investors because they were afraid of stripping of strategic national assets and/or natural resources (Hingorani et al., 1997).

Romania, and Slovenia) over the early transition period 1992–1995. The number of firms in the sample for each country ranges from 700 to 1,000.[29] These firms are quite representative as they account for a large share of the employment in the industrial sector (45-90%), such as food, textiles, chemicals, metals, machinery, and transport equipment. To capture changes in firm performances, the study analyzes profitability, operating cash flows, labor productivity, total factor productivity, and export growth. Overall, these authors find a positive effect of privatization on productivity.[30] In particular, privatization accounted for 70-90% of the total factor productivity gains observed in countries with large privatization programs (e.g., Czech Republic, Hungary, and Slovakia). In general, privatized firms were better able to manage costs, shed surplus labor, and find new markets in a newly established competitive market economy.

One study that focused specifically on Central Europe is that of Frydman et al. (1999). The study is based on a survey of 506 manufacturing firms in Czech, Hungary and Poland during 1990-1994.[31] They find that privatization to outsiders brought much larger improvement than insider privatization.[32] Insider privatization even decreases productivity and increases costs, as political pressures and politicization prevented labor restructurings. Frydman et al. (1999) also attempted to control for mutual causation and selection bias in several ways. First, they use a fixed effects model to control for unobserved firm characteristics correlated with performance outcomes that are fixed over time. Second, they contrast the performance of firms privatized in one period with firms privatized in two different periods to compare how they would have performed without privatization. Finally, to control for the possibility that better firms are selected for privatization, they contrast the performance of firms owned by insiders with those controlled by other owners before the privatization event. After controlling for these factors, privatization was found to have a large positive effect in terms of revenue generation.

[29] This study is, therefore, one of the greatest works in terms of data (numbers of surveyed firms), as they use a sample of firms from Anderson et al. (1997).

[30] Pohl et al. (1997) also find that bank lending did more harm than good in the early transition period, as an increase in bank lending led to a decline in productivity in most cases. Later on in the transition period, most firms experienced an increase in productivity, which means that firms used bank loans to finance restructuring rather than cover current losses.

[31] As for indicators of firm performance, the authors use revenues, cost, productivity and employment.

[32] However, performance improvement is concentrated in revenue gains only.

In addition to the studies mentioned earlier that highlight the positive effects of privatization on firm performance, some research presents a more nuanced view of its impact. Carlin et al. (1995) provide an overview of firm performance in the early phase of transition through survey data of 450 firms in 4 CEE countries (Poland, Hungary, the Czech Republic, and Slovakia) over the period 1990–1994. The authors rely on case studies to provide qualitative insights on the process of privatization and restructuring. Overall, they find little evidence that the privatized firms were more likely to restructure than SOEs.[33] The incentive problems appear despite the ownership structure, especially when insiders have been in control of the privatization process. Many SOEs undertook some measures of restructuring towards increasing efficiency of production at the very beginning of the transition, even prior to privatization, due to the hardening of budget constraints and the liberalization of trade. Their results are not necessarily an argument against privatization, but what they suggested is that restructuring may actually signal an important incentive change that is conducive to the performance of firms, as firm managers, in anticipation of privatization, would strive to improve firm performance.[34]

In terms of post-privatization performance, empirical studies using quantitative methods produced conflicting results. Claessens and Djankov (2002), using a sample of firms in 7 CEE countries (Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, and Slovenia) privatized from 1992 to 1995, find that privatization was associated with increased sales revenues and labor productivity, and the effects seem to strengthen over time. Moreover, contrary to popular concerns about job losses, privatized firms even shed fewer jobs compared to non-privatized SOEs.

On the other hand, Aussenegg and Jelic (2007) examine the operating performance of newly privatized firms in 3 CEE economies (Hungary, Poland, and the Czech Republic) between 1990 and 1998 and find no significant improvement in profitability, efficiency, or output among privatized firms. Instead, there was

[33] Restructuring involves changes in internal organization, the closure of loss-making units and the spinning off, finding new markets in advanced economies and adapting new product ranges, labor shedding and incentive reforms for managers and employees.

[34] One possible explanation for this is that managers would improve their performance when they expect to be held accountable by new owners and want to prove their ability as managers before privatization. Similarly, large privatization programs appear to have a positive impact on productivity even in state-owned firms, probably because these firms wouldn't want to be privatized.

a decline in employment and an increase in leverage.

Jelic et al. (2003) proposed that such differences in privatization outcome may be due to the dominant choice of privatization methods in different countries. Like Aussenegg and Jelic (2007), this paper focuses on 3 CEE countries, Poland, Hungary, and the Czech Republic. It compares the effectiveness of 3 privatization methods, direct sales, IPOs, and mass voucher schemes. The results show that Polish and Hungarian firms that underwent gradual, firm-by-firm privatization outperformed their counterparts in the Czech Republic, where mass privatization was more common. Poland and Hungary also favored of IPO, which led to the development of local stock exchanges to improve stability and transparency of the privatization process.

Even within one country, the outcome of privatization might be different depending on the context of privatization. For instance, the Czech Republic undertook its mass privatization program (about 1,600 firms) in two waves of privatization consisting of voucher schemes in the first wave (1992-1993) and direct sales in the second wave (1994-1995) (Jelic et al., 2003). Harper (2002) used a sample of 453 Czech privatized firms and evaluated their performance 2 years before and 2 years after the event of privatization.[35] The author finds that, even though private ownership generally leads to performance improvements, the effect of concentrated ownership seems to be insignificant, and privatization leads to a decline in output and employment. Harper explains that this would be caused by the differences in privatization waves that may affect the overall performance of firms, with firms that were privatized during the second wave performing much better than firms that were privatized earlier. His findings thus emphasize the importance of the privatization context (economic and political environment) in the success of privatization.

Also highlighting the importance of privatization contexts, Claessens et al. (1997) examine the impact of mass privatization on the performance of 706 firms in the Czech Republic during the period 1992–1995. The authors conclude that privatized firms outperform SOEs. However, concentrated ownership into investment funds sponsored by banks and strategic investors is more likely to increase the performance of the privatized firms the most.[36]

[35]Performance is measured as labor productivity, profitability, output, and employment.
[36]The performance improvements were recorded in terms of higher profitability and market

In sum, even though privatization was a core component of the transition in CEE countries, its effectiveness often depended on the contexts in which it occurred (e.g., the development of supportive institutions, the financial system, the privatization method, and macroeconomic conditions). While the above-mentioned studies produced conflicting results, one consistent finding is that privatization to foreign owners tends to bring about the most beneficial outcomes. In the context of the European Union integration, this underscores the significant role of complementary reforms, such as external policies related to trade liberalization, currency convertibility, and foreign direct investment.[37]

2.3.2 CIS countries

Compared to the CEE countries, the initial conditions of the CIS countries were rather challenging. Transformation in CIS came after decades of political and economic struggle. Some countries even suffered from a civil war or military conflict over the border.[38] Compared to CEE nations, CIS countries were much more integrated and centralized in both the supply chains and trade networks (Myant & Drahokoupil, 2010, p. 221). Under Soviet rule, Central Moscow authorities fully controlled input, output, and activities between firms across the Soviet Union, as the Soviet economy was operated to the widest possible extent on a command system (Arrow & Phelps, 1993).[39] As a result of the Soviet Union's strong central planning, its collapse caused far greater disruption in CIS countries than anything experienced by CEE nations (Myant & Drahokoupil, 2010, p. 221).

Another factor that differentiates CEE and CIS countries is the extent of their foreign trade. In the former Soviet Union, all foreign trade connections were in the hands of Moscow. Due to the impact of the Cold War, CIS countries virtually had no established foreign contacts with Western firms. SOE managers were not interested in exporting their products and importing new

valuation.

[37] See also Zecchini (2020).

[38] For example, Tajikistan, Georgia, and Moldova all experienced a civil war or military conflicts within its border after their independence. In the mean time, Armenia and Azerbaijan fought a war over the the Nagorno-Karabakh region shortly after the collapse of the Soviet Union in the late 1980s.

[39] In Baldassarri et al. (1992) - Privatization Processes in Eastern Europe: Theoretical Foundations and Empirical Evidence.

technologies, meeting international standards, and making business contacts with foreign partners (Sanchez-Sibony, 2010). Compared to CEE countries, foreign trade in CIS countries was constrained by a lower technological level, greater geographical distances, and, perhaps most importantly, an uncertain legal and institutional framework (Myant & Drahokoupil, 2010, p. 222).

In the context of poor business prospects and a limited role of the state in the economy, privatization in CIS is characterized by the dominant role of SOE employees (Djankov & Murrell, 2002). According to Filatotchev et al. (1999), privatization in Russia has created a higher proportion of insider-controlled firms than in any other economy.[40] Other CIS economies where the privatization process has encouraged insider control are Ukraine and Belarus (Filatotchev et al., 1999). At the beginning of the transition (ca. 1990-1994), policymakers in these countries assumed that managers and employees of the privatized firms would sell their acquired shares to outsiders, thereby bringing in new expertise, technologies, and access to the markets for restructuring. However, this did not happen due to the poor development of capital markets, and the institutional environment, as well as the business climate, not supporting restructuring.[41] Moreover, managers and workers were hostile toward outsider control, and they effectively cooperated with each other to preserve insider entrenchment (Filatotchev et al., 1999). In the context of uncertainty, short-term profit was the dominant objective (Myant & Drahokoupil, 2010, p. 249). In the context of poor business prospects and a limited role of the state in the economy, privatization in CIS is characterized by the dominant role of SOE employees (Djankov & Murrell, 2002). According to Filatotchev et al. (1999), privatization in Russia has created a higher proportion of insider-controlled firms than in any other economy.[42] Other CIS economies where the privatization process has encouraged insider control are Ukraine and Belarus (Filatotchev et al., 1999). At the begin-

[40]For example, according to Gray (1996), mass privatization in Russia distributed much greater shares for insiders than the Czech privatization scheme, where about 70% of vouchers were transferred by individuals to investment funds.

[41]Due to limited access to underdeveloped financial systems, privatized firms had to rely on internal networks and non-cash transactions (bartering), with some even resorting to informal arrangements, like delayed wage payments, to endure the challenging transition (Myant & Drahokoupil, 2010, pp. 223–224).

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Djankov (1999a) examines the effect of two insider privatization methods, namely voucher privatization and cash sale to managers. Using a stratified random sample of 92 firms in Georgia and 149 firms in Moldova (manufacturing sector, insider-controlled firms), the author finds that performance would improve more rapidly in firms bought by their managers as compared to firms privatized through voucher auctions where the control remains with their managers. The study explains that this may be due to the manager's perception of the "windfall" income that they earn from voucher privatization.[44] The study looks at specific restructuring measures, i.e., sales growth per worker, asset sales, and factory renovations. Firms where managers bought ownership performed better across these indicators.

Using the same indicators, Djankov (1999b) examines how ownership structure affected firm performance in six CIS countries (Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, and Ukraine), focusing on 960 privatized manufacturing firms during the years 1995-1997. With a larger sample size compared to Djankov (1999a), the author finds that managerial ownership is beneficial when it is at very low (below 10%) or very high (above 30%) levels but has a negative

[43] Due to limited access to underdeveloped financial systems, privatized firms had to rely on internal networks and non-cash transactions (bartering), with some even resorting to informal arrangements, like delayed wage payments, to endure the challenging transition (Myant & Drahokoupil, 2010, pp. 223–224).

[44] The study argues that windfall income (e.g. gifts, lottery winnings, free money...) is consumed faster than earned income. In a privatization context, this suggests that managers who gain ownership for free or cheaply may have less incentives to improve firm performance, as their income is not solely based on the performance improvements. On the other hand, managers who bought their firms perform better as their fortunes are connected to the profits that the firm generates.

effect when managers hold between 10% and 30% of shares after privatization. Furthermore, privatization to domestic outsiders does not generate a positive impact, whereas privatization to foreign ownership is positively associated with firm performance.

The positive impact of privatization on labor productivity was also reported in Grygorenko and Lutz (2007). The authors examine a sample of 466 firms in Ukraine during the period 1997–1999. Ukraine is a typical case of slow and unsuccessful privatization due to complicated implementation procedures, inherited non-efficient industrial structure, weak incentives, corruption, and excessive bureaucracy.[45] These problems, the authors argue, would diminish the benefits of privatization over time. To test this hypothesis, the authors use a fixed effects model and find that private ownership outperforms state ownership, but mostly in the years immediately after privatization. Although firms with majority private ownership prosper significantly better than the others, a certain percentage of the state share improves firm performance afterward, compared to companies with 100% private ownership. The explanation of the authors is that these companies continue to benefit from the ties with the state, but this benefit may be lost if the government completely cuts those connections.

In contrast to other countries in the former Soviet Union, where privatization typically led to some positive effects on firm performance, Russia could be considered a special case. For instance, D. Brown et al. (2013) [46] find that Russian manufacturing firms experienced a 5% decrease in TFP on average after privatization to domestic owners.[47] In a longitudinal study covering Hungary, Romania, Russia, and Ukraine, D. Brown et al. (2006) found that Russia performed the worst among these countries, with productivity declining by 3%, and it took at least 5 years for any productivity gains to materialize.[48] Other countries in the study generally saw an immediate increase in total factor pro-

[45] See also: Myant and Drahokoupil (2010, p. 250)

[46] In Alexeev and Weber (2013)'s The Oxford handbook of the Russian economy. Oxford University Press.

[47] However, privatization to foreign owners generally had positive effects in Russia, though smaller than in other transition economies. Moreover, over time, there was a gradual post-privatization improvement in productivity in Russia.

[48] In the case of Russia, Perevalov et al. (1999) analyzed 198 industrial enterprises from 1992-1996, using panel regression to compare firm performance before and after privatization. They found that privatization improved operating profit margin but did not significantly enhance profitability, productivity, revenue growth, employment, or wages.

ductivity: Romania, part of the Eastern Bloc, experienced about a 15% gain, Hungary saw an 8% gain, while Ukraine, a former Soviet Union country, only achieved a 2% increase in productivity. This shows that firms in CIS countries generally performed worse than those in CEE countries after privatization (see also, e.g., Estrin, 2008; Djankov and Murrell, 2002). Among firms in CIS countries, Russian companies were among the worst performers after privatization (Jones, 1998), even though restructuring measures had occurred (Barberis et al., 1996).[49] As mentioned earlier, this can be partially attributed to the fact that the initial conditions in the CIS, particularly in Russia, were much worse than in other regions, compounded by the economic distortions that occurred during the central planning era.

In the context of transitioning from a very poor institutional level, should privatization be accompanied by other liberalization reforms? Earle and Estrin (2003), using data from 394 industrial firms privatized during the voucher phase in Russia, address the question of reform complementarity. They propose one important hypothesis that privatization, competition, and budget constraints may have somewhat interdependent (complementary and reinforcing) effects on corporate performance, as no single reform alone may be sufficient to discipline the SOE managers in the former communist countries. Therefore, privatization must be complemented by measures to promote competition and enforce fiscal discipline to achieve meaningful improvements in enterprise performance.

In general, according to empirical studies of CIS countries, privatization appeared to be less important for improving the performance of firms compared to those in CEE countries. These less-impressive performance improvements may be due to the fact that the transition in CIS countries occurred in a poor-quality institutional environment, including insufficient protection of property rights, lack of experience with private ownership of production factors, the absence of functioning formal and informal rules, and, most importantly, inadequate supervision of the financial market. This was compounded by a highly distorted, closed market structure and the widespread occurrence of insider privatization. In such a context, privatization alone is not enough; it must be coupled with the introduction of competition to effectively discipline firm managers.

[49] In Barberis et al. (1996), restructuring measures include renovations, changes in suppliers, extended operating hours, and layoffs.

2.3.3 China

From a position in the late 1970s when property rights were poorly defined, the Chinese economy has gradually moved to a point where property rights are sufficiently specified so that asset exchanges become prevalent. The privatization process in China is a story of introducing private property rights into society and regulating the exchange of these rights among managers, public officials, and private investors searching for opportunities through sales, mergers, and acquisitions. This process spanned two decades (1978-1998), and the results were impressive in terms of economic growth,[50] even before formal privatization occurred.

In what has been termed a "crossing the river by feeling stones" approach, China's privatization experience has been very slow and experimental (X. Li et al., 2015). Over the past four decades, Chinese government has experimented with innovative forms of ownership, especially at subnational levels, which combine elements of both public and private property (Brandt & Rawski, 2008). Even before the experiment started, the Chinese government attempted to use different policies to impose free market principles in its economy while slowly building all sorts of market institutions in tandem. There had been even an argument that marketization and decentralization measures would help SOEs to be able to operate as efficiently as private firms; hence, there would be no need for a formal ownership reform (e.g., X. Li et al., 2019).[51]

In China, liberalization and marketization efforts were started as early as 1978 by permitting private firms to participate in the economy and using incentive contract systems on SOEs. Liberalization helped the number of recorded firms in China to increase from about 400,000 in 1978 to over 7,000,000 in 1998, which represents a diverse mix of state, urban, collective, township, village, joint-venture, shareholding, cooperative, and privately owned enterprises (Jefferson, 1998). Intense competition resulting from new private entrances motivated a new system of corporate governance within SOEs, those that resemble capitalist systems. Specifically, the government introduced the Enterprise Con-

[50] China's economic growth averaged 9.9% during 1978-1998. Source: World Bank Open Data (https://data.worldbank.org/)

[51] The argument would further assert that ownership is irrelevant to efficiency; what truly matters is that SOEs operate as if they were private firms (X. Li et al., 2019).

tract Responsibility system in order to strengthen incentives among managers and employees of existing SOEs (Choe & Yin, 2000). In some cases, production quotas and pricing limits were lifted.

However, it is questionable whether these marketization measures actually worked. Even the argument for decentralization without privatization sounds plausible at first, in reality, these measures often fail to deliver the expected outcome. Naughton (2007) argued that responsibility contracts in China did not work because SOE managers were rewarded for success but not punished for failure, and eventually, they were able to exploit effective control over SOE's assets at the expense of the state.[52] Dong et al. (2002) believe that much of China's economic growth during the 1980s could be attributed not to the success of the state economic sector, but to the dominance of township and village enterprises in the rural and industrial sectors.[53]

Jefferson et al. (2000) examine productivity growth of SOEs and private firms in China between 1980 and 1996. Taking into account the impact of business cycles, they conclude that the productivity of SOEs lagged behind that of private firms. Xu and Wang (1999), using data from 100 companies listed on the Shanghai Stock Exchange from 1993-94, find that labor productivity tends to decrease as the proportion of state shares increases. Qi et al. (2000), using a large sample including almost all firms listed on the Shanghai Stock Exchange from 1991-96, report that profitability (ROE) is negatively correlated with the size of state shares. X. Chen and Jiang (2000) use stock market data for three industries (i.e., electronics, commerce, and public utilities) and find that state ownership has a negative impact on firm performance in electronics – the most competitive industry among the three, thus suggesting that, in order to improve performance, firms in more competitive industries would need to have less state ownership. It is evident from empirical studies that Chinese SOEs were highly inefficient during the 1980s and the first half of the 1990s even after SOE decentralization and liberalization policies were put in place.

The next phase of ownership reform was pilot privatization attempts from

[52] In the UK, for instance, the same problem existed. For more than 3 decades since the 1950s, the British government had been experimenting with SOE commercialization, decentralization, and marketization. However, the success was invariably limited (El-Naggar, 1989, p. 5).

[53] However, Dong et al. (2002) note that it is difficult to tell the exact size of this collective sector because of the practice of registering private enterprise as collective enterprises.

1992 to 1997 at local levels, mostly in big cities and provinces. With the quiet acquiescence of the central government, privatization began in two cities of Zhucheng and Shunde in 1992, both were by then buried in huge fiscal debt. At first, the municipal governments turned their firms over to employees; then, when tax reform was introduced in 1994, and budget law was put into effect in 1995, privatization began to expand, and local governments started to transfer SOE's stakes to management as well (Garnaut et al., 2005).[54] These reforms effectively harden fiscal budget constraints on local governments and force them to make cost-effective decisions, i.e., labor shredding to reduce costs,[55] and, eventually, privatization to raise revenue. According to Y. Cao et al. (1999), around 50-70% of small SOEs were already privatized at the local level by the end of 1996,[56] in the model that these authors describe as "federalism, Chinese style." Within this framework, locally experimented privatizations were far ahead of the formal policy of privatization that was put into effect in 1997. This experimental approach is rather different from that of CEE and CIS countries, whereby the state attempted to use privatization as a tool itself to formally harden the budget.

The fact that local privatizations in China had been designed to favor employees should have performance implications for firms after privatization. Comparing the pre-and post-privatization financial and operating performance of 208 firms privatized in China from 1990-1997, Wei et al. (2003) find that profitability did not change significantly following privatization. Surprisingly, there is even a general trend toward declining profitability across all types of firms in China. Poor performance of privatized firms during the 1990s was also recorded by G. Jiang et al. (2009), Q. Sun and Tong (2003), and X. Wang et al. (2004). For example, based on a sample of 634 SOEs that went through the SIP process between 1994 and 1998, Q. Sun and Tong (2003) find that firm profitability, as measured by return on sales (ROS), decreased from 16.5% in the pre-SIP period to 11.4% in the post-SIP period. Similarly, X. Wang et al. (2004) and G. Jiang et al. (2009) also find that profitability decreased after SIP. It was evident

[54]During this phase, the government introduced the concept of "gaizhi", which means "changing the system", and later was endorsed as implication of ownership diversification (Garnaut et al., 2005).

[55]Around 10% of state workers in urban areas were laid off during 1994-1995.

[56]Y. Cao et al. (1999) explained that the range is wide because many local firms were still recorded as SOEs after privatization to receive benefits.

that, by the mid-1990s, marketization, SOE restructuring, and even local privatizations were not sufficient for China to achieve optimal resource allocation outcomes within the SOE sector. This circumstance provided a strong motivation for the Chinese Communist Party (CCP) to move into a more strategic direction in its national policy.

In 1997, during its 15th Party Congress, the CCP formalized privatization in mainland China through the strategy of "grasp the large, release the small".[57] Basically, this means keeping the largest 500 or so SOEs under the central government's control while privatizing all small and medium-sized SOEs in liberalized markets (Gabriele, 2020).[58] Since China's traditional economy involved a lot of fixed asset investments in infrastructure and real estate, the CCP has regrouped and merged many medium-sized SOEs to form larger SOEs in strategic sectors to create a form of "critical economic mass" that can compete globally (Beirne et al., 2013). This means that privatization in China is almost confined to small and medium-sized SOEs, which is in sharp contrast with European transition countries, wherein privatizations have been carried out involving large and small SOEs alike.[59]

As a result of privatization, X. Li et al. (2015) observe that, since the early 2000s, Chinese SOEs began to perform much better than non-SOEs. In particular, they observe that the profitability of SOEs surpassed that of non-SOEs somewhere between 2000 and 2001, with the convergence process already occurring as early as 1998, as reported in Hsieh and Song (2015). By developing a general-equilibrium model of privatization combined with openness and labor abundance, X. Li et al. (2015) show that a vertical structure has emerged between upstream industries (key industries controlled by the state via SOE monopoly) and downstream industries (largely liberalized and operating under capitalism). Enhanced trade liberalization, particularly after China's accession to the WTO in December 2001, led to a rapid expansion of downstream sectors, which, in turn, increased the demand for intermediate inputs (goods and ser-

[57] In Chinese: "zhuada fangxiao"

[58] Large SOEs are located in strategic sectors designated as crucial to economic development, i.e., defense, electric power and grid, petroleum and petrochemical, coal, aerospace, telecom, civil aviation, and shipping. Small and medium-sized SOEs, on the other hand, are located in competitive industries, such as textiles, foods, electronics, and so on.

[59] In Chinese, this process is "corporatlization", which refers to restructuring SOEs into a corporation (L. Cao, 2000).

vices) that were already monopolized by SOEs in upstream industries. In other words, this vertical structure has created a mechanism that allows upstream industries to extract profits from the downstream industries, as the downstream sectors were enjoying the benefits of labor abundance domestically and deeper integration globally.

Labor abundance is an important ingredient in X. Li et al. (2015)'s model. Without an abundant labor force, wages would rise immediately after the expansion of the downstream industries. Then there would be less room for the monopoly pricing on the intermediate inputs charged by upstream SOEs, as international trade imposes a price ceiling on the downstream goods; as a result, upstream SOEs would not be able to maintain persistent and high profitability (X. Li et al., 2015). In CEE and CIS countries, for example, even if these governments want to adopt a similar policy to create a vertical structure model, their small populations will lead to higher wages, eating up profit immediately. X. Li et al. (2015) found that this vertical structure with free trade and labor abundance is crucial in the understanding of what has been characterized as "state capitalism" in China. Findings from X. Li et al. (2015) also shed light on the broader question of what drives China's economic growth.[60]

2.3.4 Vietnam

Like China, initial privatization in Vietnam was highly partial, as the state often remained a controlling stake in firms after privatization (H. H. Le, 2017). In Vietnam, such a process is called "equitization," which refers to the conversion of state enterprises into joint-stock companies.[61]

The most cited study in Vietnam is from D. L. Truong (2006). This study measures the impact of equitization on the performance of 121 equitized firms before 2002. The data from this study came mainly from the author's own questionnaire surveys and a number of secondary sources, such as financial

[60] A debate has been developed between "state capitalism vs. private sector" in China. On one hand, a number of academics (e.g., Garnaut et al., 2005) frequently cited China's economic miracle as evidence of the superiority of state capitalism and strong government. On the other hand, Lardy, 2019 stated that SOEs were highly inefficient and actually the private sector has been the main engine of China's economic growth.

[61] Decision 28/1996, "On The Transformation Of A Number Of State Enterprises Into Joint-Stock Companies". Chapter 3 4 will discuss the privatization and equitization process in Vietnam in more details.

data available on the company's website and stock exchanges. Profitability was measured with income before tax because equitized firms in Vietnam enjoyed some income tax reduction for a few years after equitization.

D. L. Truong (2006)'s study then proceeds in 2 steps. First, using the method developed by Megginson et al. (1994) (henceforth, MNR), they compare the pre-post equitization performance of all firms in their sample. In particular, the study calculates the performances of each and every firm over the equitization window (T-3 to T+3). Using this method on the full sample, they conclude that equitization has a positive effect on profitability (ROA, ROE, and ROS), labor productivity (sales per employee), and output (real sales). Also, the study documents a decline in leverage (total debt to total assets), but it is statistically insignificant. Additionally, they report a statistically significant increase in employment following equitization.

The second step involves cross-sectional regression analysis. With more data such as firm's size, firm's sector, firm's ownership structure, and capital market discipline, it is possible to know which kind of firms gained the most from equitization during the study period. Thus, the study divides the data into several subsamples:

(1) Larger firms vs. smaller firms: Based on average real sales, the study divides the sample into large and small firms. Firms with pre-equitization real sales averages above the sample median belong to the group of large firms; firms below the median belong to the second group of smaller firms. The results from regression analysis show that small firms have better performance improvements than larger firms in most indicators. In particular, smaller firms show greater gains in profitability (ROA, ROE, and ROS).

(2) Service firms vs. manufacturing firms: D. L. Truong (2006) proposed that firms in service sectors may outperform firms in manufacturing sectors because they require less need for fixed asset investment. Results show that, indeed, service firms experienced greater gains in profitability (ROA, ROE), output (real sales), and income efficiency. On the other hand, manufacturing firms perform better in ROS and sales efficiency, but the results are statistically insignificant.

(3) State ownership vs. private ownership: D. L. Truong (2006) proposed

that firms with more state ownership perform worse than firms with less state ownership. Results show that firms with more than 30% state ownership have inferior performance than firms with less than 30% state ownership in terms of profitability, income efficiency, employment, and employee income. Hence, state ownership is negatively associated with firm performance.

(4) Listed vs. non-listed firms: The authors put forward a hypothesis that listed firms outperform non-listed firms because of capital market discipline that may lead to better corporate governance. Surprisingly, listed firms actually have lower profitability gains than non-listed firms. This negative effect of listing on the stock market, according to D. L. Truong (2006), might be because equitized SOEs substantially expand their operation after being listed.

Methodologically, D. L. Truong (2006) used the methodology developed by MNR (1994) to compare the financial and operating performance of firms before and after privatization. To control for concurrent effects, D. L. Truong et al. (2007) employ Difference-in-difference (DID). By comparing the differences in given measures of a treatment group (equitized firms) over time to the difference in measures of the non-treatment group (SOEs) during the same period, DID method can isolate the impact of equitization from that of other factors.[62] Overall, results from the DID method are consistent with the results of the MNR method.

Like D. L. Truong et al. (2007), G. Tran (2008) also employed DID to isolate the impact of equitization from concurrent effects. Using data from 450 firms covering the period 2000-2004, this study finds that equitization significantly improves firm performance in terms of profitability, efficiency, output, and leverage. Moreover, G. Tran (2008) proposed a number of hypotheses. First, small firms performed relatively better than larger firms. To test this hypothesis, G. Tran (2008) split the sample into large and small firms. Results show that small firms experienced greater improvement in all measures of profitability.[63] Further, productivity in small firms doubled after equitization, whereas in large firms, efficiency only increased by 28%.

[62]Procedurally, DID involves 3 stages. In the first stage, the researcher computes performance measures before and after privatization for each firm in treatment and control groups. Next, the researcher needs to calculate the mean (median) of the difference separately for the treatment and control groups. Finally, the difference between the differences in the performance measures will represent the impact of privatization on firm performance.

[63]For small firms, profitability increased 3%, while it was only 2% for large firms.

The second hypothesis proposed by G. Tran (2008) is that equitization only works when the government sells a controlling stake in a company. The author tested this hypothesis by dividing the sample into "control" equitization (states sell more than 70%) and "revenue" equitization (states sell less than 30%). The result shows that, when companies still have more than 70% state ownership after equitization, they would have lower profitability. In particular, their profitability increased by 1.85% on average, while for companies that the state sells a controlling share, profitability increased by 3.2%.

Third, G. Tran (2008) sought to determine if export firms perform better than non-export firms. The author partitioned the sample into export and non-export groups and reported that the first group experienced a greater increase in median profitability. Exporting companies also perform much better in efficiency. Both leverage ratios in the two groups remained at a high level (60% of total assets), however, the mean rise is 14% for exporters and 9.5% for non-exporters. This suggests that exporters operated on higher leverage than non-export firms.

Finally, the study attempted to see if firms located in urban areas perform better than firms located in provinces and rural areas. It shows that, on average, firms located in cities outperform in every measure of performance, in the median as well as the mean value. After equitization, ROE in firms located in municipal areas increased by 7.44%, while in rural firms, the value is -2.11%, on average. Municipal firms are also found to perform better in terms of efficiency and output. The leverage ratio in metropolitan firms also increased more than that in rural firms.

In terms of methodology, N. M. Tran et al. (2015) also used the DID method. They also performed regression analysis on controlling variables (firm age, firm size, and industry) thus contributing to the findings from previous studies. Most importantly, the authors used propensity score matching to control for selection issues in the sample.

The data for the analysis cover the period 2004-2008. Since they use annual census data from the General Statistics Office, they could retrieve data for almost all firms above a certain threshold in Vietnam, which include SOEs, private firms, and foreign firms. What is rather interesting in this study is that

they extracted a subsample containing all firms privatized in the middle of the period, which is the year 2006, which is in sharp contrast with the sampling procedure in D. L. Truong (2006). N. M. Tran et al. (2015) argued that because D. L. Truong (2006) used data from the 1993-2002 period, their sample of equitized firms was not representative, as this period is too early in the equitization process of Vietnam.

To overcome this problem, N. M. Tran et al. (2015) selected 2006 as the pivotal year, thus covering a large sample of firms compared to earlier studies to improve the power of statistical tests. The second advantage of this sampling approach is, as mentioned above, to isolate possible cohort effects of other economic factors, as firms equitized in the same year face the same economic environment. PSM method, on the other hand, controls selection bias by assigning a match for each firm equitized in 2006. Firms equitzed in 2006 belong to the "treated group," while the rest of the firms from the full period (SOEs and private firms) belong to the "untreated groups." Based on the model, the match can be made using scoring rules, and eventually, the average treatment effect on firms equitized in 2006 would be identified.

The DID results show that equitized firms did better in terms of profitability compared to non-equitized SOEs and private firms. These results hold when the authors apply the PSM technique.[64] Thus, the study concluded that equitization continued to produce positive effects on firm performance in later periods, complementing results from studies that covered earlier periods.[65]

D. L. Truong and Tran (2016) also use the Enterprise Survey from the General Statistical Office of Vietnam, the most comprehensive source of firm surveys in Vietnam. The study evaluates the effects of equitization on the performance of SOEs. The sample is relatively larger than the previous study, with 301 equitized SOEs and 127 non-equitized SOEs from 2007 to 2010. Like N. M. Tran et al. (2015), D. L. Truong and Tran (2016) apply the propensity score matching and DID method to compare the performance of equitized firms with SOEs that did not go through equitization during the same period.

The results of D. L. Truong and Tran (2016) reveal that equitization had a positive impact on the profitability of firms (ROA and ROS). Moreover, after

[64]PSM was conducted with caliper and kernel matching.
[65]E.g., D. L. Truong, 2006 and G. Tran, 2008.

equitization, debt ratio and employment decreased, which indicates that organizational restructuring was implemented to increase efficiency. Yet, in terms of labor productivity (sales to employment), the authors find no evidence that sales per employee increased after equitization. Like previous studies, the study finds that smaller-sized firms perform better after equitization.

While all studies mentioned above cover the period before 2010, D. C. Pham and Nguyen (2019) analyzed the performance of firms in the period from 2005 to 2016. However, the sample size is quite small, with only 140 equitized SOEs on the stock exchanges. Because the study has no control group, it uses the Wilcoxon signed-rank test to assess the changes in profitability, output, and leverage before and after equitization. In general, the study reveals a significant increase in profitability measures (i.e., ROA and ROE) and output (i.e., total sales and total assets) after equitization, but there was no change in ROS. Moreover, there was no statistically significant change in leverage after equitization.

In sum, studies evaluating the post-equitization performance of Vietnamese SOEs produce quite conflicting results (see Table 2.3). Studies tend to agree that firms become more profitable after equitization; however, some studies do not find any statistically significant improvement in ROS (D. C. Pham & Nguyen, 2019) and ROE (D. L. Truong & Tran, 2016). Several studies report improvements in labor productivity following equitization (G. Tran, 2008; D. L. Truong, 2006), while others find no improvement (N. M. Tran et al., 2015; D. L. Truong & Tran, 2016). In terms of leverage, even though D. L. Truong (2006) and D. L. Truong and Tran (2016) reported a decline in the debt ratio, D. C. Pham and Nguyen (2019) and N. M. Tran et al. (2015) found no change in leverage. Finally, in terms of employment, while D. L. Truong (2006) observed increases in the total number of employment after equitization, other studies reported a decrease (D. L. Truong & Tran, 2016). One area where studies tend to agree is that small firms are more likely to be affected by equitization (G. Tran, 2008; D. L. Truong, 2006; D. L. Truong & Tran, 2016).[66]

At this point, one important thing to point out is that most of the studies mentioned above deal with equitization rather than privatization (D. C. Pham & Nguyen, 2019; G. Tran, 2008; N. M. Tran et al., 2015; D. L. Truong, 2006; D. L.

[66]This is possibly due to the observation that restructuring is easier in smaller firms compared to larger ones (see, e.g., Cavaliere and Scabrosetti, 2008).

Truong & Tran, 2016). While equitization refers to the transformation of 100% SOEs into joint-stock companies where the state maintains a majority stake in the equitized firms (Decision 28/1996; Beeson and Pham, 2012), privatization involves the transfer of control from the state to the private sector (Jomo, 2008, p. 201). In these studies, the authors did not explicitly distinguish between these two terms and used them interchangeably even though they refer to equitization (e.g., D. C. Pham and Nguyen, 2019; G. Tran, 2008).[67]

N. M. Tran et al. (2015) is the only study that defines "privatization" as the transformation from 100% state ownership to any level below 50% ownership. However, this definition still deals with equitization, as it does not account for scenarios where the government retains more than 50% but less than 100% share prior to equitization. Addressing this gap presents an opportunity for further research, particularly in the context of Vietnam, where a more refined definition of privatization could be constructed.[68]

[67] Other studies, not reviewed here in this section, also did not distinguish between privatization and equitization (see, e.g., Van Tan, 2020; T. Q. Vo, 2012).

[68] To address this research gap in the Vietnamese literature evaluating the economic impact of privatization in Vietnam, Chapter 4 of this thesis aims to refine the privatization indicator by defining it as a transaction where the government fully relinquishes control over SOEs (from above 50% to less than 50%). Even though the literature on this topic is quite extensive and I might miss some studies that have already dealt with privatization this way, to the best of my knowledge, this thesis is the first attempt to narrow privatization to such extent. Further details on the construction of privatization indicator will be elaborated in Chapter 4.

Table 2.3: Major studies evaluating the impact of privatization/equitization on firm performance in Vietnam.

No.	Paper	Sample	Study Period	Methodology	Main findings
1	D. L. Truong (2006)	121 equitized Vietnamese SOEs	1993-2002	Pre-post comparison using Wilcoxon signed-rank test	- Equitization has a positive effect on profitability (ROA, ROE, and ROS), sales per employee, output (real sales), and employment. - No change in leverage (debt ratio).
2	G. Tran (2008)	450 Vietnamese SOEs equitized	2000-2004	Pre-post comparison using Wilcoxon signed-rank test and DID (2x2)	- Equitization significantly improves firm performance, in terms of profitability, efficiency, output, and leverage.
3	N. M. Tran et al. (2015)	309 privatized firms	2004-2008	PSM and DID (2x2)	- Equitized firms performed better in terms of profitability compared to non-privatized firms and private firms.
4	D. L. Truong and Tran (2016)	301 equitized SOEs	2007-2010	PSM and DID (2x2)	- Equitization had a positive impact on the profitability of firms (ROA and ROS) - After equitization, debt ratio and employment decreased. - No change in sales to employment ratio.
5	D. C. Pham and Nguyen (2019)	140 equitized SOEs on stock exchanges	2005-2016	Pre-post comparison using Wilcoxon signed-rank test	- Increase in profitability measures (i.e., ROA and ROE) and output (i.e., total sales and total assets) after equitization. - No change in leverage post-equitization.

**Note:* DID (Differences-in-differences); PSM (Propensity Score Matching); ROA (Return on Assets); ROE (Return on Equity); ROS (Return on Sales)

2.3.5 Meta-analysis literature

So far, I have reviewed empirical studies at regional (CEE, CIS) and country levels (China and Vietnam). Nonetheless, individual studies may have limited statistical power due to small sample sizes, or specific regional focuses. Djankov and Murrell (2002), Estrin et al. (2009), and Iwasaki and Mizobata (2017) are three systematic reviews that attempt to overcome the limitations of individual empirical studies by synthesizing the results from a large number of studies evaluating the effect of privatization in transition countries. With the findings from these reviews, more robust conclusions can be drawn regarding the impact of privatization on firm performance.

Djankov and Murrell (2002) applied a meta-analysis from a large number of previous studies of the transition economies. Meta-analysis allows researchers to combine coefficients and standard errors from different groups of studies to obtain a single coefficient estimate of the effect of ownership or privatization on a performance indicator. Djankov and Murrell (2002) combine various performance indicators into a single composite measure of restructuring based on the results of 37 studies. Using partial correlation coefficients, they conclude that privatization to outsiders led to 50% more restructuring than privatization to insiders. Inside privatization had a negative effect in CIS countries, but no effect in CEE countries. Voucher privatization often resulted in more disappointing performances of firms, perhaps because it was frequently associated with insider ownership.[69]

Djankov and Murrell (2002) also found institutional foreign concentrated ownership to produce over ten times as much restructuring as diffuse individual ownership. They also find evidence that hard budget constraints force companies to restructure. Overall, Djankov and Murrell (2002) conclude that the impact of privatization on firm performance was positive and statistically significant in CEE, but statistically insignificant in CIS.[70] This could be explained by the differences in initial conditions (quality of institutional environment) of

[69]Indeed, despite their massive privatization programs, because of their relatively low levels of development and the widespread use of "voucher privatization," transition economies only generated 5% of the total global privatization revenues between 1990 and 2000.

[70]This is a reasonable conclusion, as there had been a plenty of empirical evidence that privatization to foreign owners is more beneficial, and foreign privatization was the most important in CEE countries.

CEE and CIS countries, with a weaker institutional environment leading to less effective governance by outside domestic owners in CIS nations.

Djankov and Murrell (2002) note that almost 50% of the surveyed studies before 2002 did not account for selection bias, and they suggest that future research should tackle this issue. Djankov and Murrell (2002) also did not include literature from China and Vietnam, but the paper is generally confident that privatization tends to improve performance.

Estrin et al. (2009) highlight a number of significant shifts of emphasis in the transition literature post-2002. One observation is the rise of FDI in CIS countries since the early 2000s and CEE countries already from the mid-1990s as part of a broader trade liberalization process, which shifted the focus of the debate from inside versus outside ownership to domestic versus foreign ownership, privatized versus newly established firms. Another observation is the divergence in the speed of privatization in CEE and CIS countries. While CEE countries adopted a speedy approach to institutional development to meet the EU requirements for member states, CIS countries were generally slower in changing their legal and economic institutions. In both CEE and CIS states, some governments did not privatize firms rapidly in bulk, but rather, they selected firms to be privatized carefully and cautiously based on different economic and political objectives.

Like Djankov and Murrell (2002), Estrin et al. (2009) emphasize that systematic literature on transition countries that do not account for the effect of foreign ownership, macroeconomic factors, initial conditions, and nonrandom selection issues should produce distorted results of the impact of privatization on firm performance.

Thus, Estrin et al. (2009) include 14 privatization studies covered in Djankov and Murrell (2002) that handle the selection bias and add 20 more relevant studies published from 2002-2007 (including China) to the sample of literature. Unlike Djankov and Murrell (2002), they distinguish separately the effect of privatization on each indicator of performance: TFP, profitability, revenues, and their growth rate, as well as other indicators of performance such as employment and wages. Further, they argue that, since most measures of performance in different studies are not the same, it is methodologically unsound to perform a

meta-analysis. Estrin et al. (2009) instead combine results from 34 studies using a graphical presentation as a proxy for a meta-analysis. They divide the studies into 4 groups based on the effect size of privatization on firm performance: relatively large effects, medium effects, small effects, and no effect (statistically insignificant). They also divide the transition period into early transition (ca. 1990-1995), and late transition (ca. 1995 onwards), with the exact time frame varying across countries.[71]

The results from Estrin et al. (2009) show a strong positive effect of foreign private ownership in both CEE and CIS countries and a smaller positive effect of domestic private ownership in CEE. Most studies surveyed by Estrin et al. (2009) show no negative impact of employee ownership on TFP.[72] In terms of profitability, the study found mixed results.[73] Estrin et al. (2009) suggest that this discrepancy may be due to selection issues in the surveyed studies that Djankov and Murrell (2002) failed to take into account adequately, as well as their recalculations of some estimates for the sake of comparability across studies. Moreover, another reason for stronger and more uniform findings of the positive impact of private ownership may be that more studies in Estrin et al. (2009) cover the post-2002 period when most countries had successfully stabilized their economy, and the effect of privatization began to take effect as markets start to function properly. Institutional development is a slow process, and more recent data may pertain to a more developed legal and institutional setting in most transition countries. Overall, Estrin et al. (2009) emphasized the positive impacts of privatization on firm performance, especially those involved in foreign ownership transfer.

A more recent study using meta-analysis in the transition literature is Iwasaki and Mizobata (2017). Iwasaki and Mizobata (2017) conducted a meta-analysis using 2984 estimates drawn from 121 previous studies published from 1996-2015, covering 29 countries, almost the entire CEE and CIS sample. The study is thus comprehensive both in terms of data (the paper uses the largest database of transition literature) and methodological sophistication (refined meta-analysis),

[71] In Estrin et al. (2009), late transition period was characterized by the boom in FDI and other macroeconomic improvements.

[72] There was even a positive effect in the case of Estonia.

[73] In particular, foreign ownership consistently improves profitability, while domestic ownership results are more varied, often depending on the governance structures and the institutional framework of the region

which is to shed light on the overall conclusions that can be reached by studies evaluating the relationship between post-privatization ownership and firm performance in transition economies. Another objective of the paper is to investigate the possibility that differences in privatization methods and speed of implementation affected the empirical findings of the previous studies.

First, they identify a list of possible empirical literature in CEE and CIS countries, and they limited the list to those containing estimates that could be subjected to meta-analysis synthesis using the partial correlation coefficient and the t-value.[74] Since there are basically 15 ownership variables found in the extant literature, as for the next step, they aggregate these ownership variables into 4 aggregated categories: state ownership, domestic outsider ownership, insider ownership, and foreign ownership. Finally, they conduct a comparative meta-analysis of the effect size and statistical significance of these aggregated categories of ownership, with different attributes to assess the presence and degree of publication selection bias in the literature.

Overall, the baseline estimation of a meta-regression model indicated that: (1) private ownership outperforms public ownership, but the effect sizes vary across private ownership types and time periods covered by a study; (2) domestic outside investors are inferior to insiders; (3) foreign ownership on firm performance is far more statistically significant than other types of ownership.[75] These observations strengthen previous findings from Djankov and Murrell (2002) and Estrin et al. (2009).

What's more, to investigate the impact of the speed of implementation, they sort countries in terms of the private sector share to GDP. They find that policy implementation speed strongly influences the link between post-privatization ownership structure and firm performance, in a sense that rapid privatization can reduce gaps among different owners by intensifying competition. Iwasaki and Mizobata (2017) work is important because they have provided concrete proof that specific factors in transition economies not only cause the remarkable

[74]From the literature, they identify the following performance indicators: sales/output; efficiency (such as ROA); productivity (labor productivity and TFP); firm value (represented by stock price and Tobin's Q); and 5 other less popular indicators.

[75]The paper also controls for idiosyncrasies and finds that only studies of CIS countries might be able to prove the effect of ownership by domestic private owners and foreign investors as opposed to state ownership on firm performance. Meanwhile, the effect size is much higher for foreign owners, and voucher privatization produces the worst results.

gap between countries in terms of ex-post improvements in firm performance but also significantly affect the interrelationship between foreign investors, domestic outsider owners and firm managers, and the relative superiority among different domestic outsiders, emphasizing the high degree of complexity of privatization in transition countries. Thus, specific factors such as policy implementation speed are among the most important factors to consider when assessing the impact of different ownership types on firm performance in a transition country.

2.4 Conclusion

Privatization in transition economies has been a fundamental part of market reform. In these countries, an important question has been whether to pursue reforms through gradualist or rapid measures. The debate that emerged from this question often centers on the political, economic, and institutional ramifications of each approach (Havrylyshyn et al., 2016; Kantorowicz & Spruk, 2024; Rodrik, 1993). The review and analysis in this chapter demonstrate that countries adopting rapid liberalization tend to experience higher growth in the long run despite a severe collapse in output during the early phase of transition. In contrast, those implementing delayed or gradual reforms frequently have less impressive economic performance and encounter significant barriers to completing the transition afterward. For instance, in Tajikistan, gradual reforms and a weak state led to political instability and a civil war between 1992 and 1997 (Lynch, 2001).

Gradual reforms didn't work partly because of the political economy of transition in ex-communist countries (Havrylyshyn et al., 2016). In former communist countries, the public sector had once dominated every aspect of the economy. Over time, this led to the emergence of a ruling communist class whose power and income were closely dependent on the central planning and subsidy system. They had vested interests in preserving the old structures, and rapid liberalization, deregulation, and privatization posed a substantial threat to their established power and financial status (El-Naggar, 1989, p. 14). As economic failures became more apparent, many of these rulers conceded that transitioning to a market economy was necessary, but they wanted to maintain their power.

To achieve that goal, the ex-communist leaders needed time to adapt, reorganize, and rebuild their power within the new economic system. This delay was essential for them to create a more effective "defense" against reform and reposition themselves to preserve their influence even as the economic system transformed around them. In some transition countries, gradual and deferred reforms led to the rise of powerful oligarchs and further delays in institutional developments (Havrylyshyn et al., 2016). Gradual reforms in Ukraine, for example, led to the rise of oligarchs in several sectors, which further created political instability and hindered institutional reforms in this country (Puglisi, 2003; Wilson, 2016). The slow pace of reforms gives politically connected insiders enough time to organize themselves, coordinate with one another, and build up financial resources. These advantages enable them to lobby the government and block economic reforms that could introduce competition and potentially threaten their dominant market position. In Chapter 5, I will test this hypothesis.

In the absence of a strong rule of law, could privatization improve the performance of the privatized firms? Through a review of empirical studies evaluating the performance of firm's post-privatization in transition countries, the chapter finds that the outcome is, at best, context-dependent. Unlike studies that were conducted to evaluate the performance of firms in industrialized countries, where most studies find an improvement in firm performance (see, e.g., Boardman et al., 2016; Megginson and Netter, 2001), privatization in institutionally weak states sometimes produces undesirable outcomes (e.g., Aussenegg and Jelic, 2007; D. Brown et al., 2013; Carlin et al., 1995; Jelic et al., 2003; Wei et al., 2003).

Again, the mixed performance of firms after privatization in transition countries might have something to do with the political economy of privatization here. Given the sheer scale of privatization in these economies, privatization must fulfill several conflicting objectives: e.g., enhancing enterprise efficiency, maintaining employment stability, ensuring rapid implementation, achieving equitable outcomes, and generating government revenue. As a result, privatization presented some of the most challenging intellectual dilemmas of the entire transition program (Åslund et al., 1996). In several cases, speed was prioritized to make privatization irreversible, as seen in Russia and the Czech Republic.

Consequently, expedient methods, such as mass privatization and insider privatization, were chosen to accelerate the process and prevent vested interests from organizing and consolidating to sabotage privatization efforts. Both the theoretical discussion in Chapter 1 and the empirical findings in this chapter provide plenty of evidence showing that selling firms to their own managers and workers can accelerate privatization (Ellerman, 1993; Wright et al., 2002). However, insiders have strong incentives to resist external control and avoid cost-cutting measures, like labor restructuring, that would improve efficiency (Blanchard, 1996; Debande & Friebel, 2004). Similarly, distributing shares widely among the population at low cost can be a convenient method of privatization, but these shares often end up in the hands of those more interested in immediate profit than in enhancing firm performance (Djankov, 1999a, 1999b; Filatotchev et al., 1999). Ultimately, successful privatization depends on transferring control rights from insiders to outsiders, particularly foreign owners, who can bring new expertise, knowledge, and technology to the firm (see, e.g., Claessens and Djankov, 2002; Djankov and Murrell, 2002; Estrin et al., 2009; Frydman et al., 1999; Iwasaki and Mizobata, 2017; Pohl et al., 1997)

A special case of transition discussed in this chapter is China. The relative success of China's economy, compared to other transition economies, defies the perceived limitations of a gradual approach to transition. China, following its economic reform strategy encapsulated by the idiom "crossing the river by feeling the stones," did not experience a drop in output. Instead, it was among the fastest-growing countries in the world. Even more paradoxically, this remarkable growth occurred without democracy, separation of powers, institutional consistency, or transparency.

Similar to China, Vietnam experienced relatively high rates of growth compared to other transition countries. Both countries maintained one-party rule, preserving existing political and economic institutions alongside newly developed market-oriented systems. However, Vietnam presents several unique puzzles. For instance, Fukuyama (2014) characterizes Vietnam as a country with a "strong state." Yet, Fforde (2021) and Fforde (2017) argues that the state in Vietnam is relatively weak due to its commercialization and fragmentation in the lower structures (see also Pincus, 2015). In terms of speed of market reform,

Vietnam was considered by some authors as a "slow reformer" (see, e.g., Dinh, 2000; Gainsborough, 2004; Ngu, 2003), yet, others claim that Vietnam adopted shock-therapy policies (e.g., Popov, 2007; Sachs and Woo, 1994). These divergent views raise potentially important discussions about the characteristics of the Vietnamese economic reforms. Vietnam's case further invites questions about what constitutes "appropriate institutions" for growth within a specific context. Perhaps, the case of China and Vietnam has provided some evidence that it is not the institutional level that matters most, but rather the specific types of institutions relevant to each country's political, historical, and social contexts. In the next chapter, I will examine the economic history of Vietnamese SOEs since its inception and highlight key features of Vietnam's privatization process during institutional building. In doing so, I also aim to provide readers with insights into the institutional context in which privatization in Vietnam takes place.

Appendix Table

Table 2.1: Synthetic control unit weights for countries in the donor pool

Country	**Unit weight**
Armenia	0.017
Azerbaijan	0.064
Belarus	0.052
Georgia	0.074
Kazakhstan	0.165
Romania	0.090
Tajikistan	0.015
Turkmenistan	0.038
Ukraine	0.465
Uzbekistan	0.019

**Note:* The weights represent the contribution of each control unit (country) in constructing the synthetic counterfactual. These weights were derived from the synthetic control method applied using the synth command in Stata.

Chapter 3

Privatization, Equitization, and State Enterprise Reforms in Vietnam, 1945–2018

3.1 Introduction

In the first two chapters, I have reviewed the theoretical foundations of privatization and the empirical evidence from transition economies. Building on these theoretical and empirical insights, this chapter focuses on Vietnam's privatization journey, framed by its historical economic structures and the pivotal role of state-owned enterprises (SOEs). By tracing the legacy of central planning and outlining the key stages of economic transitions, I seek to explain how and why the pace of reforms evolved over time, highlighting the economic, institutional, and external factors that shaped its trajectory.

As noted in the conclusion of Chapter II, one puzzle in Vietnam's economic history concerns the pace and extent of economic reform (see, e.g., B. Pham, 2003; Riedel and Turley, 1999). While Dinh (2000), Gainsborough (2004), and Ngu (2003) argue that Vietnam's economic transition progressed slowly, others contend that post-Đổi Mới reforms somehow resembled Western-style shock

therapy (Popov, 2007; Sachs & Woo, 1994).[1] Motivated by this puzzle, in addition to providing background knowledge for the subsequent empirical chapters (Chapters IV and V), this chapter—drawing on both primary data and secondary literature—will engage with the academic discussion surrounding the pace of Vietnam's economic transition towards private ownership (B. Pham, 2003).[2] Given that Vietnam's transition likely combined elements of both gradualism and rapid reform based on the domestic contexts and international influences (Gainsborough, 2004; Riedel & Turley, 1999), I will assess the speed and scope of SOE reforms across different periods and explain these dynamics through three key factors: economic conditions, institutional structures, and external pressures.[3] Near the end of this chapter, I will address an important but often overlooked question in the extant literature: What's the defining characteristics of the privatization process in Vietnam?

Before delving into the main content, several important clarifications are necessary. *First*, this chapter focuses on the period from 1945 to 2018. The year 2018 reflects the starting point of this research project and does not carry any specific significance beyond that. However, the decision to begin in 1945 was a deliberate choice, as it marked the establishment of the first state-owned production facilities in northern Vietnam. By tracing the historical development of SOEs from their inception, this chapter aims to contextualize the evolution of reform policies and provide a comprehensive understanding of the forces shaping Vietnam's economic transition towards a market-oriented economy.

Second, this chapter focuses specifically on the history of SOEs in northern Vietnam from 1945 to 1975, a period when the country was divided into two regions with distinct political and economic systems. In the north, SOEs were established under the communist regime to support wartime needs within a centrally planned economic framework. Meanwhile, state enterprises in southern Vietnam primarily operated in export sectors under a market-oriented system (Musolf, 1963). Following national reunification in 1975, these southern firms

[1] Popov (2007) notes that Vietnam implemented shock-therapy reforms, while China took on a gradual path.

[2] My primary data source is the raw, original data collected directly from enterprises through the General Statistics Office of Vietnam's enterprise survey. My secondary data source consists of academic articles analyzing SOE reforms in Vietnam.

[3] See also Obinger et al. (2016) and Painter (2003), who adopted similar approaches to explain the speed and extent of reforms.

were nationalized and absorbed into a unified socialist economic framework. By focusing on northern SOEs, I aim to provide a cohesive historical narrative and a more focused analysis of the communist regime's approach to SOE development. However, I acknowledge that southern SOEs could have also played a significant role in Vietnam's broader economic transformation. A complete history of SOEs and privatization in Vietnam, therefore, would be incomplete without considering the trajectory of southern SOEs during the Vietnam War.

Third, in this chapter, I distinguish between the concepts of "privatization" and "equitization." Equitization refers to the process of transforming an SOE into a joint-stock company, where the state typically retains majority ownership in the equitized firm (Beeson & Pham, 2012). Meanwhile, privatization means the complete or majority transfer of ownership and control from the state to the private sector. In this chapter, I use these terms in accordance with the definitions provided above. Establishing these distinctions is crucial to ensure that my analysis and interpretation remain consistent and accessible to both domestic and international readers who may not be familiar with Vietnam's specific terminology.

The remainder of this chapter is structured as follows. In Section 3.2, I discuss the establishment of SOEs and the early reforms during the 1945–1986 period. In Section 3.3, I focus on the nature of SOE reforms and the pilot equitization phase following Đổi Mới, up to the official start of equitization (1986–1998). In Section 3.4, I provide a detailed analysis of SOE reforms, privatization, and equitization from 1998 to 2006. In Section 3.5, I address the slowdown in equitization and the restructuring of SOEs during the 2007–2018 period. Finally, in Section 3.6, I will try to find out the main characteristics of privatization in Vietnam. In Section 3.7, I conclude the chapter and identify potential gaps for research.

3.2 The formation of SOEs and early SOE reforms, 1945-1986

3.2.1 The formation of SOEs (1945-1975)

After World War II, Vietnam was among the nations most severely affected by wars. In this context, the first SOEs were established, primarily focusing on sectors directly serving military purposes, such as coal mining, weapons production, and the supply of essential goods, including paper, matches, light bulbs, and tobacco. Under wartime conditions, these SOEs operated based on principles of dispersion, secrecy, and mobility, while being entirely dependent on government subsidies to sustain their activities. With significant aid from the socialist bloc, SOEs were increasingly invested in and expanded under policies of rapid socialization, nationalization of private enterprises, and industrialization following the Stalinist model. As a result, by the end of the war in 1975, North Vietnam's economy was almost entirely dominated by industrial SOEs and characterized by a centralized, bureaucratic, and subsidized economic management model. The story of Vietnam's SOEs between 1945 and 1975 is, therefore, not just an economic narrative; it is a story of how war and ideology have reshaped the entire architecture of a nation's economic history. What follows is an exploration of the critical stages of that transformation.

First Indochina War (1945-1954)

Despite Ho Chi Minh's declaration of national independence in 1945, Vietnam was legally divided into two regions controlled by opposing forces. In the North, a battle ensued between French troops and the communist-led Viet Minh. Meanwhile, the South came under the de facto control of France, which maintained its influence through a nominally independent monarch government. Later on, Fontainebleau Agreement (1946) sought to grant Vietnam autonomy as part of the French Union. However, the Agreement failed and the First Indochina War broke out.

To fight against the French, Viet Minh built a number of state-owned production facilities in Northern Vietnam. Between 1946 and 1954, the very first state

factories in mining, mechanics, printing, and textiles were established (T. K. C. Nguyen, 2010).[4] State-owned military factories were also constructed in the free zone and resistance base to manufacture weapons, ammunition, explosives, and military equipment. Pharmaceutical factories were built and began to produce various types of oral and injectable medicine. Several state-owned factories were established to produce basic consumer goods such as matches, textiles, sugar, salt, cigarettes, soap, leather, and paper. Major state-owned factories established between 1946 and 1955 are listed in Appendix Table 3.1.

Due to wartime conditions, these factories were small in size, dispersed, flexible, and highly self-reliant as they used local resources for production (T. D. Nguyen et al., 2013, pp. 552–553).[5] Moreover, they were strongly invested by the State. With these investments, by 1953, the defense industry had expanded 35-fold compared to 1946 (T. D. Nguyen et al., 2013, p. 533). Compared to 1950, in 1954 the number of coal production facilities increased by 96%, phosphate production facilities increased by 79%, and tin production facilities increased by 35% (H. K. Tran, 1996, p. 35). State-owned military facilities successfully developed several new types of weapons, including 60mm, 81mm, 120mm, and 187mm mortars, bomb launchers, and SKZ recoilless rifles. State-owned pharmaceutical facilities produced various types of medicines, such as antibiotics, anti-malarial drugs, pain relievers, and medical treatments for infectious diseases to support the war effort against the French and meet the healthcare needs of the population.

In terms of management, these early state-run facilities were organized and operated under a subsidy regime, with production entirely based on State plans. They were funded by the State, and wages were fully paid by the State (T. D. Nguyen et al., 2013, p. 523). Thus, the conditions of war had effectively given rise to a centralized management style in Northern Vietnam, well before the offi-

[4]For instance, a number of coalmines were established in the freezones of Quán Triều (Thái Nguyên) and Tân Trào (Tuyên Quang) (T. D. Nguyen et al., 2013, p. 552). Mineral resources like tin were mined in Tĩnh Túc (Cao Bằng), producing 20 tons of tin from 1946 to 1950. The Trần Hưng Đạo mechanical factory produced lathes, planers, and small tractors.

[5]An example is the Central Pharmaceutical Institute (Viện Bào Chế Trung Ương), now known as Pharbaco. During the war from 1945 to 1954, the Institute had to relocate its facilities from Hanoi to the mountainous area of Việt Bắc to avoid enemy sabotage. In 1954, after peace was temporarily restored, the institute was moved back to Hanoi. See Pharbaco. (n.d.). Giới thiệu (Introduction). Retrieved November 25, 2024, from https://pharbaco.com.vn/gioi-thieu/

cial adoption of Soviet-style central planning in 1960 (Fforde, 1999). A centralized management system allowed greater coordination of dispersed state-owned factories, more effective relocation of critical infrastructure to avoid enemy attacks, and strategic distribution of essential goods to both the military and civilians.

Transition towards social ownership (1954-1964)

After the Geneva Accords were signed on July 21, 1954, the revolutionary government took control of the capital, Hà Nội, bringing the North officially under its administration. The new state, the Government of the Democratic Republic of Vietnam, capitalized on the newfound peace to reconstruct and transform the existing multi-sector economy into a socialist economy characterized by two dominant forms of ownership: state-owned and collective (V. T. Tran et al., 2000, p. 109). In the new socialist economy, SOEs became the backbone of large-scale, capital-intensive industrial production (Ngu, 2003), while collectivization in agriculture allowed a group of farmers or small producers to work within the so-called "cooperatives."

To accelerate this transformation, the government increased investment in existing state-owned factories and constructed new ones (T. D. Nguyen et al., 2013, p. 556). The State took control of several factories left by the French,[6] and invested heavily in industrial projects,[7] while new factories were established to produce consumer goods.[8] Private economic activities were banned, and private businesses were brought under state control. For small businesses, such as restaurants and shops, a policy of gradual buyback and repayment was introduced. Larger private enterprises were transformed into SOEs (H. K. Tran, 1996, p. 49).[9]

[6]This include, for instance, the Nam Định Textile Factory, the Hải Phòng Cement Factory, the Hòn Gai Coal Mine, the Hải Phòng Shipyard, the Gia Lâm Train Factory, and the power plants in Nam Định, Hải Phòng, and Cửa Ông (T. D. Nguyen et al., 2013, p. 556).

[7]For example, major state-owned industrial factories received heavy investment: Thái Nguyên Iron and Steel Complex, Việt Trì Chemical Plant, Hà Bắc Nitrogenous Fertilizer Plant, Lâm Thao Superphosphate Plant. Additionally, more industrial zones were established in key locations such as Hòn Gai, Việt Trì, Nam Định, and Hà Nội.

[8]Among the new factories were established are: the Phú Thọ Tea Factory, the Hải Phòng Canned Fish Factory, the Cầu Đuống Plywood Factory, the Thống Nhất Match Factory, the Thăng Long Tobacco Factory, and the Hà Nội Rice Milling Factory.

[9]By the end of 1960, all the existing 729 private businesses had been nationalized (H. K. Tran, 1996, p. 46).

The massive investments in the industrial sector by the State during this period, supported by a continuous influx of aid from other socialist countries, led to impressive economic results, particularly in terms of the high growth rate of industrial production (Ngu, 2003). Industrial SOE output increased rapidly during this period, averaging 13.4% per year, with heavy industry growing at an average rate of 18.7% and light industry growing at an average rate of 10.2% (T. D. Nguyen et al., 2013, p. 573). Industrial SOEs, particularly centrally managed ones, supplied a significant volume of essential input materials for production, such as electricity, coal, iron, cement, metal cutting machines, electric motors, and water pumps. The expansion of light industry also resulted in a notable increase in consumer goods production, including bicycles, textiles, paper, and glassware. A variety of new industrial products, such as machine tools with Grade II precision, small blast furnace iron, refractory bricks, sulfuric acid, pesticides, plywood, and enameled iron products, were introduced using imported technologies from the Soviet Union and China.

Since state-run factories received both fixed and working capital directly from the State, they were considered fully owned and managed by the State or its delegated agencies (T. K. C. Nguyen, 2010, p. 29). The State, through its planning bodies, such as the State Planning Commission and its local branches,[10] set all targets for these SOEs, including total output, labor productivity levels, wage funds, capital investment, and the number of workers.

Second Indochina War (1965-1975)

Post-war reconstruction, rapid industrialization, and socialist transformation was interrupted on August 5, 1964, when the U.S. Air Force bombed several military targets in the North following the Gulf of Tonkin incident. In response to the new situation, North Vietnam's economic development process had to shift direction to adapt to wartime conditions (V. T. Tran et al., 2000, p. 113). Winning the war against the U.S. thus became the goal of North Vietnam's economy (Bring, 2023).

[10]The State Planning Commission of North Vietnam, established in 1955, centralized economic planning to support the transition to a socialist economy. Its main responsibility was to design, implement, and monitor economic plans, such as five-year plans, to align with goals of industrialization, collectivization, and self-reliance. Local branches ensured these national plans were effectively carried out at provincial and district levels.

On the other side of the battle, destroying North Vietnam's economy was a central goal of President Johnson's war effort. From 1964 to 1972, the U.S. escalated air and naval attacks throughout North Vietnam, destroying numerous industrial zones and SOEs that had been established earlier (T. D. Nguyen et al., 2013, p. 581). The U.S. Air Force also targeted roads and transportation networks to disrupt supply lines and communication between regions across Vietnam.[11] These attacks caused significant damage to North Vietnam's economy, with larger SOEs being particularly affected.[12] Due to the intensifying conflict, the State had to temporarily suspend the construction of several large SOEs and evacuate existing establishments from enemy-targeted areas in major cities to protect equipment and maintain production.[13]

Despite heavy bombing by the U.S. Air Force, with a massive increase in commodity aid from the socialist bloc during this period,[14] industrial SOEs in the North had developed significant capacities, especially those in heavy industries directly supporting the war effort, such as electricity, coal, metallurgy, mechanics, chemicals, and construction materials (Fforde and Paine, 2021; H. K. Tran, 1996, p. 51). The fixed assets of industrial SOEs in 1975 had doubled compared to their value in 1965. By 1975, Gross Industrial Product had reached 173.3% of its 1965 level,[15] with electricity capacity increasing 2.4 times, mechanics 2.5 times, and coal production by 28%.

The structure of the North Vietnam's economy also underwent notable changes, with a significant decline in the agricultural sector and an increase in the industrial and construction sectors. In 1957, North Vietnam's agricultural sector comprised 50.5% of the Gross Social Product.[16] Meanwhile, industry and construction represented only 31.6%. By 1975, the agricultural sector had shrunk to 29%. In the meantime, the industrial and construction sectors had risen to

[11] In the late 1960s and early 1970s, ion-based cloud seeding was used by the Americans to induce heavy rainfall, further exacerbating logistical disruption and hindering economic activities across Northern Vietnam.

[12] In the meantime, most small SOEs under the control of provincial governments were relatively safe and utilized local resources to meet the demands of the local population.

[13] For example, the Hà Nội Mechanical Factory had to be dispersed across 18 different locations, with workers having to transport and relocate thousands of tons of machinery and equipment (T. D. Nguyen et al., 2013, p. 582).

[14] During this period, it is estimated that aid from China and the Soviet Union accounted for between 20% and 50% of GDP (V. T. Tran et al., 2000, p. 118).

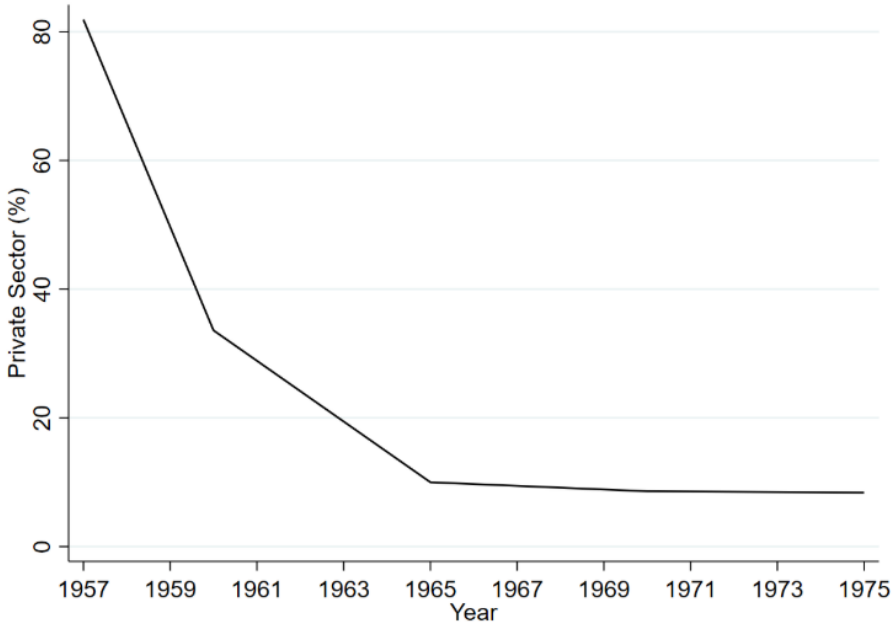
[15] See also Appendix Table for the annual growth rates of key economic indicators 3.2.

[16] Gross Social Product was a key measure in the Marxist-Leninist economic framework during the centrally planned economy era.

55.3%.[17] This shift reflects the North Vietnam's strategic emphasis on industrialization as part of its broader effort to build a socialist economy with a focus on heavy industries in the context of prolonged conflict.

By 1975, as the war was coming to an end, the process of nationalization was nearly complete. However, it is important to note that this process was completed in a rather short period of time. As shown in Figure 3.1, the private sector's share of had dropped from 81.9% in 1957 to 10% in 1965. In other words, it took only 8 years for North Vietnam to transform its economy from a predominantly mixed structure to a nearly fully socialist system. Between 1965 and 1975, the private sector further decreased by just 1.6%. This reflects the "shock-therapy" characteristics of the transition to social ownership, a pattern commonly observed in other former socialist countries, such as the Soviet Union and China.

Figure 3.1: The evolution of the non-state sector (1957-1975)



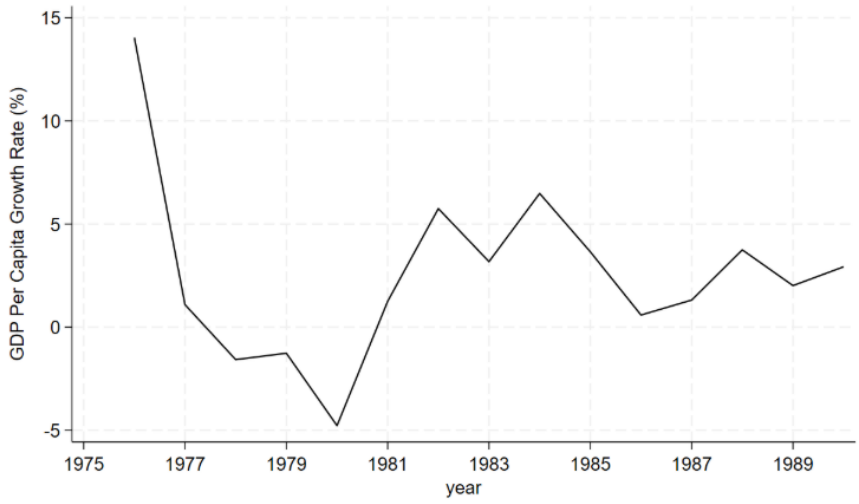
*Note: Values represent the percentage share of Gross Industrial Product. Source: Author's compilations based on V. T. Tran et al. (2000).

[17]See Appendix Table 3.3.

3.2.2 Early SOE reforms in the context of the socio-economic crisis (1975-1985)

Under a central planning system, the State controlled every aspect of SOE operations, regulating everything from production quotas to pricing, and even the allocation of resources. The State also provided SOEs with financial support and covered their losses, which eliminated the incentive for improving efficiency. Coupled with external shocks, such as the border wars with Cambodia in 1978 and China 1979, in the late 1970s, Vietnam faced a serious crisis characterized by food shortages, mounting budget deficits, declining productivity, and extremely low growth (see Figure 3.2).

Figure 3.2: Evolution of Vietnam's GDP Per Capita Growth Rate, 1975-1990



*Note: Growth rates of GDP per capita were calculated based on real GDP per capita in 2011 US$. Source: Author's calculation based on the Maddison Historical Statistics Project (Inklaar et al., 2018).

In the middle of a severe socio-economic crisis, in 1979, the Communist Party of Vietnam began to reassess its economic strategy. At the 5th Plenum of the 4th National Party Congress in July 1979, some economic liberalization policies were proposed to relax the rigidity of central planning (Dao, 1999; Ngu, 2003). As a result, the pace of socialization in the South slowed down, some performance incentives were offered to SOE managers, and, perhaps most importantly, the

private sector was recognized as a "complement" to the State sector (Kimura, 1986; T. K. C. Nguyen, 2010, p. 39).[18]

Then, in the early 1980s, the government launched an ambitious wave of SOE reforms, aimed at granting greater autonomy to SOEs (Bring, 2023).[19] To make production "explode" (*bung ra*), the State issued Decree 25/CP in January 1981, introducing the so-called "three-plan system" (Schellhorn, 1992). Plan A (the State's plan) represented the remnants of central planning, while Plans B (the Enterprise's plan) and Plan C (the auxiliary plan) were novel. Plan B focused on "list goods," products that SOEs were originally established to produce for the central planning system. However, these goods could now be produced using inputs that SOEs obtained from markets. Plan C, on the other hand, involved goods not on the "list" and often emerged in black markets (Fforde, 2021). Under this system, while SOEs still had to fulfill their obligations to the State, they were allowed to create "self-balancing" plans (Plans B and C) for transactions in the free market at negotiated prices (Dao, 1999), sell the resulting goods in the market, and most importantly, retain a portion of the profits (Ngu, 2003).

Introduced in 1981, the three-plan system represented a relatively bold step for a socialist economy at the time. Indeed, Decree 25-CP established a precedent both broader in scope and earlier in implementation than similar reforms elsewhere (Fforde, 2021). For example, China's SOE reforms did not begin until the mid-1980s, with the introduction of the dual-track pricing system and gradual decentralization measures. Similarly, in the Soviet Union, similar reforms granting more autonomy to SOEs only emerged during the mid- to late-1980s under Mikhail Gorbachev's Perestroika policies. Why did Vietnam pursue SOE reforms so much earlier than other socialist countries? This question can be explained, as I will examine below, by Vietnam's unique economic challenges in the post-war period, including widespread inefficiency within the centrally planned system, the expansion of informal market-oriented practices among existing SOEs, and the persistence of a relatively dynamic private sector in the South.

[18] This was affirmed in September 1979 through the Resolution of the 6th Plenum.

[19] Simultaneously, to boost production in the agricultural sector, Directive No. 100-CT/TW was introduced in January 1981 to encourage more efficient production decisions, effectively granting greater autonomy and incentives to farmers within the collective farming system.

Widespread inefficiency within the centrally planned system

On April 30, 1975, the liberation of South Vietnam brought an end to two decades of national division. In December 1976, the 4th National Congress of the Communist Party of Vietnam adopted a resolution to unify the country and transition the entire nation directly to socialism (V. T. Tran et al., 2000, p. 137). A pivotal outcome of this Congress was the approval of the first postwar Five-Year Plan (1976-1980). This ambitious plan mandated the application of the North's socialist principles to the South, advancing the entire country towards socialism (D. B. Freeman, 1996).[20]

This rapid transformation, while successfully expanding state control over economic activity, disrupted market mechanisms, leading to widespread inefficiencies and shortages across important sectors of the economy. Moreover, in 1978, the government issued the national currency, the Vietnamese dong, and mandated that virtually all savings must be deposited in state-owned banks, and withdrawals were allowed only with authorities' permission (Duiker, 1995). Many people, especially from the South, fearing for their financial security, fled the country or converted their savings into assets like gold or foreign currency. Also, in 1978, Vietnam overthrew the Khmer Rouge regime led by Pol Pot in Cambodia, which led to a trade embargo imposed by the United States and its allies. This economic isolation, compounded by the war with China in 1979, exhausted the flows of financial resources coming to the State budget, which ultimately consumed as much as one-fifth of Vietnam's annual GDP (Bring, 2023).[21]

The combination of external shocks and ineffective economic policies had destabilizing effects on the economy at large. From 1975 to 1985, Vietnam's growth rate was only 0.4% per year, on average (V. T. Tran et al., 2000, p. 140). Gross Agricultural Product grew by only 2% annually, combined with adverse weather conditions, led to food shortages in 1978-1979. In the meantime, Gross

[20] Central to this plan was the emphasis on the primacy of the state sector and the prioritization of heavy industry development. With the North's economy having achieved nearly full social ownership, the urgent task of "big push" socialization of private property in the South's market economy became a priority (Bring, 2023).

[21] Having lost nearly all sources of income, Vietnam increasingly relied on the Soviet Union (Fforde, 2013). In June 1978, Vietnam became the 10th member of the Council for Mutual Economic Assistance (Comecon). Subsequently, trade with Eastern Europe came to dominate Vietnam's economic exchanges (Bring, 2023).

Industrial Product remained largely unchanged, and thus, there were serious shortages of goods produced in the industrial sectors (Kimura, 1986). The majority of SOEs were unprofitably, operated at only about 50% capacity, and the quality of their products was extremely poor (V. T. Tran et al., 2000, p. 140). As the budget deficit surged, inflation spiraled out of control, with the Consumer Price Index rising by double digits annually.[22] Capital accumulation became almost entirely dependent on foreign sources, with aid from the Soviet Union and other allies accounting for 12.7% of national income. This extremely poor economic performance, particularly within the SOE sector, likely compelled the State to acknowledge the urgent need for radical, early SOE reforms to stabilize the economy.

The expansion of informal market-oriented practices among SOEs

During the wars, the subordination of plans to military targets meant that over-investment in heavy industries often occurred at the expense of chronic input shortages for SOEs in other sectors (Beresford, 2008; Fforde, 1986).[23] Due to this shortage, the majority of SOEs could neither meet legally binding output targets nor ensure the quality of goods and services (Beresford, 1993; T. K. C. Nguyen, 2010, p. 30). Eventually, some SOEs had to resort to local "black markets" in order to survive.

The earliest SOE commercialization activities appeared during the inter-war period (1961-1965) (Fforde, 2021). In northern Vietnam, several state-owned factories, struggling to secure inputs, began conducting direct transactions with suppliers and customers (Fforde, 2021; Fforde & De Vylder, 1996). This included selling and/or bartering their products on free markets without any intermediary assigned by the State. Due to rising demand for goods and services, weak supply growth, and excessive monetary expansion, free market prices started to rise well above state prices around 1962-63 (Beresford & Fforde, 1997; Fforde, 2010). In the free market, prices were sometimes two to three

[22] See Table 3.1.

[23] Each State's plan had two components: a production plan and a distribution plan. Under the production plan, SOEs were required to supply a set quantity of products to the State. Because the State also managed product distribution, it determined the volume of inputs allocated to each SOE, effectively setting the terms of trade for all producers (Fforde, 2010). As history unfolds, the production plan turned out to be far more difficult to implement than distribution plan.

times higher, and at certain moments even four times higher, than state prices (Beresford & Fforde, 1997). A growing number of SOEs began "running to the market" to capitalize on these business opportunities (Fforde, 2007, 2013). A buoyant market economy started to materialize and exist alongside the socialist sectors (Fforde, 1986).

As time went by, SOEs in the North became increasingly involved in free market operations (Fforde, 1986, 2013). Most of them would have two departments: one handling rationed goods, and another selling products at free market prices. Eventually, the free market departments and their networks grew to surpass the size and importance of those distributing goods according to the plan (T. K. C. Nguyen, 2010, p. 35; Dao, 1999, p. 71). Profitable activities often reported as losses to avoid taxes (Fforde, 1986). These concealed profits were then used to purchase inputs from the free market or to distribute bonuses among workers (T. K. C. Nguyen, 2010, p. 38). Over time, as SOEs operated with increasing freedom to trade and source inputs, they accumulated significant resources outside official records (Fforde, 2010; Arkadie and Mallon, 2003, p. 42). Due to the impact of devastating wars, SOEs' involvement in the informal sector in Vietnam exceeded similar developments in China and former Soviet countries (P. Dang & Beresford, 1998).

According to Fforde (2021), the Vietnamese Communist Party was well aware of this development.[24] However, Vietnamese leaders, in the context of war and severe constraints, were essentially tolerating SOEs' efforts to "break the fence" (*phá rào*), permitting them to explore and experiment with commercial activities (Dao, 1999).[25] Therefore, Vietnam's SOE reforms in the early 1980s may have been driven more by the acceptance of existing practices among SOEs

[24]Thus, several measures were taken to address the issue. In 1968, Decision 140-CP was issued to experiment with a new kind of profit distribution system among SOEs. This decision, considered a precursor to the three-plan system introduced under Decree 25-CP in 1981, permitted SOEs to retain and distribute a portion of their profits. In 1970, Decision 236-CP expanded this regulation to apply to all industrial SOEs that had "relatively stable production and were profitable." Nonetheless, due to wartime conditions, the system was not widely adopted by the mid-1970s, and the experiment was ultimately abandoned (Fforde, 2021).

[25]The State's tolerant attitude towards SOE commercial activities was supposed to end in the early 1980s, once the war had concluded and Vietnam had reunified. For instance, while Decree 25-CP (1981), as mentioned earlier, did indeed grant SOEs greater operational autonomy, it also required them to properly account for input costs and output value in their three-part plans (Fforde, 1986, 2021). In the same vein, subsequent regulations, such as Decree 146-HDBT (1982) and Decree 156-HDBT (1984), further tightened oversight by mandating that higher-level authorities supervise all planned activities. However, these measures failed to curb SOE operations outside the central planning system.

than by deliberate policy formulation aimed at structural transformation.

The persistence of a relatively dynamic private sector in the South

Another important factor contributing to early SOE reform in Vietnam was the persistence and growth of the private sector in the South. After Vietnam's reunification, from 1976 to 1985, household businesses, commercial properties, and private enterprises in the South, which had previously operated within capitalist systems, were swiftly converted into SOEs. As a result, the number of SOEs increased rapidly. In 1976, the number of SOEs in Vietnam was 1,993. By 1985, it had already reached 3,482 (T. K. C. Nguyen, 2010, p. 35).[26] Much like the pace of socialization implemented in the North during the interwar period (1957-1964), socialization in South Vietnam unfolded in a swift, decisive manner (D. B. Freeman, 1996).

Yet, despite the State's efforts to nationalize and suppress the private sector in the South, market mechanisms survived, primarily through micro household businesses, and remained an important source of economic growth in the South (Vu-Thanh, 1994, p. 4).[27] Their resilience and efficiency in meeting local demand and generating income stood in stark contrast to the stagnation and inefficiencies plaguing many SOEs. Therefore, it is entirely plausible that the Communist leaders in the North, observing the superior performance of private firms in the South, especially in the middle of widespread shortages and inefficiencies in the SOE sector, were compelled to initiate SOE reforms early.

In sum, early SOE reforms in Vietnam, aimed at granting SOEs greater autonomy in decision-making within the framework of the central planning system, can be explained by Vietnam's unique economic challenges in the post-war period: widespread inefficiency, the overexpansion of commercialization activities among SOEs, and the growth of a dynamic private sector in the South.

[26]The number of central SOEs, which operated mainly in manufacturing sectors producing critical goods and services such as oil and gas, electricity, coal, machinery, and equipment, increased from 620 in 1976 to 740 in 1985. Meanwhile, the number of local SOEs, which were largely engaged in producing consumer goods, food, and farm equipment for local demand, jumped from 1,400 in 1976 to 2,000 in 1980 and 2,700 in 1985.

[27]D. B. Freeman (1996) reports that the informal sector contributed up to 85% of Vietnam's GDP between 1981 and 1986. The annual output of small-scale manufacturing and handicrafts was 16.6% higher in 1980 than in 1976. In the later period, between 1981 and 1985, small handicrafts and petty manufacturing sectors continued to expand and contributed 40-45% of Gross Industrial Product (see also N. T. Vo, 1990, p. 146).

Certainly, there could also be other factors that may explain Vietnam's SOE reforms in the early 1980s, such as external pressures from other socialist countries or policy diffusion from neighboring communist nations. However, without concrete empirical evidence, this seems unlikely, as Vietnam implemented SOE reforms earlier than any similar reforms across other socialist countries.[28]

3.3 SOE reforms after Đổi Mới (1986-1998)

The 6th National Congress of the Communist Party in December 1986 marked a turning point in the history of Vietnam (Dao, 1999, p. 70; Schellhorn, 1992). Under Đổi Mới, laissez-faire policies were introduced to foster the development of market-oriented institutions. Key reforms included openness to foreign investment, international trade liberalization, stabilization of the exchange rate, and the deregulation of prices to reflect market dynamics. Moreover, competition policies were enacted to encourage private sector growth.

Under the framework of Đổi Mới, SOE reforms were pursued through two primary approaches. The first approach involved hardening budget constraints on SOEs. As part of a broader disinflation strategy during the late 1980s and early 1990s, direct and indirect subsidies to SOEs were significantly reduced and, in some cases, abolished altogether (Srinivasan et al., 1996; Dollar et al., 1998; Dao, 1999, p. 72). Interest rates on loans to SOEs were raised above the inflation rate, eliminating previously abundant budgetary funding for all but a small group of profit-making SOEs (Srinivasan et al., 1996). Additionally, large-scale extrabudgetary subsidies in the form of cheap imported inputs were no longer available, which was followed by restrictions on bonus and welfare fund payments for loss-making SOEs (Dao, 1999, p. 73). In the early 1990s, several new tax laws were introduced to create a more structured and reliable system for taxing SOEs (Srinivasan et al., 1996).[29] Production quotas, fixed prices, and employment targets were replaced or greatly reduced (Fforde, 2021), giving

[28] Future research may, therefore, consider whether subtle international pressures, such as economic cooperation with the socialist bloc, played a role in accelerating reforms.

[29] Moreover, in the early 1990s, the government took additional steps to control the growth of credit and inflation. Several new tax laws were introduced that created a more structured and reliable system for taxing SOEs (Srinivasan et al., 1996). Loans to SOEs were further controlled more carefully and priced appropriately. These restrained monetary and fiscal policies helped to bring inflation down to about 10% per year during 1993-95.

SOEs more flexibility to make business decisions and allowing the market and competition to influence their activities (Odano & Nguyen, 2009). These bold measures to remove soft budget constraints were implemented rapidly between 1987 and 1991 (Dinh, 2000; O'Connor, 1996).

The second reform approach focused on the rationalization of the SOE sector through a series of administrative measures aimed at improving efficiency and reducing fragmentation within the SOE sector. Re-registration was introduced to increase transparency and accountability by requiring all SOEs to provide comprehensive information on their assets, including the mandatory disclosure of land ownership.[30] Downsizing aimed to improved productivity by reducing redundant staff.[31] Liquidation sought to eliminate unprofitable and inefficient SOEs, freeing up resources for more viable enterprises.[32] Consolidation aimed to protect underperforming SOEs by merging those with similar orientations into larger, stronger entities, including but not limited to the so-called General Corporations,[33] capable of competing in an increasingly dynamic and competitive market (Bring, 2023; Sjöholm, 2006).

Similar to the swift imposition of hard budget constraints, these administrative measures were rapidly implemented in the late 1980s and early 1990s. For many small, inefficient, and unprofitable SOEs, this resulted in immediate closure. The numbers speak for themselves: in 1990, Vietnam had around 12,000 SOEs in operation. By 1994, following these reforms, around 2,000 SOEs had been dissolved, while approximately 3,000 SOEs were merged, with about one-third consolidated into GCs (N. J. Freeman, 1996b). These measures effectively halved the number of SOEs to roughly 6,000 by late 1994 and significantly re-

[30]This is based on an earlier idea: in September 1989, Decree 101-HDBT announced a capital survey of SOEs. Clearly, this would be important for equitization because it provided a comprehensive assessment of the financial health, asset value, and liabilities of SOEs, which was essential for determining their market valuation, ensuring transparency during the transfer of state assets to private ownership.

[31]Decision 176/HDBT (1989), for instance, aimed to optimize labor structures, reduce excess workforce, and improve productivity within SOEs.

[32]Decree 388 (1991) stated that any SOE could be forced to be dissolved if they were considered to be "permanently" inefficient, lack of capital or technology, or lack of market demand for its product and/or service (O'Connor, 1996).

[33]Consolidation of SOEs was prioritized following the issuance of Decree 90 and Decree 91 in 1994, which facilitated the establishment of the so-called General Corporation (GC). In particular, Decree 90-TTg (1994) called for the establishment of General Corporation 90 (GC90) with at least 5 SOE members with "close relationships" and legal capital of over VND 500 billion. General Corporation 91 (GC 91) called for formation of larger corporations with at least 7 SOE members, with a minimum legal capital of VND 1,000 billion, twice the size of GC 90. Moreover, a GC 91 is allowed to operate in several industries.

duced SOE employment by approximately 800,000 workers (Dollar et al., 1998; O'Connor, 1996).

Hence, both approaches to SOE reforms in Vietnam during this period, tightening budget constraints and restructuring SOEs through administrative measures, were carried out with remarkable speed. In fact, the pace of these reforms in the late 1980s and early 1990s was so fast that Vietnam was sometimes described as a "big-bang" reformer, reflecting a transition akin to the *blitzkrieg* approach observed in some Eastern European countries (Popov, 2007; Sachs & Woo, 1994).

It is important to note that, between 1992 and 1998, the Vietnamese government also launched a pilot equitization program aimed at transforming fully SOEs into JSCs (1992–1998). Like other SOE reform approach, equitization was meant to increase efficiency SOE sector and introduce market mechanisms into the economy. However, despite the fast pace of SOEs reforms during this period, equitization advanced at a notably slower pace. Throughout the entire pilot phase, only 25 SOEs underwent equitization, a striking contrast to the rapid pace of other reform measures in the state sector. Why did Vietnam's SOE reform process advance so rapidly while the shift toward equitization remained cautious and limited? What underlying forces accelerated SOE restructuring but restrained the process of transforming these entities into joint-stock companies? In the following analysis, I will examine the economic, institutional, and external factors that contributed to this divergence.

3.3.1 The economic performance: stagnation, hyperinflation, and high deficits

In 1986, Vietnam was among the 20 poorest countries in the world (Dollar et al., 1998; Kimura, 1986). The government's earlier attempts to develop the economy on the basis of collectivized agriculture and subsidized SOEs yielded disappointing results (Dollar et al., 1998). Domestic savings were negative, investment levels were low, and Soviet aid amounted to about 10% of Vietnam's GDP.

In the meantime, the growth of the informal economy was accompanied by significant economic distortions. The coexistence of state-controlled and free-

market prices created discrepancies and incentivized speculative behaviors. As a result, some private traders hoarded goods to create artificial scarcities in an already scarce market for goods and services due to economic sanctions. This scarcity, accompanied by an overexpansion of money supply,[34] led to rapid price increases in commodities, pushing Vietnam into a period of high inflation from 1981 to 1986. During this period, the average inflation rate was 74.2%. In 1986, the year marking the beginning of Đổi Mới, inflation skyrocketed to 453.5%, with some prices increasing by nearly 800% (Ngu, 2003; D. L. Truong, 2006). From 1986 to 1990, Vietnam's average inflation rate remained exceptionally high at 263.8% (See Table 3.1).

[34]In an attempt to stabilize inflation, the Vietnamese government introduced the "price-wage-monetary reform" (*cải cách giá-lương-tiền*) in September 1985. This policy was designed to adjust the prices of key commodities and stabilize the economy by controlling wages, prices, and the money supply (T. K. C. Nguyen, 2010, p. 40). However, this reform ultimately backfired: the expected stabilizing effect did not materialize, as the policy was implemented in a context where structural issues in the economy remained unaddressed. The government, facing mounting pressure and no viable alternative, resorted to pumping more money into the economy (Dao, 1999). Consequently, inflationary pressures intensified, and prices continued to surge uncontrollably.

Table 3.1: Vietnam's Consumer Price Index, 1980–1994

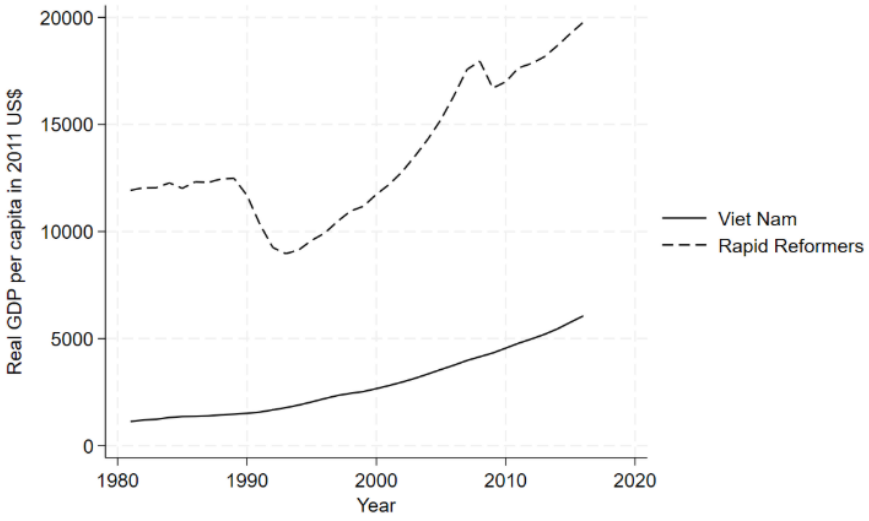
Year	Inflation Rate (%)
1980	25.2
1981	69.6
1982	95.4
1983	49.5
1984	64.9
1985	91.6
1986	453.5
1987	360.4
1988	377.4
1990	36.0
1991	81.8
1992	37.7
1993	8.4
1994	9.5

Source: International Monetary Fund, V. T. Tran et al. (2000).

In terms of economic growth, unlike other transition countries undergoing early and rapid liberalization, Vietnam's output collapse was relatively modest. As shown in Figure 3.3, while the rapid and early reformers experienced sharp economic contractions during the early 1990s, Vietnam's GDP remained quite stable during the same period. However, the sharp output collapse led to a rapid recovery in GDP among countries that adopted a rapid transition strategy, while Vietnam's economic growth, though more gradual and stable, was much more limited.[35]

[35]By 2018, the economic gap between Vietnam and those countries that implemented rapid reforms had grown even wider compared to 1980. As discussed in the previous chapter, Chapter 2, a gradual reform strategy tends to achieve far less success compared to a rapid and sustained reform approach.

Figure 3.3: Real GDP per Capita in Vietnam and selected transition countries



*Note: Real GDP per capita is measured in constant 2011 US dollars. Sources: Author's calculation based on Maddison Historical Statistics Project (Inklaar et al., 2018). Rapid reformers include: Estonia, Latvia, Lithuania, Czech Republic, Poland, Slovakia, Croatia, Hungary, Slovenia, Albania, Bulgaria, Macedonia, Kyrgyzstan, Russia.

Moreover, as Soviet aid tapered off in 1987, government revenues declined sharply, while budget deficits expanded uncontrollably. Consequently, subsidies to SOEs were significantly reduced, further exacerbating the problems faced by SOEs in Vietnam. Approximately 40% of SOEs were operating at a financial loss, with 90% of these being small- and medium-sized, locally managed enterprises (O'Connor, 1996). These mounting economic challenges—stagnation, hyperinflation, high deficits, and widespread financial losses among SOEs—played a crucial role in motivating the Vietnamese government to initiate sweeping SOE reforms as part of a broader strategy to stabilize the economy and restore growth.

3.3.2 The institutional factors: complementary reforms

Beyond poor economic performance, the development of institutions essential for both market-oriented system and effective SOE restructuring also played a significant role in accelerating SOE reforms. Market-oriented institutions were rapidly developed. To combat inflation, gold and silver transactions were legal-

ized (Schellhorn, 1992). Simultaneously, the banking and financial sectors were restructured to meet the demands of a market economy. State-owned banks were reorganized, and private banks were permitted to operate. In the agricultural sector, the government introduced the Land Use Rights Law (*Luật Đất đai*) in 1988, a landmark reform that began the privatization of 80% of the country's land by returning collective farms to peasant households (Ravallion & van de Walle, 2001). Additionally, rapid price deregulations allowed market forces to determine wages, prices, interest rates, and exchange rates.

With market institutions already established, the next phase focused on developing institutions specifically to support SOE reforms. Under the Đổi Mới framework, significant steps toward restructuring the SOE sector were introduced with Decision 217/HDBT, issued in November 1987 (Fforde, 2021; Q. N. Vu, 2002).[36] This decision marked a fundamental shift as the state-controlled mechanism, where inputs were supplied and outputs distributed by the government, was completely dismantled. SOE managers were granted greater authority to establish and implement production plans, hire and lay off excess workers, set wages and other remuneration practices, and determine investments using the enterprise's own resources, including the acquisition and leasing of assets (Odano & Nguyen, 2009; Srinivasan et al., 1996; Q. N. Vu, 2002). Now, most prices of SOE products were decided on the basis of supply and demand, except for certain price-controlled products (Schellhorn, 1992).[37] Last but not least, Decision 217 also provided the legal groundwork for future equitization.[38]

During this period, the most important institutional framework for SOE reform was the establishment of the Law on State Enterprises in 1995, designed to specifically address concerns over the efficiency and accountability of SOEs

[36]The first move was Party's Decree 306-BBT, "Draft resolution on State Enterprise' economic rights."(April 8, 1986). It was then followed by a conference and, subsequently, the promulgation of Decree 76-HDBT (1986), which, consistent with standard communist practice, aimed to "concretize" the Party's earlier directives (Fforde, 2021). Decree 76 clarified the specific domains in which SOEs would enjoy greater autonomy, including planning, contracting, management, production, distribution, and financial affairs (Stern, 1987).

[37]In Vietnam, price-controlled products are those whose prices are regulated by the government to ensure affordability, maintain public welfare, and stabilize the economy (e.g., petroleum products, electricity, water...). For these products, SOEs had to refer to price tables set by the central government before setting prices for their products, but the number of price-controlled products was rapidly reduced over the years.

[38]Article 22 of Decision 217 (1987) stated: "The Ministry of Finance shall research and organize pilot programs for buying and selling shares in some enterprises and report the results to the Council of Ministers by the end of 1988."

(O'Connor, 1996).[39] Besides providing SOEs with greater autonomy over their production processes, several provisions of the Law on State Enterprises were designed to strengthen SOE accountability and improve performance. For example, the law required SOEs to publicly disclose their financial reports, allowing for external assessment of their performance. Furthermore, it introduced performance-based bonuses for managers, linking compensation directly to enterprise profitability. These measures sought to ensure that SOE managers had both the decision-making freedom and the financial incentives necessary to operate efficiently and transparently (O'Connor, 1996). Another important aspect of this Law was the redefination of the role of controlling agencies. A "management council" within each SOE was created to collectively oversee the decision-making process within the SOE. Although SOE managers held executive authority, they were now accountable to the management council, the highest decision-making body within the SOE. With this change in organizational structure, the Law effectively placed SOE managers under tighter supervision and control, reducing the risk of interest group formation within the SOE that could obstruct or delay the SOE reform process.

In Vietnam, Central Steering Committees and their sub-committees are often established to accelerate and expedite the implementation of specific programs, policies, and tasks. Comprising representatives from various ministries, departments, and agencies, the establishment of a Steering Committee not only serves a supervisory role but also acts as a driving force to promote progress, encourage accountability, and ensure that important programs and policies are executed on schedule and with optimal results. Therefore, to speed up SOE reforms process, the government established the Central Steering Committee for Enterprise Restructuring in 1992. Line ministries and People's Committees at provincial and district levels were instructed to set up committees to develop SOE reform plans, which were to be submitted to the Central Steering Committee for approval (Painter, 2003). The establishment of local branches aimed to create institutions across all sectors and levels of governance capable of monitoring and evaluating the SOE reform process,[40] allowing timely interventions

[39]The Law was approved at the spring 1995 National Assembly meeting, after an extended period of debate (N. J. Freeman, 1996b), and officially came into effect in mid-1996.

[40]Line ministries were tasked with industry-specific management, while provincial and district People's Committees managed local reforms and other operations related to SOEs.

and addressing emerging issues during the implementation process.

Equitization, a key component of SOE reform, was supported by a similar initiative. The establishment of the Equitization Steering Committee in 1996 was designed to provide centralized coordination and oversight, ensuring a more structured approach to the equitization process. This multi-tiered structure, with sub-committees at both ministerial and local levels, facilitated effective management and supervision across various layers of government.

Moreover, it is important to note that, during this period, several policy documents were issued to accelerate equitization efforts.[41] Decree 28 (1996), for example, provided a comprehensive framework for transforming SOEs into JSCs. It clearly defined the objectives, conditions, scope, and methods of equitization, while detailing preferential policies for equitized firms, their employees, and managers. However, despite the establishment of the Steering Committee and these policy frameworks, the pace of equitization remained remarkably slow compared to broader SOE reforms during this period. This sluggish progress of equitization could be explained by the absence of sufficient institutional mechanisms to enforce reforms, such as the lack of a framework for asset valuation and the absence of strong capital markets. Moreover, it could be that, as Vietnam was finally opening up after Đổi Mới, domestic actors, aware of the risks associated with globalization, chose to reform their SOEs cautiously through retaining state ownership while rapidly restructuring them before eventually allowing equitization.

3.3.3 External pressures: Vietnam's opening up to global economy

Since the late 1980s, Vietnam, after decades of economic isolation, has returned to the international stage. After Vietnamese troops withdrew from Phnom Penh in 1989, Vietnam reconciled with China, which soon became the largest source of imports for Vietnamese goods. In 1994, the normalization of relations between Vietnam and the United States marked the end of a three-decade-long embargo, and Vietnam began to join several regional and multi-

[41] See, for example, Decision No. 84/TTg (March 4, 1993), the Politburo's Resolution No. 10-NQ/TW (March 17, 1995), the Politburo's Notice No. 63-TB/TW (April 4, 1997), and Directive No. 658/TTg (August 20, 1997).

lateral trading agreements.[42] In this context, foreign direct investment and a refocus on exports became important external factors that determining the pace and extent of equitization.

FDI

Because of the underdevelopment of capital markets domestically, foreign capital has been an important engine of economic growth for Vietnam after Đổi Mới. To attract foreign firms, the government enacted the Foreign Investment Law in 1987, which offered numerous incentives for foreign investors in SOE-foreign firm joint ventures, such as tax exemptions, land-use rights, and profit repatriation guarantees.[43] Then, in 1992, the Foreign Investment Law was amended to extend the same benefits to fully foreign-owned companies, even without local partners. In the early 1990s, Special Economic Zones and Industrial Parks, areas with preferential tax policies, streamlined administrative procedures, modern infrastructure, and access to key transportation hubs, were established to attract further foreign investment. These measures significantly boosted FDI inflows, with registered capital exceeding 10 billion USD in 1996, accounting for more than 40% of Vietnam's GDP at the time.[44]

However, as foreign firms rapidly entered Vietnam's industries and gained increasing market power, the Vietnamese government could have grown concerned about the competitiveness and sustainability of domestic firms, particularly the increasingly inefficient SOEs. In response, the above-mentioned administrative measures were implemented to enhance the efficiency of the SOE sector and ensure that SOEs remained relevant and resilient amid rising foreign competition. Furthermore, historical lessons from former socialist economies suggested that privatization could sometimes result in the transfer of domestic assets into foreign hands. Vietnam, emerging from prolonged wars and a long history of colonialism, was particularly sensitive to this risk. This historical context likely

[42] Vietnam signed, for example, the trade agreement with the European Union in 1992. Then, the country joined the Association of Southeast Asian Nations (ASEAN) and became a full-fledged member of ASEAN Free Trade Area (AFTA) in 1995. It joined the Asian Pacific Economic Cooperation (APEC) in 1998. In 1995, Vietnam expressed its willingness to obtain a membership of World Trade Organization (WTO).

[43] Effective in 1988, the FDI law offered preferential treatment to "joint ventures" between Vietnamese firms and foreign investors (Dollar et al., 1998). Between 1988 and 1994, these joint ventures accounted for roughly 70% of all foreign-invested enterprises.

[44] See also Appendix Table 3.7.

motivated Vietnamese policymakers to adopt a more cautious approach to economic reforms. As the country opened its markets and experienced a surge in foreign direct investment, the government implemented carefully calibrated strategies to balance SOE reforms with the protection of national economic sovereignty. SOEs, especially those in key domestic industries, were protected from being purchased and controlled by foreign corporations through the gradual equitization of SOEs.

Exports

The need to expand exports to global markets may have been a significant factor driving the accelerated pace of SOE reforms. With its new position on the international market, Vietnam's focus on exports intensified through a series of incentives to exports in the late 1980s and early 1990s.[45] These measures eventually paid off, as real export growth averaged more than 25% per year in the early 1990s (Dollar et al., 1998). The economic booms in East and Southeast Asia during this period helped absorb approximately 70% of Vietnam's exports. Like other countries seeking to climb the ladder of industrialization, Vietnam exports began with light industries. In 1996, textiles and garments, along with leather products and food and beverage, made up half of Vietnam's manufactured products.

The export-oriented strategy required productive enterprises capable of competing internationally, which further pressured the state to rationalize the SOE sector. For example, the Vietnam National Textile and Garment Corporation (Vinatex), established in 1995 as a General Corporation, became a leading entity in the textile and garment industry. Following a series of mergers, Vinatex oversaw numerous subsidiaries involved in producing and exporting textiles and garments to international markets, particularly the United States, European Union, and East Asia. By consolidating smaller, less efficient enterprises into a centralized corporation, Vinatex became better equipped to meet global demand and compete with international producers. In this sense, the export-

[45] A policy enacted in 1993 allowed exporters to suspend their payment of duties for ninety days, a period later extended to 275 days (Bring, 2023). This was followed by further incentives, such as investment loans, interest subsidies, and export credit guarantees. Also, the unification of Vietnam's multiple exchange rates and the subsequent depreciation of the Vietnamese Dong against the US Dollar in the late 1980s helped facilitate debt financing for exporters.

oriented strategy has contributed to accelerating SOE reforms in Vietnam. In the meantime, selling them to the private sector would be less appealing as it could lead to a loss of national control over strategic industries that require better coordination for exports, like the case of the South Korean chaebols, where large, state-backed conglomerates played a central role in export-driven industrialization.

In sum, following Đổi Mới, Vietnam implemented a rapid and comprehensive series of reforms aimed at revitalizing its SOE sector. These reforms included granting SOEs greater autonomy, reducing subsidies to harden budget constraints, and restructuring underperforming enterprises (Painter, 2003; Popov, 2007; Q. N. Vu, 2002). Meanwhile, equitization was introduced on a pilot basis. This contrasting pace between SOE reforms and equitization can be attributed to poor domestic economic performance and the lack of capital markets during the early stages of Đổi Mới, the development of market-oriented institutions that favored SOE reforms but not equitization, and Vietnam's initial entry into global markets.[46] In the next section, I will explain how these three factors, economic, institutional, and political, contributed to accelerating the pace of both SOE reforms and equitization from 1998 to 2006.

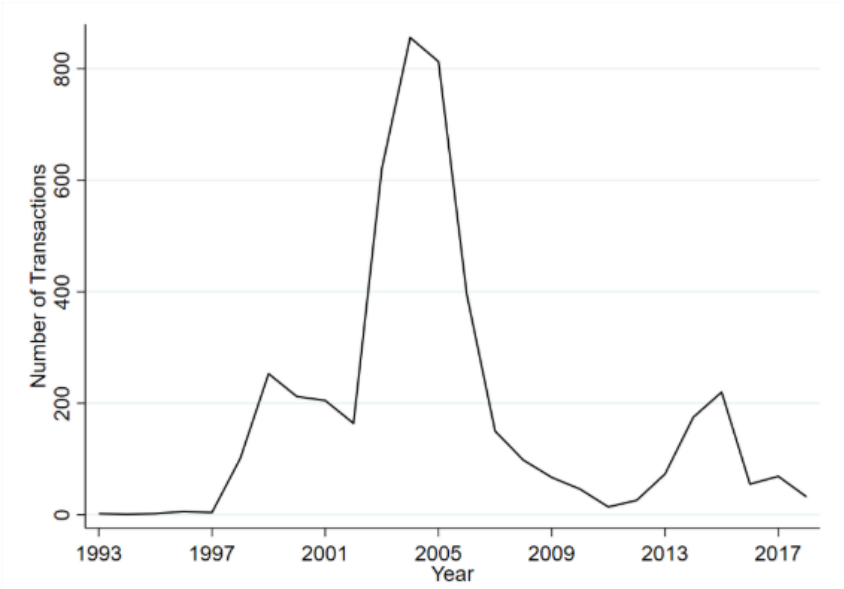
3.4 Rapid equitization, 1998-2006

From 1998 onwards, the process of equitization picked up pace, with the period between 1998 and 2006 witnessing a significant surge in the number of equitized firms. As shown in Figure 3.4, equitization started strong with 354 firms being equitized during 1998-1999 but slowed down a bit during 2000-2002 as new equitization regulations were expected (Ngu, 2003). And then, equitization accelerated in 2003, with 621 firms being equitized. Equitization reached an all-time high in 2004, with 856 equitized firms. In 2005 and 2006, 813 and 395 firms were equitized, respectively. Between 1998-2006, a total of 3,620 firms were equitized, accounting for 76.1% of all firms ever equitized from

[46] Thus, it could be said that globalization had a dual effect on Vietnam's SOE reform process: on the one hand, SOE restructuring was accelerated to improve operational efficiency; on the other hand, equitization and privatization were approached cautiously and experimentally to avoid potential negative consequences of globalization.

1992 to 2018.[47] Thus, if equitization in the pilot phase was extremely slow with only 25 firms being equitized from 1992 to mid-1998, it began to resemble Western-style "big-bang," large-scale privatization during 1998-2006.

Figure 3.4: Number of Equitization Transactions, 1993-2018



*Note: The number of equitizations is provided by the Steering Committee for Enterprise Reform and Development.

Why, after proceeding so slowly for the first six years of the program, did SOE divestiture in Vietnam suddenly accelerate? This momentum can be attributed to a combination of macroeconomic, institutional, and external factors. Favorable macroeconomic conditions, such as strong GDP growth rates domestically, likely created a more conducive environment for SOE reforms and equitization. Simultaneously, an improved legal framework and clearer regulatory guidance for equitization helped overcome bureaucratic hurdles that had previously stalled progress. Finally, external forces, including a surge in international trade, ODA, and FDI, further influenced SOE reforms by providing additional incentives for a more rapid process. Together, these forces motivated domestic actors, who, as noted in the previous section, were initially cautious

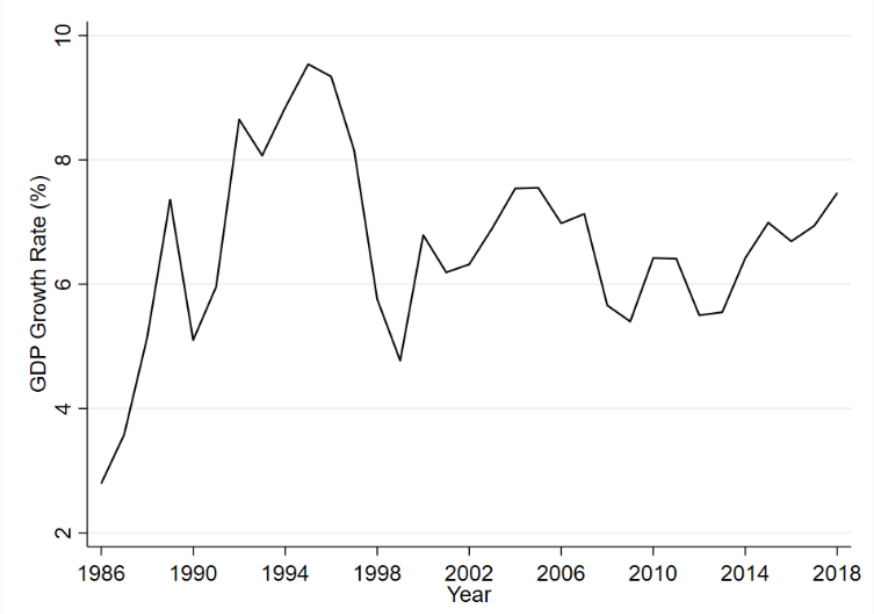
[47]See Appendix Table 3.5 for detailed numbers on equitization transactions from 1993 to 2018.

about equitization, to expedite the process during this period.

3.4.1 Economic factors: Favorable macroeconomic conditions

Following the Asian Financial Crisis of 1997–98, Vietnam, like other countries in the region, sought to revitalize its economic growth. Vietnam's GDP growth rate had dramatically fallen from 9.3% in 1996 to 4.8% in 1999, and efforts were underway to reverse this decline. With the implementation of deeper economic liberalization and integration,[48] the early years of the 21st century were a period of strong economic expansion for Vietnam, with an average growth rate of 6.9% over the five-year period from 2001 to 2005 (See Figure 3.5).

Figure 3.5: GDP Growth rate - Vietnam (annual %), 1976-2018



*Source: World Bank Database

As the confidence in the economy grew, the Vietnamese stock market experienced a historic bull run, with the VN-index surging from around 100 in early

[48]One of the most influential and emblematic reforms during the 2001–2005 period was Vietnam's 2001 Bilateral Trade Agreement with the United States. This trade agreement not only expanded market access for Vietnamese exports but also created a more attractive environment for foreign direct investment.

2000 to almost 1,150 in February 2007.[49] This rapid expansion was further supported by the introduction of the Law on Securities in June 2006, which established a more comprehensive legal framework for Vietnam's securities markets and significantly enhanced conditions for SOE equitization activities (T. H. L. Tran & Holloway, 2014). The use of IPOs to divest state ownership in SOEs played a crucial role not only in boosting market liquidity and attracting a broader base of investors (Chiesa & Nicodano, 2003; Pagano, 1993; Subrahmanyam & Titman, 1999) but also in creating a more transparent and accountable corporate governance practices (Gupta, 2005; D. L. Truong, 2006).

During the period when equitization peaked, the fundamentals of Vietnam's economic structure also shifted. Specifically, from 2001 to 2005, the share of agriculture, forestry, and fisheries decreased from 23.24% to 19.30%.[50] Industry and construction dropped to 38.13% in 2005. Services and trades, however, experienced a consistent rise, growing from 38.63% in 2001 to 42.57% in 2005, and became the largest contributor to GDP ever since.

The transition towards a more service-oriented economy has important implications for the equitization process in Vietnam. Traditionally, the State maintained strong control over agriculture and industrial sectors, especially during the war, because they were viewed as critical for national sovereignty, food security, and socialist development. With this history, SOEs in these sectors could have developed deep-rooted political and social ties, making their divestiture a more contentious and politically sensitive process. Thus, any attempts at equitization in these areas faced substantial bureaucratic obstacles and potential political resistance. As the relative economic significance of agriculture and heavy industry declines, the political and economic rationale for maintaining tight state control over these sectors may have weakened.[51] Over time, this creates normative and economic pressures favoring private ownership and management, including equitization and privatization.

Finally, during this period, the climate for the private sector in Vietnam

[49] To put this into perspective, the VN-index as of 20 June 2024 is 1,279. Historical price data for the VN-Index can be accessed at https://vn.investing.com/indices/vn-historical-data.

[50] See Appendix 3.6.

[51] The young growing service industries, on the other hand, tend to rely more on innovation and efficiency than on large-scale capital investments and state-controlled natural resources. In the service sector, private operators are often better suited to respond to rapidly changing market conditions.

had significantly improved compared to the earlier period. In 1999, the private sector's industrial growth surpassed that of the state sector for the first time since Vietnam's market reform began (Gainsborough, 2004). The Enterprise Law, which came into effect in 2000, further established a modern framework of corporate governance and created a vibrant business environment domestically. This rapid expansion demonstrated the viability and competitiveness of private enterprises, which likely increased domestic actors' confidence in the capacity of private ownership to drive economic growth and efficiency.

In general, a robust economic performance, combined with a structural shift toward a service-oriented economy, and an improved climate for the private sector, all contributed to the acceleration of equitization in Vietnam between 1998 and 2006. However, this rapid progress was not driven solely by favorable economic conditions. A series of institutional reforms, particularly the introduction of Decree 44 (1998), played a crucial role in accelerating the pace of equitization.

3.4.2 Institutional forces: The Evolving Legal Framework for Equitization

The turning point of the divestiture process in Vietnam began with the promulgation of the Government's Decree No. 44/1998/ND-CP,[52] which was meant to end the pilot stage and officially launch the equitization program in Vietnam (D. L. Truong & Tran, 2016). Decree 44, for the first time, provided clear regulations on specific types of firms to be equitized, incentives for SOEs and their employees; and who can buy shares during equitization. Later, new equitization regulations, Decree 64 (2002) and Decree 187 (2004) came into effect to replace Decree 44 (1998), providing more detailed procedures and guidelines for the equitization process. The establishment of a central supervisory agency for SOE reform, such as the National Enterprise Reform Committee (NERC) in 1998, further contributed to accelerating equitization.[53] Additionally, various policies were introduced to further address issues that had previously caused

[52]Decree 44 was issued on 29 June 1998 to replace Decree 28 (1996).

[53]To oversee and guide Vietnam's equitization process, the government established the National Enterprise Reform Committee (NERC) in 1998, an official body authorized to plan, coordinate, and lead the consensus-building process in implementing SOE reforms.

delays in the equitization process. These issues can be grouped into 5 main areas: (1) asset valuation, (2) debt restructuring prior to equitization, (3) state capital management, (4) legal framework for the equitization of larger SOEs, and (5) separation of the role of the state as both owner and regulator.[54]

Asset valuation

One of the significant obstacles during the equitization process is the difficulty in valuing SOE property correctly. Land and other SOE fixed assets, such as equipment and machinery, had been undervalued to lower their market value (L. N. Dang et al., 2021). Intangible assets, such as brand reputation or historical value, had also been undervalued during the equitization process.[55] A weak institutional framework for asset valuation could lead to asset stripping (Campos & Giovannoni, 2006) and eventually delay the SOE divestiture process. Therefore, during this period, there were a number of policy interventions aimed at improving the transparency and accuracy of asset valuation. In 2004, the Vietnamese government enacted Decree 187 to address critical issues related to asset valuation methods within SOEs, such as valuation rules for land, intangible assets, and long-term investments.[56] Moreover, the introduction of competitive share auctions for equitization also ensured that enterprise valuations would closely reflect market values.

Handling of bad debts prior to equitization

Another important concern during the equitization process has been how to handle bad debts of the SOEs to be equitized. Decree 187 (2004) also deals with this problem. It instructed that to-be-equitized SOEs must collaborate with relevant authorities to resolve financial matters before assessing the value of the enterprise for equitization. Assets leased, borrowed, or invested in joint ventures, as well as redundant and welfare-related assets, are excluded from the enterprise's valuation. Then, outstanding debts should be settled or converted

[54]For a comprehensive list of policy developments in chronological order, see Appendix Table 3.9

[55]For common issues related to asset valuation during equitization process, see Appendix Table 3.8.

[56]Decree No. 187/2004/ND-CP dated November 16, 2004, on the transformation of state-owned companies into joint-stock companies.

into equity. Uncollectable debts should be handed over to the the Debt and Asset Trading Corporation (DATC). Established in June 2003 under Decision 109,[57] DATC is a SOE with independent financial accounting, tasked with purchasing outstanding debts from SOEs through negotiation. The collected amounts were then divided between DATC and the state budget. To finance debt purchases, DATC was authorized to issue bonds and provide consulting, brokerage, and other legally approved financial services.[58] The establishment of institutions like DATC to manage bad debts before equitization helped remove one of the most significant bottlenecks that had previously hindered the process.

State capital management

Another concern in the equitization process is the mismanagement of state capital. To address this issue, the government introduced, for the first time, a series of crucial policies that aim to improve the management of capital and assets within SOEs to enable the timely assessment of their operational performance. For instance, the government issued Decision 271 (2003), introducing a performance evaluation framework for SOEs, which classified SOEs into categories and tied managers' bonuses to firm performance. This clearly provided SOE managers some incentives to manage state assets in SOEs more effectively. Then, Decree 199 (2004) expanded its scope to encompass the management of state capital in all types of SOEs, including even General Corporations. Decree 199 (2004) also outlined clear procedures and criteria for state capital investments (e.g., financial planning, accounting, auditing, and reporting) to promote the efficient utilization of state resources and effective risk management, an aspect that was still lacking in Decision 271 (2003). These policies were not only intended to ensure that state assets were managed appropriately but were also designed to help SOEs address their own challenges, meet their business objectives, and improve production efficiency. By improving accountability and resource utilization, the comprehensive changes in the legal framework regarding state capital management positively influenced the equitization processes

[57] Decision 109/QD-TTg of 5 June 2003, 'Establishment of the company for sale and purchase of enterprise outstanding debts and assets,' also referred to as the Debt and Asset Trading Corporation (DATC).

[58] The Ministry of Finance supervises DATC's organizational structure, financial mechanisms, and leadership appointments, ensuring alignment with national financial policies and accountability in debt management during equitization.

compared to the previous phase.

Equitization of large SOEs

Before 2004, the government had focused exclusively on the equitization of small and medium-sized SOEs. The Politburo's Directive 45, issued in October 2004, put an end to this. This Directive authorized the equitization of large SOEs in non-strategic sectors and emphasized the need to develop equitization plans for all types of SOEs, regardless of their size, except for those in security, defense, or those "not ready for equitization."[59] To concretize Directive 45, a number of policies was followed. According to these legal texts,[60] comprehensive plans for large SOE restructuring must be submitted, including the submission of comprehensive plans for the equitization of GCs (GC 90 and GC 91). Specifically, GCs that do not meet all of the following conditions would be eligible for equitization: (1) belonging to critical industries, (2) having state capital of at least 500 billion VND, (3) an average state budget contribution of at least 50 billion VND over the last three years, and (4) possessing advanced technology and management, high product quality, and efficient production with competitive capabilities in domestic and international markets.

Separating of the role of the state as both owner and regulator

The last policy initiative to accelerate equitization during this period was the creation of an institution that separates the two roles the government typically have in SOEs: state as an owner and state as a regulator. This redefinition has been a central feature of the SOE reform process, as much of the reform effort has focused on disentanglement of regulatory and ownership functions of state agencies (see, for example, UNCTAD, 2007). The key objective of these separation efforts is to make SOEs accountable for their own profits and losses through reorganization and corporatization, thus reducing the scope for polit-

[59]These are: explosives, toxic chemicals and cigarettes, power transmission, telecommunication networks, oil and gas, insurance, and the mining sector.

[60]See, for example, Resolution 34 of 3 February 2004, calling for expanding the equitization programme to include large SOEs and GCs; Directive 04 (2005) plans to equitize larger SOEs; Decree 84 of 13 May 2004, calling for the experimental equitization of three large GCs; and, Decree 187 of 16 November 2004 extended coverage to include large SOEs, GCs and state commercial banks. The criteria for the equitization of GCs were provided under Decision 155 (2004).

ical interference in business operations, avoiding possible conflicts of interest, improving efficiency within the SOE, and potentially speeding up the process of equitization (D. T. Nguyen et al., 2012).

This conceptual framework led to the establishment of the State Capital and Investment Corporation (SCIC) in mid-2005.[61] In principle, SCIC, a professional, largely for-profit organization, would eventually replace line Ministries and provincial authorities to represent the State in managing the State's interests in enterprises (W. Kim et al., 2010). Consequently, the ownership stakes in many SOEs have been transferred from various line authorities to SCIC. The relationship between SCIC and equitized SOEs under its management aimed towards the commercial-oriented and investment-based direction, replacing the mainly administrative-based as it used to be between the State supervisors and enterprises (T. K. C. Nguyen, 2010). By acting as the owner of equitized SOEs on behalf of the government, the SCIC is expected to consolidate state ownership in order to prevent the loss of state capital, increase the transparency and efficiency of investment and corporate governance (UNCTAD, 2007).

Overall, these institutional developments—a better framework for asset valuation, improved handling of bad debts, enhanced legislation on state capital management, provisions allowing the equitization of large SOEs, and the establishment of SCIC—provided a more holistic approach to equitization and significantly accelerated the SOE divestment process during 1998-2006. However, these institutional improvements might actually have been driven by a higher forces: international pressures.

3.4.3 External forces: Global Pressures and Their Impact on Vietnam's SOE Reform

Between 1998 and 2006, Vietnam's engagement with global economic institutions and financial markets created substantial external pressures for accelerated structural reforms domestically. Vietnam joined ASEAN and AFTA in 1995, signed a bilateral trade agreement with the United States in 2000, and was negotiating to join the World Trade Organization (WTO) in the early 2000s. These international institutions imposed both indirect and direct demands for

[61] SCIC was established under Prime Minister's Decisions 151 and 152 of 20 June 2005

structural adjustments, including trade and investment liberalization, tariff reductions, the elimination of quantitative restrictions, and large-scale SOE restructuring. International financial institutions such as the World Bank (WB), the Asian Development Bank (ADB), and the European Union (EU) also played a significant role in shaping Vietnam's SOE reform trajectory during this period (Painter, 2003). Simultaneously, foreign investors seeking to enter the Vietnamese market increasingly expected a more "level" playing field, where markets were not protected by SOEs.

Official Development Assistance (ODA)

As a major source of capital for economic development,[62] ODA in Vietnam surged from $200 million in 1993 to $2 billion in 2004 (Evans, 2004), making Vietnam one of the top global recipients. This financial support often came with reform conditions attached, such as structural milestones related to SOE reforms and equitization. International aid donors, such as the WB, ADB, and EU, sometimes leveraged ODA conditions to push the Vietnamese government toward faster equitization and SOE restructuring (see, for example, ADB, 2004). Alignment with donor expectations helped Vietnam secure continued and increasing aid inflows. Therefore, ODA not only played a crucial role in driving economic development in Vietnam but also helped accelerate the pace of economic reforms in several areas, including SOE restructuring.

Foreign Direct Investment (FDI)

It is also plausible that Vietnam equitized its SOEs quite rapidly and somewhat spontaneously during this period to attract foreign capital, particularly after signs of slowing FDI emerged in the second half of the 1990s. Since the launch of Đổi Mới in 1986, foreign investment has played a pivotal role in Vietnam's economic transition (UNCTAD, 2007). From 1987 to 1996, FDI surged dramatically: registered FDI was $735 million in 1990 and soared to $10 billion by 1996, nearly a fourteenfold increase in just six years.[63] However, after 1996,

[62]While FDI has generated growth in the Vietnamese industrial sector, official development assistance (ODA) has played a critical role in developing infrastructure—such as roads, bridges, and energy projects—as well as funding social services like education and healthcare.

[63]See Appendix Table 3.7.

FDI declined significantly, dropping to $5 billion during the 1997-1998 period and further decreasing to $2.5 billion in 1999. The slowdown in FDI growth beginning in 1996 can be partly attributed to the relatively slow pace of structural reforms following the groundbreaking liberalization of 1987. Moreover, the situation deteriorated further as output collapsed across the region due to the 1997 Asian Financial Crisis, causing foreign investors to suspend most investment projects.

To attract FDI after the Asian financial crisis, Vietnam demonstrated its willingness to reduce its SOE sector and level the playing field for foreign firms. Although foreign firms cannot directly demand that a government stop subsidizing its SOE sector and protecting domestic markets, policymakers clearly understood that continuing such protectionism would drive foreign companies and investment away. The government thus publicly announced its intention to implement a five-year SOEs Reform Plan, with specific annual targets for the first two years (2001-2003) after the 9th Party Congress. The plan set a five-year timeframe for completing SOE reforms, with a goal to reform approximately 30% of the remaining SOEs by the end of 2006. This involved equitizing, divesting, or liquidating 1,800 out of 5,571 SOEs. Of these to-be-reformed SOEs, 60-65% were to be equitized, with an annual target of 350 SOEs from 2001 to 2003. In reality, between 2001 and 2003, an average of 330 firms were equitized.[64] Not surprisingly, FDI inflows began rising again at a strong pace in 2003, reaching over $12 billion by 2006. Clearly, foreign investors took notice of the acceleration in Vietnam's structural reform efforts in the early 2000s and decided to reinvest in the country (UNCTAD, 2007). Hence, the need for FDI had indirectly motivated the Vietnamese government to accelerate the reform process, with SOE reforms and equitization becoming essential components in demonstrating a serious commitment to economic reform.

Overall, the period from 1998 to 2006 marked the most rapid phase of equitization in Vietnam's economic history. This breakthrough pace was driven by three key factors. First, the domestic economy experienced profound transformations, particularly a shift toward a service-oriented economy, accompanied by the explosive growth of the private sector. Second, institutional bottlenecks

[64]See Appendix Table 3.5.

that had previously hindered the process were gradually removed, contributing to the establishment of a more transparent and effective legal framework for equitization. Lastly, and equally important, were external influences. Pressures from international financial institutions and foreign enterprises both directly and indirectly compelled Vietnam to accelerate market-oriented economic reforms, particularly in SOE restructuring and equitization.

3.5 Slow equitization and the rise of state economic groups (2007-2018)

In 2007, Vietnam's SOE reform process entered a new phase. The rapid pace observed during 1998-2006 has slowed significantly, with equitization efforts decreasing after 2007 (Fujita, 2017). Intuitively, this reduced momentum can be explained by the "low hanging fruit" of earlier reforms, which saw the relatively easy sales of small and medium-sized SOEs in non-strategic sectors (Megginson & Netter, 2001; Odle, 1993). The remaining SOEs often operate in important sectors, are relatively larger in size, have more intricate ownership and management structures, and carry substantial financial and debt obligations. Therefore, selling their assets has become much more difficult (L. N. Dang et al., 2021).

In terms of equitization, only 150 SOEs were equitized in 2007, a decrease of 2.5 times compared to 2006. The following years saw a continuous drop in the number of equitized SOEs, reaching a low of just 14 in 2011. From 2012, equitization gained momentum, peaking at 220 equitized SOEs in 2015, before falling again in subsequent years. Overall, between 2007 and 2018, 21.6% of all SOEs were equitized, averaging 85 enterprises per year. Compared to the period from 1998 to 2006, with an average of 402 equitized enterprises per year, the pace of equitization during 2007-2018 was significantly slower.

Why, after eight years of rapid equitization, did SOE divestiture activities suddenly slow down? As in the previous phase, the pace of equitization during this period can be explained by three main factors. First, the period between 2007 and 2018 was generally marked by poor economic conditions, low growth, and global instability, all of which likely limited the availability of capital for

investment in equitized SOEs. Second, institutional hurdles, such as the lack of specific guidelines and a clear timeline for equitization, may have further impeded progress. Finally, international factors, including globalization and Vietnam's participation in the WTO, may have also motivated domestic actors to deliberately slow down the SOE divestment process during this period.

3.5.1 Domestic factors: economic crises

In 2008, the global financial crisis struck Vietnam. The subprime mortgage crisis, which originated in the U.S., quickly spread to financial, monetary, economic, and employment sectors worldwide. As major consumer markets contracted, the export markets for Vietnamese goods also shrank. Vietnam's exports dropped by 7.7% in 2009 from a peak of 77.9% in 2008.[65] This decline led to a reduction in foreign currency earnings, widespread bankruptcies, and millions of job losses. Similarly, imports fell significantly, from 93.1% in 2008 to 11% in 2009 (Abbott & Tarp, 2012). FDI, after exploding with WTO accession in 2007, levelled off after the global financial crisis, as the reduced financial capacity of multinational corporations made it difficult to attract new FDI projects and implement the registered ones. Stock prices, especially those of commercial banks, dropped sharply, with the market capitalization of listed companies falling from 40% of GDP in 2007 to 17.5% in 2008. As the stock market collapsed, the real estate market also froze. The global economic and financial crises undoubtedly had severe negative impacts on Vietnam's economy (Abbott & Tarp, 2012; Abbott et al., 2009).

The global financial crisis plunged Vietnam into a prolonged period of economic depression.[66] The crises in both domestic and international markets clearly had significant implications for the SOE divestment process in Vietnam. The lack of capital during this time made it more challenging to attract domestic and foreign buyers for SOEs. Furthermore, with the collapse of the

[65] During the Global Financial Crisis, the hardest hit commodities were the important exports from Vietnam, such as heavy industrial products and mineral exports (e.g., crude oil), agricultural products (e.g., coffee, rice), and other labor-intensive manufactured goods (e.g., clothes and shoes) (Abbott & Tarp, 2012).

[66] This extended economic slowdown lasted nearly a decade, with growth rates only returning to pre-crisis levels in 2015. This recovery was largely due to rising export demand in the electronic components trade, which effectively connected Vietnam to East Asian production networks and dramatically altered its export composition (Athukorala & Tien, 2012; Leung, 2015).

stock market, the SIPs of SOEs also faced difficulties. Consequently, during this period, the government's focus shifted to stabilizing the economy and addressing external shocks rather than pursuing aggressive, fast-paced SOE divestiture policies.

3.5.2 Institutional factors: The Evolving Legal Framework

From 2007 to 2018, as in earlier periods, SOE reform was one of the top priorities in Vietnam's economic reform agenda. However, this period differs in that it can be further divided into two distinct subperiods, each with rather contrasting views on SOEs. The first subperiod, from 2007 to 2011, was marked by the government's focus on developing institutions to consolidate and strengthen large SOEs. During this time, conglomerates in the state sector expanded rapidly into virtually all kinds of business areas, leading to inefficiencies and instabilities that became apparent after the Global Financial Crisis of 2007–08.

Consequently, the second subperiod from 2011 to 2018 marked a time when, after several SEGs' scandals came to light, the view of SOEs began to shift 180 degrees. GCs and SEGs, previously considered the "iron fists" of the economy, became the main targets of economic restructuring.[67] The government also made it clear that, in order to reduce economic inefficiencies and fiscal burdens, it was no longer appropriate for SOEs to be considered the foundation for industrial and economic development.[68] The government thus advocated for a revised institutional framework to improve transparency in the SOE sector and the quality of public investment channeled through these enterprises (Deprez, 2018). In other words, the overarching policy goal after 2011 was to restructure the economy to be less dependent on SOEs, especially the large ones—a major paradigm shift from the previous phase (Abbott & Tarp, 2012).

With this abrupt shift in SOE reform approach, the institutional framework

[67] According to the Socio-economic Development Plan 2011-2015, economic restructuring is the process of reorganizing and restructuring the economy on a larger scale and at a faster pace to achieve the goal of improving labor productivity, quality, efficiency, and competitiveness of the economy. The three focal points of the economic restructuring plan during this period are: (1) restructuring of public investment, (2) restructuring of the financial sector, and (3) restructuring of SOEs (with a focus on economic groups and corporations).

[68] National Assembly's Resolution No.10/2011/QH13.

for equitization was progressively refined. Decree 109 (2007),[69] for instance, expanded the scope of equitization to include even SEGs and GCs.[70] Decree 59 (2011) further improved the equitization process by limiting strategic investors to three per equitized SOE and extended share transfer restrictions for these investors from 3 to 5 years. Decree 109 (2007) introduced new valuation methods, such as the discounted cash flow approach for financial institutions, and required that land use rights be valued based on market prices. Building on this, Decree 59 (2011) authorized provincial-level authorities to adjust land prices to better reflect market values, further refining the valuation process. Subsequent amendments, including Decree 189 (2013) and Decree 116 (2015), aimed to further streamline enterprise valuation procedures and optimize the selection of valuation consultants. However, these changes seemed to have effects contrary to the intended outcomes for the equitization process.

For instance, Decree 59 (2011) allowed provincial-level People's Committees to adjust land prices during the valuation process to better reflect market values. While the goal was to ensure more accurate and transparent asset valuation, this decentralization of authority led to inconsistencies in land valuation across regions. Some provinces reportedly inflated land prices, discouraging investors due to the higher capital requirements, while others undervalued land to expedite the equitization process, raising concerns about state asset losses. Moreover, the limitation of strategic investors to three per equitized SOE, along with the extended share transfer restriction from 3 to 5 years, although designed to ensure long-term commitment, made SOEs less attractive to potential investors seeking quicker returns. The complexity introduced by multiple valuation methods, such as the discounted cash flow approach, also increased procedural delays, especially for larger SOEs with diverse asset portfolios. As a result, instead of accelerating equitization, these policy adjustments introduced new layers of complexity and administrative hurdles, slowing down the equitization process and reducing market participation.

Regarding SOE divestment process, the government also progressively refined its legal framework. Law No. 69/2014/QH13 on "Management and Use of

[69] Decree 109 (2007) replaced Decree 187 (2004).

[70] This decree also eliminates corporate income tax incentives for newly equitized enterprises and eases support for addressing redundant workers following their transition to joint-stock companies (D. L. Truong & Tran, 2016).

State Capital Invested in Production and Business at Enterprises," for instance, regulated that the divestment process can be done through various methods, depending on the company's listing status and the transfer value. For listed companies, transfers must follow securities law, using order matching or negotiated transactions. Unlisted companies must use public auctions, competitive offerings, or direct negotiations. Transactions of 10 billion VND or more must be made on the Stock Exchange. Authorized persons are not allowed to transfer shares to their relatives. Decree 91 (2015) provides further guidelines to implement the provisions of Law 69/2014/QH13 in the areas of selling, liquidating, or transferring assets. To ensure transparency, the sale of state-owned assets must be conducted through public auctions, and assets must be appraised by an authorized valuation organization. Before selling, liquidating, or transferring state-owned assets, enterprises are required to prepare a detailed plan and report to the state capital representative agency for review and approval. Decree 32 (2018) later amends and supplements several provisions of Decree 91 (2015), especially with regards to the selling of assets in equitized SOEs. Decision 58 (2016) established specific rules to classify SOEs by the proportion of state capital to be retained after equitization.[71]

Similar to the policy changes in the equitization process, the adjustments to SOE divestment regulations also resulted in unintended consequences. While the objective of Decree 91 (2015) and subsequent amendments like Decree 32 (2018) was to ensure greater transparency and fairness in the divestment of state assets, the added layers of regulation often complicated the process. For example, the requirement for public auctions and authorized valuation appraisals, although aimed at preventing asset undervaluation and corruption, led to prolonged administrative delays and inconsistencies in implementation. Moreover, the restrictions imposed by Law No. 69/2014/QH13, such as prohibiting share transfers to relatives and mandating transactions above 10 billion VND to occur on the Stock Exchange, while well-intentioned, created significant barriers for smaller investors and limited market flexibility.

[71]The classification includes: SOEs retaining 100% state capital for critical sectors like defense, security, and essential public services; SOEs retaining over 65% for sectors such as finance, banking, telecommunications, aviation, and energy requiring state control; SOEs retaining 50-65% for sectors needing state participation but not full control; and SOEs retaining less than 50% or no state capital for sectors where direct state management is unnecessary.

As a result, rather than accelerating the divestment process, these legal refinements added layers of complexity that ultimately slowed the progress. Although the continuous institutional developments contributed to a more structured regulatory environment for SOE restructuring and led to improvements in labor productivity in SOE sectors,[72] a significant gap between legislation and actual implementation emerged (Knutsen & Khanh, 2020; Wacker, 2017). While this gap may have been due to administrative bottlenecks, vested interests in the SOE sector, or inconsistent enforcement mechanisms (Wacker, 2017), it is also plausible that this delay was deliberate—potentially serving as domestic actors' strategic response to competitive pressures associated with globalization.

3.5.3 External factors: Divergent Impacts of Globalization on SOE Reform

Viet Nam became a member of the WTO in January 2007, after a 12-year negotiation process. Shortly after Vietnam joining WTO, the Party clarified the intention to restructure, develop, and increase the competitiveness of SOEs so as to make them the leading force in international economic integration.[73] The focal policy to achieve this end was to reorganize some of the largest SOEs into even larger and more diversified SEGs in late 2005.[74] With their extra-large size and a range of privileges provided by the State, SEGs are expected to act as monopolies or at least dominant players in key sectors such as energy, mining, electricity, and telecommunications and/or compete on a global scale (Beeson & Pham, 2012; Fujita, 2017; M. H. Nguyen & O'Donnell, 2017; Painter, 2003).[75] Of course, the idea of establishing large, multi-sector SOEs was not new, as

[72] See Appendix Figure 3.2.

[73] Less than one month from the date Vietnam officially joined the WTO, the Central Committee issued a special resolution (Resolution No. 08-NQ/TW dated 5 February 2007). This resolution reaffirms the Party's approach to the SOE sector, stating the imperative to enhance SOEs' competitiveness by "effectively transforming some state general corporations into state economic groups."

[74] A State Economic Group, according to the 2005 Enterprise Law, is a large-scale group of companies formed by consolidating legally independent SOEs. As some SEGs resulted from the merger of GCs, they often have higher capital accumulation and larger scales compared to the former GCs.

[75] However, unlike General Corporations, the scope of operation of the State Economic Group has expanded far beyond domestic activities to include international endeavours. In terms of corporate management, these conglomerates do not have a legal identity and therefore do not follow Enterprise Law. The government directly regulates and guides the criteria, organizational management, and operations of economic groups.

the creation of General Corporations in the mid-1990s essentially followed the same concept. However, the decision to upgrade GCs and certain large SOEs into massive State Economic Groups can be seen as a bold and strategic move. But what exactly motivated the Vietnamese government to make such a daring decision? And more importantly, why was it pursued specifically in the latter half of the 2000s?

Three perspectives exist that may explain the mechanism through which globalization, characterized by increasing deeper economic integration, influences the reform processes of SOEs in Vietnam. *First*, it has been found that countries sometimes respond to globalization pressures by increasing public spending and state intervention to mitigate the social and economic disruptions caused by market liberalization (Obinger et al., 2016; Rodrik, 1998). Under the "compensation hypothesis," the rapid transformation of large SOEs and GCs into SEGs can be viewed as a preemptive strategy by the government to address anticipated competitive pressures following Vietnam's WTO accession in 2007 (Vu-Thanh, 2017). As Vietnam embraced international trade and deeper economic globalization, SEGs were envisioned as tools to strengthen key economic sectors, compensating for the perceived weaknesses of the domestic private sector, which was deemed ill-equipped to compete effectively with multinational corporations on both domestic and international scales (Leung, 2015). As their dominant position was reinforced, the government could use industrial policies, in principle targeted at an entire industry, to deliberately support selected SEGs without being accused of violating the "national treatment" principle (Vu-Thanh, 2017).

Second, the "efficiency hypothesis" suggests that globalization exerts pressure on governments to reform SOEs by adopting market-driven practices, including privatization, deregulation, and liberalization, to enhance competitiveness in global markets (see, e.g., Schneider and Häge, 2008; Obinger et al., 2016). Under this framework, SOE reform is seen as essential for aligning domestic industries with international performance standards and attracting foreign investment. In the case of Vietnam, consolidating large SOEs into SEGs appeared to be a strategic response aimed at enhancing competitiveness and efficiency, especially considering that GCs and large SOEs had often fallen short of expectations in

practice (Dapice et al., 2008). With large SOEs struggling with inefficiencies and financial losses, it was difficult to expect them to respond positively to changes in incentive structures brought about by trade liberalization. Consolidating these SOEs and GCs into even larger economic entities, rather than restructuring or dissolving them, emerged as another viable option. In theory, this strategy would create larger, more resilient, and competitive SOEs better equipped to withstand the pressures of global competition in a liberalized trade environment (Obinger et al., 2016).[76]

Third, countries may formally adopt international obligations and standards for globalization to align with global norms; however, the implementation of these commitments often remains inconsistent or incomplete, as domestic institutional constraints, conflicting interests, or political considerations can delay or undermine enforcement (Walter, 2011; Webster, 2014). Existing evidence indeed suggests that Vietnam sometimes accelerated its legislative process to appear aligned with international standards and signal institutional progress; yet, in practice, the details and timelines for implementation were often vague or delayed, with enforcement lagging far behind the legislative commitments during this period (Knutsen & Khanh, 2020; Vu-Thanh, 2017; Wacker, 2017). For instance, trade agreements such as the Trans-Pacific Partnership (TPP) require Vietnam to ensure a level playing field among economic actors and thus, they include detailed provisions regulating SOE activities and their relationship with the government (Fujita, 2017; H. H. Le, 2017). In response, Vietnam has repeatedly revised the definition of SOEs to meet international demands. Prior to the WTO negotiations, SOEs were defined as firms with more than 50% state ownership to align with international standards. However, during TPP negotiations, the definition was adjusted to firms with 100% state ownership, effectively reducing the number of firms categorized as SOEs and enabling Vietnam to present a more favorable profile (see Table 3.2 below). While such a strategy facilitates Vietnam's integration into global markets, symbolic reforms may result in inconsistencies within the legal framework, creating opportunities for legal circumvention and asset stripping.

[76]Under WTO rules, many traditional methods of supporting SOEs, particularly in the manufacturing sector, were restricted. This credit crunch was clearly a big shock for SOEs, which used to rely almost entirely on easy credit without having to worry about its efficiency.

Table 3.2: Changes in the Definition of State-Owned Enterprises in Vietnam, 1995–2018

Period	Legal Basis	Definition of State-Owned Enterprise (SOE)
Before 2005	Law on State Enterprises (1995, 2003)	Enterprises in which the State owns 100% of the charter capital.
2005–2014	Law on Enterprises (2005, 2009)	Enterprises in which the State owns more than 50% of the charter capital.
2014–2018	Law on Enterprises (2014)	Enterprises in which the State owns 100% of the charter capital.

Source: Author's compilation from Law on State Enterprises (1995, 2003), Law on Enterprises (2005, 2009, 2014).

Hence, external forces (e.g., globalization, economic integration, and trade deals) could have facilitated sufficient consensus within the domestic actors to slow down the equitization process and rapidly scale up existing SOEs in both size and scope (Vu-Thanh, 2017). In countries like Japan and Korea, such state-backed diversified conglomerates have played a significant role in driving economic growth in these countries (K. Kim, 2013; McGuire & Dow, 2009). What about Vietnam's SEGs? Did they have a pronounced impact on the Vietnamese economy, and more importantly, was it a positive one?

Considered the commanding heights of the national economy, Vietnamese SEGs enjoy favorable operating conditions and various privileges provided by the government, such as preferential access to credit, government contracts, reduced tax rates, land-use rights, and markets (H. C. Le et al., 2014; Leung, 2010; M. H. Nguyen & O'Donnell, 2017; Q. Truong & Rowley, 2014). These privileges, although not direct subsidies, introduced some forms of soft budget constraints for these SEGs. Consequently, during this period (2007–2018), Vietnam encountered the very problems it had sought to avoid decades earlier: financial and operational inefficiency among SOEs at the micro-level, and instability at the macro-level.

Financial and operational inefficiency among SEGs was inevitable due to their access to diverse and easy funding sources, including capital from their financial subsidiaries, surplus funds from insurance companies, and, most importantly, loans from commercial banks owned by the SEGs themselves. In favorable economic conditions, these abundant internal sources of capital reduced

their reliance on government subsidies or direct credit from other commercial banks and enabled them to diversify into multiple non-core business areas, such as banking, securities, tourism, and real estate.[77] Moreover, with ownership of banks and the corresponding ability to provide loans for themselves, SEGs established numerous branches across the country and provided easy credit to them.[78] By the end of 2010, each SEG in Vietnam had an average of nearly 29.7 branches, four times higher than China's figures (Vu-Thanh, 2017). Over time, SEGs' inefficiencies became increasingly apparent: they absorbed a larger share of inputs than their contribution to output, were outperformed by private and FDI firms in terms of efficiency, and incurred extremely high levels of bad debt (Kokko & Sjoholm, 2000).

With these inefficiencies at the micro-level, there was a corresponding impact on the Vietnamese macroeconomy at large (Leung, 2015). In 2008, inflation jumped to 23% (see Appendix Figure 3.1). The stock market bubble deflated, and the real estate bubble burst. The profitability of commercial banks decreased dramatically, and the amount of non-performing loans increased uncontrollably. By this time, the government realized that more than half of the bad debts in the banking sector belonged to SEGs (Leung, 2015), and high inflation in Vietnam was primarily due to the policy of pumping credit into these state conglomerates earlier (V. Q. Vu, 2009).[79] By the end of 2011, GCs and SEGs had suffered a combined loss of US$1.5 billion. Vietnam was on the verge of a banking crisis, struggling to mobilize capital both domestically and externally.

In sum, while globalization and favorable economic conditions during the 1998-2006 period significantly accelerated SOE reforms in Vietnam, particularly equitization, the period between 2007 and 2018 experienced a period where globalization actually slowed down pace of equitization. Domestic actors, expecting the competitive pressures brought about by globalization, resisted further sub-

[77]The wave of SEGs investing into the financial sector began in 2005. During the period 2006–2008, their investment in the financial sector surged, with nearly 60% of it directed toward banks. These acquisitions of commercial banks provided SEGs with an abundant source of capital to invest and expand their businesses (Vu-Thanh, 2017).

[78]These units evolved within complex structures of "interlocking directorships and finance companies" (Ishida, 2013, p. 25), created a new form cross-ownership among SOEs, transforming state subsidies into internal transactions between companies (Dapice et al., 2008; Pincus, 2015).

[79]To boost aggregate demand and restore high growth rates, investment in SOEs and SEGs continued to increase substantially after the Global Financial Crisis of 2007-08 (Abbott & Tarp, 2012). However, this only worsened the situation.

stantive, meaningful SOE reforms. This resistance led to a policy shift where the government consolidated large SOEs into SEGs as a strategic defense against global competition, aiming to create national champions capable of competing on a larger scale. However, this approach not only reduced the momentum of equitization but also contributed to inefficiencies, poor governance, and resource misallocation, ultimately undermining the original objectives of SOE reforms.

3.6 The characteristics of privatization in Vietnam

Based on the analysis above, this section addresses the central question of this chapter, as outlined in the Introduction: What are the core characteristics of privatization in Vietnam? Before delving into privatization, I first identify the key features of SOE reform and equitization.

In terms of SOE reform, it is evident that distinct historical periods experienced different approaches to reform, shaped largely by a combination of the prevailing economic conditions, domestic actors' priorities, and international pressures. In the late 1980s, just a few years after Đổi Mới in 1986, Vietnam implemented a number of rapid and decisive SOE reforms (L. N. Dang et al., 2021; Popov, 2007). Vietnamese SOEs were granted greater control over their operations, including decision-making authority regarding pricing and production. And then, in the early 1990s, a range of administrative measures aimed at restructuring the SOE sector was implemented. Excessive employment was substantially reduced, SOEs were subjected to hard budget constraints, transparency improved, and competition increased as private firms entered various previously state-dominated markets (Srinivasan et al., 1996).

However, at the same time, equitization was extremely slow, with only three firms being equitized per year from 1992 to mid-1998, on average. Then, between 1998 and 2006, the number of equitizations surged, with an average of 379 enterprises equitized annually. As analyzed above, this acceleration in equitization was driven by favorable macroeconomic conditions, comprehensive developments in institutional frameworks related to equitization and enterprise laws, and domestic actors' willingness to increase the efficiency of the SOE sec-

tor amidst rising competition. Then, from 2007 to 2018, the pace of equitization slowed down, with only 85 enterprises equitized annually, on average. This deceleration can be attributed to the reduced number of SOEs with 100% state ownership eligible for equitization, a poor macroeconomic environment during the global financial crisis that also negatively affected Vietnamese economy, and, not less importantly, shifting perspectives among domestic actors about equitization in response to international pressures. In particular, these external dynamics, such as concerns over foreign dominance in critical sectors, could have triggered the government's will to compensate for the perceived weakness of its own SOE sector by retaining greater control over strategic industries.

An important development in this direction was the creation of large SOEs in key industries, first in the mid-1990s with the creation of GCs and again in the mid-2000s with the formation of SEGs. However, the Asian Financial Crisis 1997-8 and the Global Financial Crisis 2007-8 exposed structural issues within these large SOEs in Vietnam. In response, from 2011 onward, the Vietnamese government adopted a new approach that focuses on reducing dependence on SOEs, particularly large ones like SEGs and GCs. Like equitization, SOE reforms were also periodic and highly susceptible to the actual economic performance, the prevailing institutional frameworks, and the external factors.

Therefore, the most prominent characteristics of SOE reforms and equitization process in Vietnam is that they have been highly susceptible to changes in institutional and contextual factors. These elements have shaped the pace and intensity of reforms, with periods of accelerated equitization often driven by favorable economic conditions and international commitments, while slowdowns have coincided with financial crises or shifts in policy priorities in response to anticipated competitive pressures.

What about the privatization process? Do similar patterns of variation across historical periods emerge, or does privatization follow a more consistent trajectory? In a transition country like Vietnam, market-oriented economy could have resulted from two forces: "top-down" privatization, in which SOEs are sold to private owners, and "bottom-up" privatization, in which non-state firms entered the market and grew (Sachs, 1992). These two forces operate in tandem to reduce the role of the SOE sector and increase the influence of

the private sector in the economy, reaching a point where the private sector becomes a key driver of economic activity, capital formation, and employment generation.

Thus, to better capture the multifaceted nature of privatization, I define it in two complementary ways. First, using data from the GSO enterprise survey conducted between 2000 and 2019, I classify firms into two groups: (1) SOEs, comprising all firms with over 50% state ownership, and (2) non-SOEs, which include all other firms. Firms that changed their legal status from category (1) to category (2) are identified as privatized firms. Next, I aggregate the number of privatized firms each year to get the total number of annual privatizations.

Privatization, defined in this way, has followed a consistent and gradual trend with insignificant fluctuations over time. Between 2001 and 2018, an average of approximately 283 firms were privatized annually, with significantly less variation compared to equitization (see Table 3.3).[80] Additionally, Figure 3.6 shows that the annual number of equitized firms follows clearer phases, whereas privatization has occurred in a steadier manner without distinct acceleration or deceleration waves without any significant breakthroughs for nearly two decades. Moreover, average asset value of a privatized firm was only about one-fourth that of an equitized SOE, while the average total employment of a privatized firm was less than half the workforce of an average equitized SOE (see Table 3.4). Thus, both indicators of firm size, average employment and average asset, suggest that privatization in Vietnam has mostly focused on smaller firms.

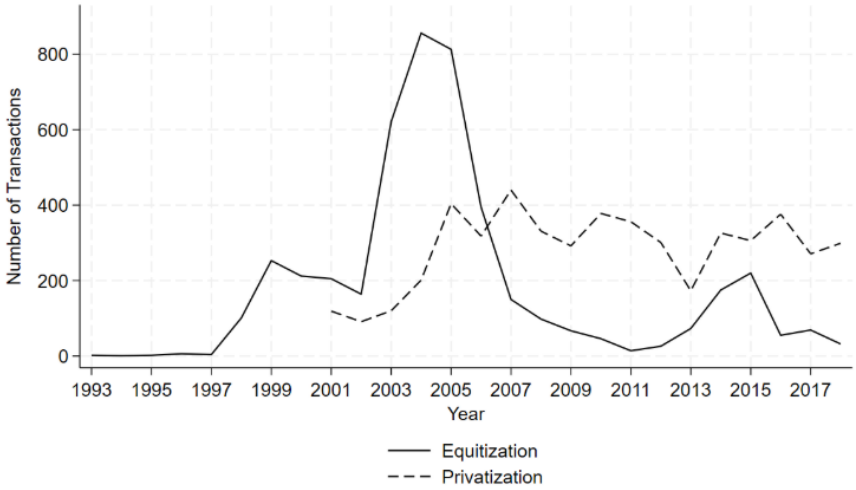
Table 3.3: Summary Statistics of Equitization and Privatization Transactions from 2001 to 2008

Variable	**Mean**	**Std. Dev.**	**Min**	**Max**
No. of equitization	226.611	267.086	14	856
No. of privatization	283.444	102.370	91	440

Source: Author's calculations based on GSO's enterprise survey, 2001–2018.

[80]The less pronounced variation in privatization compared to equitization is reflected in a lower standard deviation (102.370), only about half that of equitization (267.086).

Figure 3.6: Number of Equitization and Privatization



Note: The number of equitizations is provided by the Steering Committee for Enterprise Reform and Development. Privatization figures are calculated by the author based on the General Statistics Office (GSO) enterprise surveys (2000-2019). As the GSO enterprise survey is only available from 2000 onwards, privatization data is calculated from 2001 to 2018.

Table 3.4: Size Comparison: Equitized vs. Privatized Firms

Metric	**Equitized SOEs**	**Privatized SOEs**
Average Employment (number of employees)	436	208.8
Average Asset (million VND)	616,778	149,952

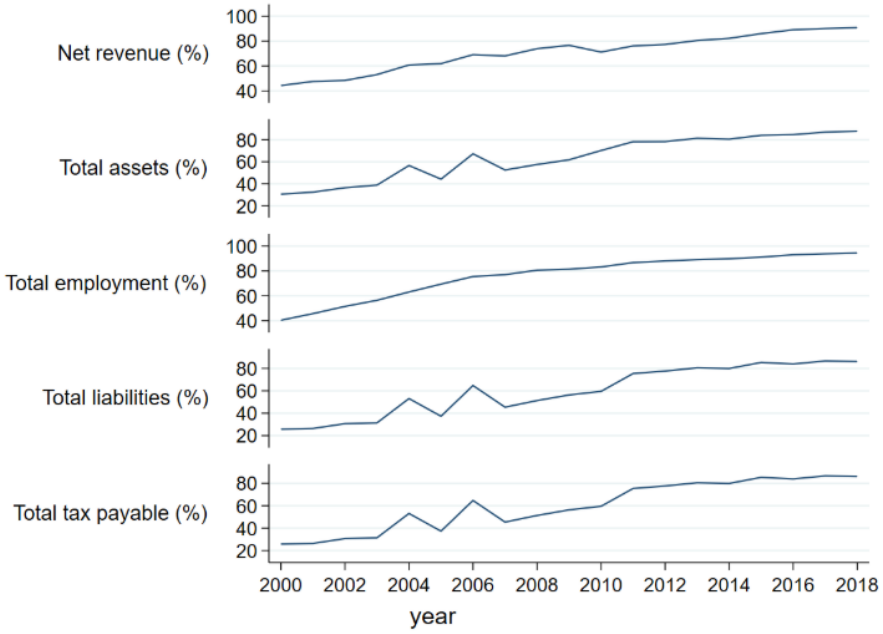
Note: Assets have been deflated using 2010 as the base year.

Source: Author's calculations based on GSO's Enterprise Survey.

Second, to construct an indicator for "bottom-up" privatization, I develop a proxy representing the expansion of the private sector in relation to the state sector (Myant & Drahokoupil, 2010, p. 249). This proxy is computed by dividing the annual output of non-SOEs by the total output of all firms in Vietnam. Privatization, defined this way, also progressed steadily. The market share of non-state firms increased from 44.3% in 2000 to 90.8% in 2018 (see Figure 3.7). The increasing contribution of the private sector can also be observed across key indicators, including total assets, total labor, total liabilities, and taxes paid to

the State. However, these increases were relatively slow, for instance, it took nearly two decades for the employment share of the non-state sector to rise from 40% in 2000 to nearly full privatization by 2018. [81]

Figure 3.7: The share of non-state sector across key indicators (2000-2018)



Note: The share of the non-state sector is derived by subtracting the state sector's share from 100%. Source: Author's calculations based on data from the General Statistics Office (GSO) Enterprise Survey.

The privatization process in Vietnam, whether narrowly defined as the number of SOEs transferred to the private sector or more broadly as the diminishing role of the state in the economy, has been relatively gradual. This gradualism is perhaps the defining characteristic of Vietnam's privatization process. A gradualist approach to privatization emphasizes steady, incremental reforms rather than rapid, large-scale shifts in ownership and control. In Vietnam, this method allowed for a smoother economic transition by avoiding disruptive shocks often associated with rapid privatization. It provided the government with greater control over the pace and sequencing of reforms, enabling adjustments based

[81] It is important to note that, as shown in Appendix Table 3.4, from 1976 to 1995, the share of the state sector in Vietnam's economy actually increased from 27.7% to 40.2%. Thus, privatization did not follow a linear trend but instead exhibited a U-shaped pattern.

on economic conditions and policy outcomes. This deliberate pace also allowed for the development of institutional frameworks necessary to support a market economy, such as legal structures for property rights, financial market regulations, and corporate governance standards. However, as I will demonstrate in Chapter 5, this slow pace of privatization was associated with increased market concentration in certain industries.

3.7 Conclusion

After Đổi Mới, SOE reform has been a central focus throughout Vietnam's reform strategy. However, this process has occurred at varying speeds and degrees, reflecting drastic changes in economic, institutional, and international contexts over time. During the wartime period, SOEs played a dominant role in North Vietnam's economy because they aligned with the centrally planned economic model and the need to allocate limited resources for non-economic purposes. After the wars, the inherent weaknesses of SOEs became apparent, particularly during the socio-economic crisis of the late 1980s. This led to partial SOE reforms aimed at granting enterprises greater autonomy and increasing transparency in SOE sector, mainly through administrative measures such as liquidation, mergers, and re-registration. It was not until the late 1990s that equitization and privatization efforts gained significant momentum. In this respect, compared to most transition countries, where privatization was conducted during the early 1990s, the privatization process in Vietnam occurred relatively late.

Moreover, globalization and international economic integration have profoundly influenced Vietnam's SOE reform process. On one hand, global economic integration required Vietnam to accelerate SOE reform and equitization, especially in the lead-up to its accession to the WTO in 2007. On the other hand, competitive pressures from multinational corporations compelled the government to intervene deeper in the economy.[82] Therefore, in parallel with privatization, the government established large SOEs in strategic sectors,

[82]See Obinger et al. (2016) for more details on the efficiency and compensation hypothesis. On one hand, economic integration may lead to privatization, deregulation, and liberalization (efficiency hypothesis); on the other hand, it may also trigger higher public spending and deeper state intervention.

the so-called GCs and SEGs, expecting them to become the "iron fists" of the economy in the globalization era. However, these large SOEs sometimes strayed from their core missions, resulting in poor performance and mounting debt. As a result, from 2011 onwards, Vietnam adopted a new approach, focusing on restructuring and reducing reliance on SOEs, especially the large ones. This marked a historic, crucial shift in Vietnam's SOE reform trajectory.

Equitization, the primary method of SOE reform, also experienced key developmental milestones. Before 1998, the equitization process was cautious and extremely slow due to an underdeveloped institutional framework. After 1998, under external pressures and with the issuance of key legal documents such as Decree 44, equitization accelerated, primarily targeting small SOEs in non-strategic sectors. However, after 2007, the process slowed again due to structural barriers, vested interests, and the negative impacts of the Global Financial Crisis (H. H. Le, 2017; Wacker, 2017). Thus, like SOE reform, the equitization process in Vietnam was highly cyclical, with at least 3 distinct phases: slow (1992–1998), rapid (1998–2006), and slow again (2007-2018).

In contrast to SOE reform and equitization, privatization in Vietnam progressed steadily. This is evident in the two definitions of privatization that I have used in this chapter: the declining number of enterprises privatized annually, and a consistent decrease in the share of the SOE sector across key indicators such as revenue, assets, labor, and tax contributions to the state budget. Under both definitions, Vietnamese privatization could be characterized by gradual and steady progress.

Differentiating between the two concepts of privatization also opens two promising avenues for future research. The first approach, a bottom-up perspective, views privatization as the increasing role of the private sector in the national economy (see, e.g., Sachs, 1992; Myant and Drahokoupil, 2010, p. 249). This approach would be particularly suitable for macro or industry level studies that analyze the relationship between privatization and other macroeconomic variables such as inflation, economic performance, or market structure. Among these, the relationship between privatization and market structure remains, to the best of my knowledge, an underexplored area of research. For this reason, Chapter 5 of my thesis is dedicated to examining this relationship in greater

detail.

The second approach to defining privatization, a top-down perspective, focuses narrowly on the process of state divestment from SOEs, leading to the transfer of control over firms from the State to the private owners (Jomo, 2008, p. 201; Beeson and Pham, 2012). In this regard, despite Vietnam having a relatively large body of research on equitization (see, for example, D. L. Truong, 2006; D. L. Truong and Tran, 2016; Van Tan and Trung, 2019; T. Q. Vo, 2012), empirical studies evaluating the actual impact of privatization on firm performance remain relatively scarce. This scarcity may be partly attributed to the sensitive nature of privatization under this definition, as it involves the relinquishment of state control, an idea that can be politically and socially contentious in a socialist country where state ownership is both ideologically and historically entrenched. Furthermore, the lack of comprehensive and accessible data on privatization resulting from this opaque nature of state divestment could be another challenge for researchers, especially when compared to the more publicly available data on equitization.[83] This gap in empirical studies creates an opportunity for further studies to examine the actual economic effects of privatization on firm performance in Vietnam.

[83]In Vietnam, data on annual equitization is published by the Steering Committee for Enterprise Reform and Development at: http://m.doimoidoanhnghiep.chinhphu.vn/so-lieu/. However, no such data is available for "privatization."

Appendix Tables

Table 3.1: Major State Industrial Factories in Northern Vietnam Before 1955

Industries	**Locations**
Coal mines	Tân Trào (Tuyên Quang), Lam Sơn and Tân Thành (Bắc Thái), Bố Hạ (Hà Bắc), Quyết Thắng (Ninh Bình), Khe Bố (Nghệ An), Long Châu (Hà Tĩnh)
Metal mines	Tĩnh Túc tin mine (Cao Bằng), Bắc Sơn lead and zinc mine (Tuyên Quang), Đông Khê phosphate mine (Hà Bắc), and Cát Văn (Nghệ An)
Mechanical engineering	Trần Hưng Đạo (Tuyên Quang), Liên khu IV, Huỳnh Ngọc Huệ
Textile	Thống Nhất (Vĩnh Phúc), Tháng Tám (Bắc Thái), Quyết Thắng (Nghệ An), Quảng Xuân (Quảng Bình)
Paper	Hoàng Văn Thụ (Bắc Thái), Tự Do (Yên Bái), An Khê (Tuyên Quang), Độc Lập and Lửa Việt (Vĩnh Phú), Xung Phong and Đông Nam (Nghệ An), Đông Minh and Lam Sơn (Thanh Hóa), Đồng Quang (Hà Tĩnh), Huỳnh Ngọc Huệ (Quảng Bình)

Source: H. K. Tran (1996, pp. 34–35)

Table 3.2: Annual Growth Rates of Key Indicators, 1955–1975 (%)

Indicators	**1955–1960**	**1961–1965**	**1966–1970**	**1971–1975**
Gross Agricultural Product	6.2	4.2	-0.1	1.2
Gross Industrial Product	36.6	13.6	1.0	10.2
Gross Social Product	13.5	9.6	0.7	7.3

Source: V. T. Tran et al. (2000).

Table 3.3: Gross Social Product Across Sectors (%)

Year	Agriculture	Industry & Construction	Others
1957	50.5	31.6	17.9
1961	34.6	44.0	21.4
1967	35.5	47.7	16.8
1970	36.0	50.7	13.3
1975	29.0	55.3	15.7

Source: V. T. Tran et al. (2000).

Table 3.4: Share of State vs. Non-State Sectors in Vietnam's Economy (1976–1995)

Year	State Sector (%)	Non-State Sector (%)
1976	27.7	72.3
1980	19.8	80.2
1985	28.0	72.0
1990	31.8	68.2
1995	40.2	59.8

Source: V. T. Tran et al. (2000).

Table 3.5: Equitization vs. Privatization, 2001–2018

Year	Number of Equitizations	Number of Privatizations
1992	0	.
1993	2	.
1994	1	.
1995	2	.
1996	6	.
1997	4	.
1998	101	.
1999	253	.
2000	212	.
2001	205	119
2002	164	91
2003	621	120
2004	856	201
2005	813	404
2006	395	318
2007	150	440
2008	98	331
2009	67	292
2010	46	378
2011	14	356
2012	26	301
2013	73	173
2014	175	326
2015	220	306
2016	55	376
2017	69	271
2018	32	299

Note: Number of equitizations is provided by the Steering Committee for Enterprise Reform and Development's website. Number of privatizations is author's calculation based on GSO's enterprise surveys (2000–2021).

Table 3.6: Vietnam's Economic Sector, 2001–2005

Year	Agriculture, Forestry, and Fisheries (%)	Industry-Construction (%)	Services & Trades (%)
2001	23.24	38.13	38.63
2002	23.03	38.49	38.48
2003	22.54	39.47	37.99
2004	21.81	40.21	37.98
2005	19.30	38.13	42.57

Source: Ministry of Industry and Trade.

Table 3.7: FDI Project Registrations and Average Size, 1990–2006 (Million Dollars)

Year	Number of Projects	Registered Capital	Average Registered Capital per Project
1990	107	735	6.87
1991	152	1291	8.49
1992	196	2208	11.27
1993	274	3037	11.08
1994	372	4188	11.26
1995	415	6937	16.72
1996	372	10164	27.32
1997	349	5591	16.02
1998	285	5100	17.89
1999	327	2565	7.84
2000	391	2839	7.26
2001	555	3143	5.66
2002	808	2999	3.71
2003	791	3191	4.03
2004	811	4548	5.61
2005	970	6840	7.05
2006	987	12004	12.16

Source: UNCTAD (2007)

Table 3.8: Asset Valuation Problems in Vietnamese Equitization

Company	**Year of Equitization**	**Problem of Asset Valuation**
Quy Nhon Port	2013	Inappropriate methods for assessing asset quality and incomplete technical evaluation documentation, leading to undervaluation.
Airports Corporation of Vietnam	2016	Exclusion of valuable assets like runways from enterprise valuation, reducing overall value.
Waterway Transport Joint Stock Corporation (VIVASO)	2014	- Incorrect application of price index adjustments for assets, reducing state capital value by over 22 billion VND. - Failed to include 357,000 m^2 of water in its privatization plan.
Vietnam Feature Film Studio (VFS)	2014	Failure to properly value its historical brand, leading to undervaluation of state assets.

Source: Author's compilation based on the Government Inspectorate of Vietnam's Inspection Conclusion.

Table 3.9: Key policy documents mentioned in the text

Date	**Policy Document**
9/13/1968	Decision No. 140-CP on Experimenting Profit Distribution in State-Owned Enterprises
12/10/1970	Decision No. 236-CP on Promulgating the Provisional Regulations on the Distribution of Profits in State-Owned Industrial Enterprises
8/25/1982	Decree No. 146-HDBT on Strengthening Management of State-Owned Enterprises in Market Participation
11/30/1984	Decree No. 156-HDBT on Reinforcing Oversight and Management of State-Owned Enterprises' Market Activities
4/1/1985	Decree No. 306-BBT (Draft) on Supporting State-Owned Enterprises' Commercial Activities
6/26/1985	Decree No. 76-HDBT on Provisional Legal Regulations for Enhancing the Autonomy of State-Owned Enterprises

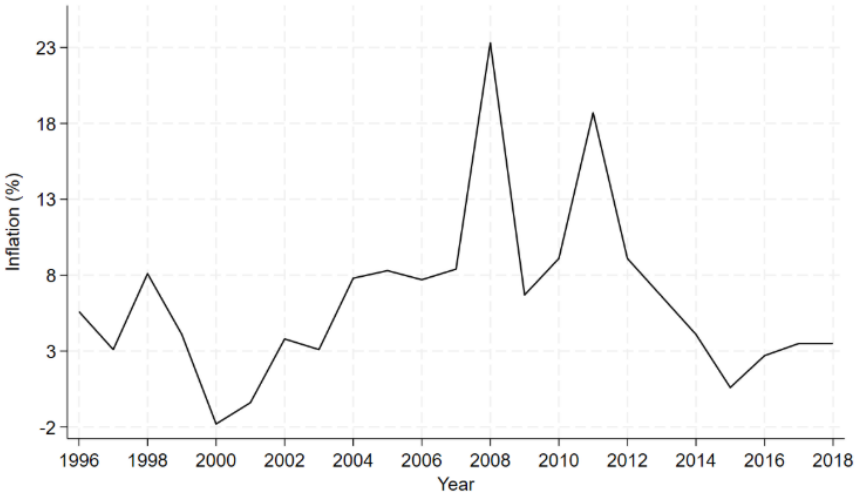
Date	Policy Document
11/14/1987	Decree No. 217-HDBT on Enhancing the Autonomy of State-Owned Enterprises
9/1/1989	Decree No. 101-HDBT on Conducting a Comprehensive Capital Survey of State-Owned Enterprises
11/20/1991	Decree No. 388-HDBT on the Establishment, Reorganization, Dissolution, and Bankruptcy of State-Owned Enterprises
3/4/1993	Decision No. 84/TTg on Instructions to Accelerate the Pilot Scheme for Converting State Enterprises into Shareholding Companies
3/7/1994	Decision No. 91/TTg on the Establishment of Large-Scale State Corporations
3/7/1994	Decision No. 90/TTg on the Reorganization of State-Owned Enterprises
3/17/1995	Resolution No. 10-NQ/TW on Guidelines to Promote the Equitization Process of State-Owned Enterprises
4/20/1995	Law on State Enterprises (1995)
5/7/1996	Decree No. 28-CP on the Transformation of a Number of State Enterprises into Joint-Stock Companies
4/4/1997	Notice No. 63-TB/TW on Measures to Enhance the Efficiency of the Equitization Process
8/20/1997	Directive No. 658/TTg on Additional Steps to Expedite the Transformation of State Enterprises into Joint-Stock Companies
6/29/1998	Decree No. 44/1998/ND-CP on the Transformation of State Enterprises into Joint-Stock Companies
6/19/2002	Decree No. 64/2002/ND-CP on the Transformation of State Enterprises into Joint-Stock Companies
11/26/2003	Law on State Enterprises (2003)
12/31/2003	Decision No. 271/2003/QD-TTg promulgating the regulation on supervision and evaluation of the operational efficiency of state enterprises

Date	Policy Document
5/13/2004	Decision No. 84/2004/QD-TTg on experimentally equitizing a number of state corporations
8/24/2004	Decision No. 155/2004/QD-TTg promulgating the classification criteria and list of to be-classified state companies and independent cost-accounting member companies of state corporations
11/16/2004	Decree No. 187/2004/ND-CP on the Transformation of State Companies into Joint-Stock Companies
12/3/2004	Decree No. 199/2004/ND-CP on the issuance of the financial regulation on State corporate and management of state capital invested in other enterprises
11/29/2005	Law on Enterprises (2005)
2/5/2007	Resolution No. 08-NQ/TW On Some Major Guidelines and Policies for Rapid and Sustainable Economic Development after Vietnam Becomes a Member of the World Trade Organization.
6/26/2007	Decree No. 109/2007/ND-CP on the transformation of state enterprises into joint-stock companies
7/18/2011	Decree No. 59/2011/ND-CP on the transformation of enterprises with 100% state capital into joint-stock companies
11/20/2013	Decree No. 189/2013/ND-CP amending Decree No. 59/2011/ND-CP on the transformation of wholly state-owned enterprises into joint-stock companies
11/26/2014	Law on Enterprises (2014)
11/26/2014	Law No. 69/2014/QH13 on Management and Use of State Capital Invested in Production and Business at Enterprises
10/13/2015	Decree No. 91/2015/ND-CP on State Capital Investment in Enterprises and Management and Use of Capital and Assets in Enterprises

Date	Policy Document
11/11/2015	Decree No. 116/2015/ND-CP amending a number of articles of Decree No. 59/2011/ND-CP on the transformation of wholly state-owned enterprises into joint-stock companies
12/28/2016	Decision No. 58/2016/QD-TTg on Criteria for Classification of State-Owned Enterprises
3/8/2018	Decree No. 32/2018/ND-CP Amending and Supplementing a Number of Articles of Decree No. 91/2015/ND-CP

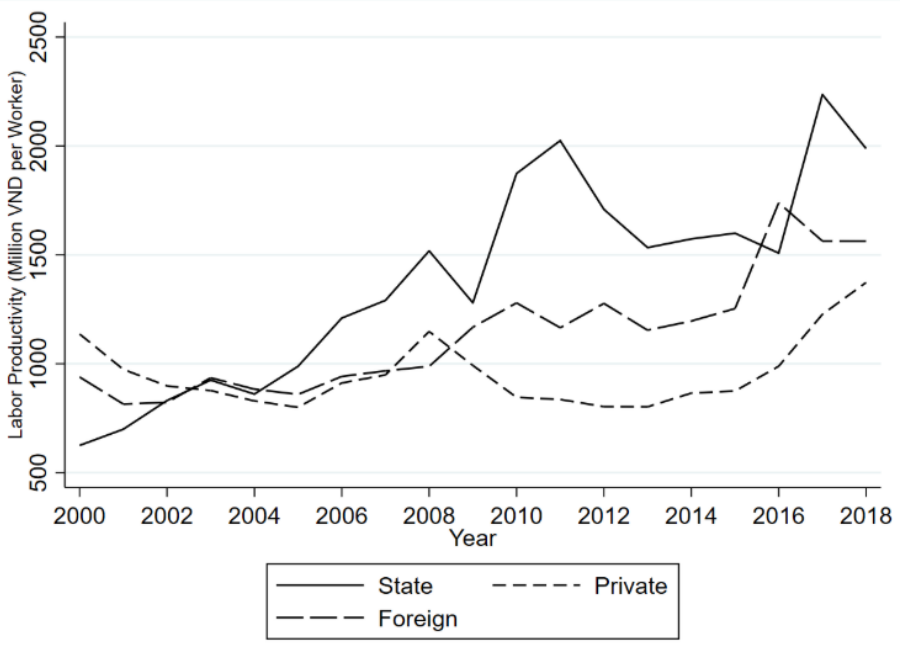
Appendix Figures

Figure 3.1: Inflation, consumer prices - Vietnam (annual %), period 1996-2018



Source: World Bank's Database.

Figure 3.2: Labor productivity across Vietnamese sectors, 2000-2018



Source: Author's calculations based on GSO's Enterprise Surveys (2000-2018)

Chapter 4

The impact of privatization on firm performance in Vietnam: A Staggered Difference-in-Differences analysis with heterogeneous treatment effects

4.1 Introduction

Empirical research assessing the impact of privatization on firm performance in Vietnam has been growing rapidly since the mid-2000s, starting with the study conducted by (D. L. Truong et al., 2006). A common feature in this work and in other previous studies that have followed (see, for example, T. Nguyen, 2021; Phuc, 2014; D. L. Truong and Tran, 2016; Van Tan and Trung, 2019; T. Q. Vo, 2012) is that they typically deal with "equitization". Officially, equitization refers to the conversion of state enterprises into joint-stock companies. [1] Equitization, as commonly observed, often results in the state retaining a ma-

[1] See, for example, Decision 28/1996, "On The Transformation Of A Number Of State Enterprises Into JointStock Companies".

jority stake in the equitized firm,[2] thereby maintaining a controlling position (Beeson & Pham, 2012). Privatization, on the other hand, is defined as the transfer of a controlling stake in public enterprises to private investors, so that the new owners can effectively control the firm (Jomo, 2008, p. 201). Thus, it is important to recognize that equitization and privatization are not interchangeable terms.[3] As a result, privatization may lead to different outcomes compared to equitization.[4]

In this Chapter, I analyze the privatization process in Vietnam by considering the extent of "state control". Specifically, I distinguish between firms with more than 50% state ownership and those with less than 50% ownership, acknowledging that firms operating under different types of capital control exhibit significant variations in policy treatment, business objectives, and management modes, all of which can have an impact on their performance (Pan et al., 2022).[5]

Applying a staggered difference-in-differences methodology, I examine the causal impact of privatization on firm performance using a panel sample consisting of 770 privatized SOEs and 2,154 non-privatized SOEs in Vietnam from 2006 to 2010. This methodology controls for several biases that may arise when using only time series data (due to common trends in the variables), or when using only cross-sections of firms (due to the possible selection of firms into privatization).[6] Most importantly, since Vietnam has a gradual process of privatization (firms were privatized in different years throughout the period),[7] the utilization of a staggered DiD approach is deemed methodologically relevant,

[2]Equitization is therefore equivalent to "corporatization" in China (see, e.g., Aivazian et al., 2005).

[3]As stated by To (2006), "Equitization in Vietnam is not a comprehensive retreat of SOEs or privatization, as some may think". In fact, "equitization", "state capital divestment", and "privatization" are often confused in the Vietnamese context due to their ideological significance to Vietnamese officials. As a result, the official discourse has avoided using the word "privatization" altogether, preferring to describe all these terms as "equitization" (Beeson & Pham, 2012).

[4]It's worth noting that some studies have explored the broader impact of ownership changes, including cases where the state's ownership stake went from 100% to below 50% (as in N. M. Tran et al., 2015. However, this definition still deals with equitization, as it does not account for scenarios where the government retains more than 50% but less than 100% share prior to equitization.

[5]To put my "privatization" results into perspective, I also conducted a similar analysis using "equitization" as the treatment indicator. The results are presented in the Appendix Table 4.3. As evident in the Table, the magnitudes of the effects are very different; hence, privatization and equitization generated distinct effects on firm performance.

[6]Certainly, this framework is not just specific to the privatization's context. One may also apply it to find out the impact of other quasi-exogenous shocks on corporate performance. For example, the impact of an IPO and M&A events on firm performance.

[7]See, for example, N. J. Freeman (1996a); D. L. Truong and Tran (2016); H. H. Le (2017).

which allows for the examination of how the privatization process unfolds over time and its dynamic impacts across different characteristics of the firms.[8] By examining these dimensions more closely, this Chapter aims to shed light on the complexities and nuances of the privatization-performance relationship, ultimately contributing to the extant body of knowledge on this subject.

To anticipate my results, I find that the privatization of Vietnamese firms led to significant increases in measures of profitability and sales per worker, coupled with a reduction in leverage and employment. Specifically, privatization led to an increase of 5% in sales per worker, a 23- 27% increase in profitability measures (ROA and ROS), an 8% decrease in debt ratio, and a 5% decline in employment. These findings are consistent with many prior studies (see, for example, Megginson et al., 1994; La Porta and López-de-Silanes, 1999; D. L. Truong et al., 2006; D. L. Truong et al., 2007; N. M. Tran et al., 2015; D. L. Truong and Tran, 2016). They are also in line with studies that focus on transition economies, such as China (Wei et al., 2003; Q. Sun and Tong, 2003; Y. Chen et al., 2021), former Soviet countries (Earle and Estrin, 1998; D. Brown et al., 2016; D. Brown et al., 2009) and the Eastern European transition economies (Pohl et al., 1997; Frydman et al., 1999; Earle and Telegdy, 2002; Grygorenko and Lutz, 2004).

In addition, my findings show that there is considerable heterogeneity across firm size and industries. In particular, I find that the effect of privatization was slightly weaker for large firms than for small firms and that it generally took a longer time for a change to be realized in largefirms. Moreover, privatization did not have a significant effect on firms operating in strategic industries. This is possibly due to the fact that, since large SOEs and strategic SOEs are perceived as more important to the economy, the government might regulate them more closely and prevent extensive restructuring following privatization.[9]

Finally, I find that performance improvement was absent among services SOEs, which is perhaps the most intriguing result in this study. Two possible mechanisms could be at play here. First, for SOEs that provide essential ser-

[8]See, for example, Djankov and Murrell (2002); Boubakri et al. (2004); D'Souza et al. (2005); D. Brown et al. (2016); Gakhar and Phukon (2018); Radić et al. (2021).

[9]These heterogeneity results are very much in line with previous studies (see, for example, Boardman and Laurin, 1998; Bortolotti and Faccio, 2004; Boubakri et al., 2004; Boycko et al., 1996; Cavaliere and Scabrosetti, 2008; Cuervo and Villalonga, 2000; Djankov and Murrell, 2002; Kikeri, 2022; La Porta and López-de-Silanes, 1999)

vices, adequate regulation is required to prevent adverse impacts on consumers (Alonso & Andrews, 2016; Hart et al., 1997; Kikeri, 2022). As a result, like large SOEs and strategic SOEs, SOEs providing essential services may find it hard to restructure while state regulations are still very much in place. Second, for SOEs that provide non-essential services (industries where the private sector clearly demonstrates a comparative advantage), due to the low level of fixed cost investment (Harper, 2002), low asset specificity (Boon et al., 2019), and a large number of competitors in the market (T. Brown & Potoski, 2003), contracting out to a private entity can be much more cost-effective than in-house production (Sappington & Stiglitz, 1987). Certainly, this makes outsourcing and third-party arrangements more likely among SOEs that provide non-essential services, enabling them to operate more efficiently and reducing the need for restructuring.

The study is organized as follows. The next section, Section 4.2, describes the data, the construction of the sample, and the main variables of interest. Section 4.3 describes in detail my empirical strategy. Section 4.4 presents my empirical results. Section 4.5 summarizes the major findings and concludes the Chapter.

4.2 Data and variables

4.2.1 Data

My analysis is based on an annual panel dataset extracted from a series of Enterprise Surveys conducted by the General Statistics Office of Vietnam. The survey takes a census of all firms with over 10 employees and covers all 64 provinces in Vietnam and has been used to calculate Vietnam's Gross Domestic Production (O'Toole et al., 2015). By choosing this dataset, I can therefore generalize my empirical findings to the overall privatization program in Vietnam. Since this is the most comprehensive firm survey in Vietnam, other studies also used this dataset to perform research assessing the impact of privatization on firm performance (e.g., N. M. Tran et al., 2015; D. L. Truong and Tran, 2016).

The study's focus is on the period between 2006-2010. This period was

chosen because it includes a diverse mix of privatized large and small firms.[10] In fact, the privatization process in Vietnam was extended to include large SOEs (economic groups and corporations) only after the issuance of Decree No. 109/2007/ND-CP of June 26, 2007. Therefore, firms privatized before 2007 contain mostly small SOEs. On the other hand, several studies found that privatization after 2010 involved mainly large SOEs with complex structures and operating in multiple industries, and privatization of these firms led to no effect on firm performance (T. Nguyen, 2021; Van Tan & Trung, 2019). By studying the period from 2006 to 2010, which includes a diverse mix of large and small privatized firms, my analysis can benefit from more heterogeneous study populations.[11]

4.2.2 Treatment variable

Since my empirical strategy involves diff-in-diff estimation, it is crucial to begin by establishing the treatment variable. As my focus lies on the extent of "state control", I define privatization as a transaction where the government ownership stake drops below the 50% threshold, a point at which the government loses significant control over a firm.[12]

[10]Moreover, when I tried to run the staggered DID on a short panel (2006-2010), the parallel pre-trends are all satisfactory, and the pre-trend tests yield good results. However, when I try to run the staggered DID on a long panel (nearly 2 decades, from 2000 to 2018), the parallel trends no longer hold, and the pre-trend tests fail in all cases. My hypothesis is that because the pre-trend period is too long, many factors could affect the outcome even before privatization actually occurs. Moreover, privatization in Vietnam often took place in several stages. Before real privatization occurs (the sale that reduces state ownership below 50%), several equity sales may have already happened, potentially affecting firm performance and, hence, the pre-trends (see Appendix Figure 4.22). For that reason, I stick to the 5-year period.

[11]During the first half of this period (2006-2007), Vietnam experienced an average GDP growth rate of 8.35%, which is relatively high. However, the second half of this period (2008-2010) saw a drop in the GDP growth rate to an average of 6.1%, indicating a slowing of the economy. As economic conditions prevailing at the time of privatization can account for the substantial variations observed in reported estimates (D. Brown et al., 2016; Gakhar & Phukon, 2018), the fluctuations during this period may be useful in understanding the heterogeneity of privatization effectiveness. As macroeconomic conditions changed, the impact of privatization on firms may have varied. During the high-growth period, the benefits of privatization may have been more apparent, while during the low-growth period, the effects may have been more difficult to materialize (D'Souza et al., 2005).

[12]It is important to note here that even when state ownership in a firm drops below the 50% threshold, the government may still control the firm if other stakeholders do not hold a sufficient voting share or if specific regulations allow the state to maintain influence over key decisions. However, these firms account for only 5.54% of my sample size. Moreover, the Law on Enterprise (2005, 2009) states that a SOE is a business in which the State owns more than 50% of the charter capital. This means that a privatization transaction entails the transformation of an SOE into a non-SOE, and my definition aligns with legal provisions at that time. Therefore, I do not include firms with a controlling state stake when the state owns

Firms in GSO's survey can be categorized into 3 groups: (1) SOEs - including all firms defined by the GSO as "central SOEs, local SOEs, central single-member limited liability companies, local single-member limited liability companies, joint stock company, limited liability company of which over 50% of charter capital is held by the state"; (2) Non-SOEs - including firms defined by the GSO as "private business, partnership company, private limited company with state capital being smaller than 50%, joint stock company without state capital, and joint stock company with state capital being smaller than 50%"; (3) Foreign firms - defined by the GSO as "wholly foreign-owned company and joint-venture (SOE and foreign partners; nonstate enterprise and foreign partners)". Firms that change their legal type from (1) to (2) are considered privatized firms,[13] while firms that maintain their legal type as (1) are used as control units.

It is essential to note that other researchers have made different choices in defining treatment dummies. For example, D. L. Truong and Tran (2016) define privatized firms as firms that shift their legal form from SOEs with 100% state ownership to firms with less than 100% ownership. As mentioned above, in this study, I define the treatment dummy as the switch from SOEs with more than 50% state capital to firms with less than 50% state capital. This definition focuses on a specific case of privatization, which is the case when the state relinquishes the majority of its control rights. [14]

4.2.3 Sample construction

After choosing an appropriate study population, I limited the panel sample to firms that are observed for all 5 years between 2006 and 2010. The excluded firms are those observed less than 5 times, possibly due to firm entry and exit

less than 50%.

[13]Note that I exclude cooperatives and foreign firms because privatization in Vietnam mostly took the form of domestic privatization (see, for example, Y. Chen et al., 2021)

[14]Since greater performance improvements will result from privatizations in which private owners control a larger portion of the firm (Boycko et al., 1996; D'Souza et al., 2005; Eckel et al., 1997; Megginson et al., 1994), one can expect to find higher estimates for privatization than those found by studies using equitization as treatment variable. To see the difference between privatization and equitization, I conducted another study where I define the treatment variable as equitization. The results in the Appendix Table 4.3 show that privatization leads to different outcomes compared to equitization. Profitability of privatized firms was higher than that of equitized firms, but productivity was lower. Moreover, equitization didn't change the use of leverage; only privatization reduced debt ratio significantly.

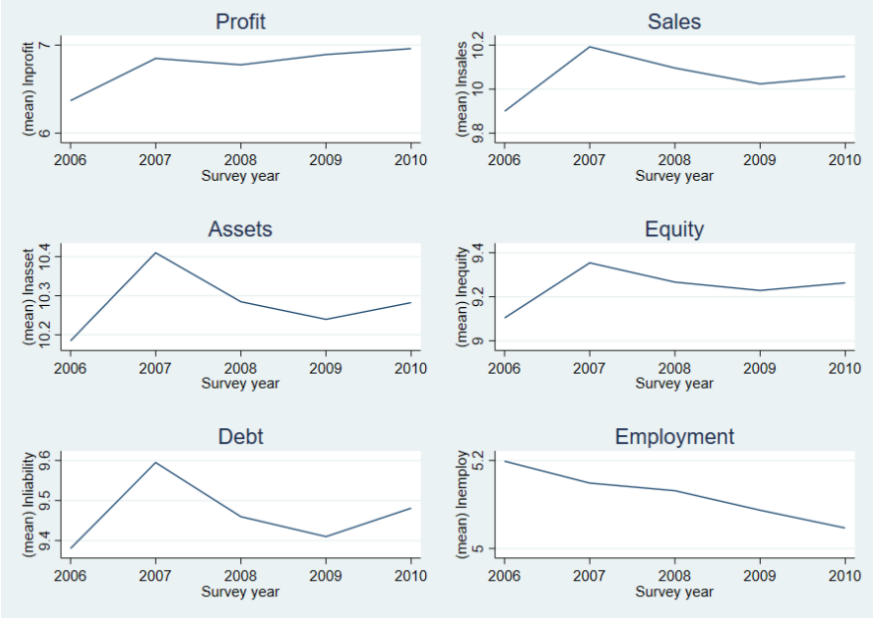
during the study period and thus lacking sufficient data for analysis.[15] To improve the comparability of the treatment and control groups, I kept only firms that reported switching from SOE to non-SOE (privatized firms) and SOEs that did not go through any privatization in the same period (full-period SOEs). The final sample contains 14,620 firm-year observations corresponding to 2,924 firms. A total of 770 privatized SOEs are included in the treatment group, while the control group involves 2,154 full-period SOEs.[16] The DiD analysis does not deal with the year 2006, since there's no pretreatment period in this year (the first year in the panel), but data for the year 2006 can be used to plot important information for descriptive statistics.

Figure 4.1 shows the trends of firms in the estimation sample over the period 2006-2010. It is possible to see that the global financial crisis also had an impact on Vietnamese firms, as net sales, total assets, and equity all decreased in 2008. However, profit before tax decline was rather short as it bounced back immediately after 2008. In terms of employment, SOEs in the estimation sample experienced a consistent fall during this period.

[15]To make sure the results are robust to the unbalanced panel that considers firm entry and exit during the study period, I also repeat the analysis on unbalanced data. The result is presented in the Robustness Tests Section.

[16]Of the 770 privatized SOEs, 304 were privatized in 2007, 190 firms were privatized in 2008, 140 firms were privatized in 2009, and 136 firms were privatized in 2010 (Appendix Table 4.1).

Figure 4.1: Trends in main variables



* Note: All variables with monetary values were adjusted for inflation using 2006 as base year. All values were log transformed.

4.2.4 Outcome variables and descriptive statistics

Djankov and Murrell (2002) stress the importance of reporting empirical findings in a way that allows for ease of comparison with other studies. To ensure comparability with previous studies evaluating the effect of privatization in Vietnam, in this study, I examine the same performance measures used in D. L. Truong et al. (2006), N. M. Tran et al. (2015), D. L. Truong and Tran (2016). In particular, I analyze four commonly used performance measures: profitability, sales per employee, leverage, and employment.

Table 4.1 shows how these variables are calculated and the expected change based on previous studies assessing the impact of privatization on firm performance in Vietnam during the same period. Total sales per employee, measured as total sales before tax to total employment ratio, is a proxy for efficiency (Megginson et al., 1994). To evaluate firm profitability, return on assets (ROA), return on equity (ROE), and return on sales (ROS) are used. I use profit before tax to measure profitability ratios in order to eliminate the effect of heteroge-

neous tax rates across firms (see, e.g., D. L. Truong et al., 2006).[17] To examine leverage, I use debt ratio, measured as total liabilities divided by total assets. Employment is simply the total number of workers. All measures are log transformed.[18]

Table 4.1: Performance indicators and their expected change

Indicator	**Calculation method**	**Expected change**
Sales per worker	Total sales/total employment (log)	Increasing
ROA	Profit before tax/total assets (log)	Increasing
ROE	Profit before tax/equity (log)	Increasing
ROS	Profit before tax/sales (log)	Increasing
Leverage	Total debt/total assets (log)	Decreasing
Employment	Number of employees (log)	Decreasing

Notes: Hypothetical changes are based on findings from a number of previous studies (see, for example, N. M. Tran et al., 2015; D. L. Truong and Tran, 2016; D. L. Truong et al., 2007).

Table 4.2 shows the correlation matrix among the dependent variables used in this study. There is a strong positive linear relationship between ROA, ROE, and ROS. Specifically, ROA is correlated to ROE and ROS, with a Pearson correlation coefficient of 0.871 and 0.749, respectively. Also, a positive linear relationship exists between total sales per worker and profitability (ROA and ROE). The Pearson correlation coefficients for them are 0.269 and 0.348, respectively. These values indicate that there is a moderate positive relationship between variables measuring sales per worker and profitability, which is understandable since these indicators are alternative measures of efficiency. Moreover, there is also a positive linear relationship between debt ratio and employment, which indicates that, as the size of a company increases, it becomes more capable

[17]However, using this indicator may pose a threat to my results. Given privatization sales generate a certain amount of cash for the SOEs, this amount of cash should fall under the Other Profits category. This means that using pre-tax profits may lead to overestimating the effects of privatization. To overcome this shortcoming, I use profits from main business (operating profits) as a proxy to recalculate ROA, ROE, and ROS. The results are shown in Appendix Figure 4.21. As expected, the effects are not as strong, but still, they are identical to the baseline specification using pre-tax profits. A similar robust test was conducted by N. M. Tran et al. (2015), and they also find the results not so strikingly different.

[18]All variables with monetary values were adjusted for inflation using 2006 as base year before log transformed (see Malesky et al., 2015).

of utilizing greater leverage.

Table 4.2: Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)
Sales per worker (1)	1					
ROA (2)	0.269	1				
ROE (3)	0.348	0.871	1			
ROS (4)	-0.098	0.749	0.599	1		
Leverage (5)	0.234	0.00935	0.366	-0.194	1	
Employment (6)	-0.070	0.0516	0.163	0.00891	0.237	1

Table 4.3 shows the means of these outcome variables based on treatment status. Compared to firms in the control groups, firms selected for privatization have the same level of sales per worker, a lower level of profitability (in terms of ROA and ROS) but higher leverage, on average. Certainly, the evidence might somehow explain why they were selected for privatization in the first place. After privatization, the efficiency of the newly privatized firms is higher, while their employment level is lower than before. Compared to the control group (full-period SOEs), post-privatized firms have higher sales per worker, higher profitability, and much lower employment.

Table 4.3: Sample means of outcome variables

			Treated firms	
Indicator	**Full sample**	**Controls**	**Before**	**After**
Total sales per employee (log)	4.949	4.923	4.922	5.098
ROA (log)	1.029	1.002	0.894	1.254
ROE (log)	2.114	2.027	2.192	2.487
ROS (log)	1.125	1.168	0.795	1.142
Leverage (log)	-0.833	-0.907	-0.623	-0.624
Employment (log)	5.122	5.214	4.903	4.836

Notes: Treated firms refer to firms privatized in 2007, 2008, 2009, and 2010. Controls refer to full-period SOEs (SOEs that did not go through privatization during the same period).

Table 4.4 presents the descriptive statistics of firms in different subsamples. In terms of size, large SOEs are not just bigger in terms of employment, asset, and owner's equity, they generate significantly more output and are more profitable. Subsample differences are even more striking in terms of sector. Even though the average size of service firms in terms of assets, equity, debt, and employment is smaller than that of non-service firms, they outperform in almost every aspect of performance, which indicates that service SOEs operate at much more efficient levels than non-service SOEs.

Table 4.4: Summary Statistics by Subsamples

	Size		**Establishment period**		**Sector**	
	Small firms	**Large firms**	**Pre-1995 firms**	**Post-1995 firms**	**Non-service firms**	**Service firms**
Profits	6.15	8.00	6.94	6.51	6.70	6.88
	(2.19)	(2.06)	(2.36)	(2.23)	(2.28)	(2.37)
Sales	9.42	11.40	10.26	9.74	10.00	10.13
	(1.78)	(1.55)	(1.95)	(1.89)	(1.82)	(2.11)
Assets	9.70	11.51	10.49	9.97	10.42	10.07
	(1.52)	(1.36)	(1.66)	(1.70)	(1.58)	(1.83)
Equity	8.76	10.27	9.42	8.98	9.31	9.14
	(1.56)	(1.49)	(1.69)	(1.65)	(1.61)	(1.80)
Debt	8.7	10.91	9.70	9.11	9.63	9.21
	(1.89)	(1.58)	(1.99)	(2.08)	(1.97)	(2.15)
Sales per worker	1.65	1.41	1.52	1.65	1.18	2.17
	(2.03)	(1.86)	(1.98)	(1.97)	(1.86)	(2.01)
ROA	1.00	1.09	0.99	1.10	0.85	1.31
	(1.71)	(1.60)	(1.70)	(1.62)	(1.70)	(1.58)
ROE	1.98	2.38	2.11	2.12	2.01	2.27
	(1.70)	(1.55)	(1.69)	(1.61)	(1.73)	(1.54)
ROS	1.12	1.13	1.09	1.18	1.12	1.13
	(1.63)	(1.45)	(1.57)	(1.57)	(1.46)	(1.73)
Leverage	-0.94	-0.61	-0.80	-0.89	-0.81	-0.87
	(1.04)	(0.69)	(0.94)	(0.97)	(0.99)	(0.89)
Employment	4.43	6.61	5.34	4.79	5.45	4.62
	(0.86)	(0.75)	(1.31)	(1.23)	(1.29)	(1.17)
N	9921	4695	8818	5798	8859	5757

Notes: Standard deviations in parentheses.

4.3 Empirical strategy

In this Chapter, I use a staggered DiD approach to identify the causal impact of privatization on firm performance. By comparing the outcomes of treated and control groups, the DiD method controls for time-invariant unobservable factors that may influence the selection into privatization. Moreover, since

the DiD method also compares the differences before and after privatization, it also controls for time-varying confounding factors that independently affect firm performance.[19] The key assumption here is that, in the absence of the treatment, the trend in outcomes for the treatment group would have followed a parallel path to that of the control group. Under this parallel trend assumption, these two comparisons identify the causal effects of privatization on firm performance.

In the last few years, several significant contributions in the econometric literature have noted that traditional OLS regression approaches to DiD may generate misleading estimates of the causal effects of the treatment when there is variation in treatment timing (see, for example, Borusyak et al., 2021; De Chaisemartin and d'Haultfoeuille, 2020; Goodman-Bacon, 2021). For instance, Goodman-Bacon (2021) points out that OLS DiD produces estimates that are a weighted average of all possible 2x2 comparisons between treatment and control groups, and comparing treated units with units that were treated in the past is particularly problematic. Moreover, when treatment effects are heterogeneous, OLS specification puts more weight on units with more variance in treatment status in order to achieve a more precise estimate of the treatment effect. Since the effects of privatization are likely to be heterogeneous over time (Estrin et al., 2009; D. Brown et al., 2016), the causal parameter of interest in the standard TWFE OLS DiD estimation simply using place and time fixed effects to isolate the effect of policy changes is not guaranteed to be interpretable.[20]

Given Vietnam's gradual process of privatization (firms became privatized in different years throughout the period), the utilization of a staggered DiD approach is deemed more methodologically relevant than a traditional DiD setup. Specifically, staggered DiD allows for the examination of how the privatization process unfolds over time and its impacts on state control dynamics. For instance, the effect of privatization might increase or decrease over time, or firms privatized earlier might perform better than firms privatized later due to the selective nature of government's privatization (the government tends to privatize easy targets or less important firms first). In these cases, staggered DiD can be a suitable framework to evaluate the effectiveness of privatization. However,

[19]The timing of privatization may coincide with changes in the broader economic environment, such as economic recessions, industry shocks, or changes in policies and regulations.

[20]In sub-section 4.4.2.1, I show the problems when using TWFE-DiD.

previous studies often use two-way fixed effects (TWFE) regression to provide DiD estimates (see, for example, N. M. Tran et al., 2015, D. L. Truong and Tran, 2016, T. Nguyen, 2021).

To address the potential problems associated with TWFE OLS DiD, I used the staggered DiD estimation methodology described in Callaway and Sant'Anna (2021), henceforth referred to as CS-DiD. This method addresses the limitations of the TWFE OLS DiD by ensuring that only appropriate 2×2 comparisons between treated units and control units are being made, while also adjusting for differential group sizes and varying treatment effects.[21] To identify the socalled "group-time" average treatment effect on the treated (ATT), the CS-DiD estimator is outlined as:

$$ATT(g,t) = E[Y_t(g) - Y_t(0)|G_g = 1] \qquad (1)$$

Where $ATT(g,t)$ is the effect of a treatment on a particular group g(a group of units treated at the same point in time) at a particular time period t. To highlight treatment effect heterogeneity, the authors provide a mechanism to aggregate $ATTs$ into fewer interpretable parameters. Weights on each $ATT(g,t)$ vary depending on the aggregation scheme chosen (by group, by calendar period, by event, or total).[22] These weights are always positive and sum to one, with larger weights for larger group sizes. The comparison group can include never-treated and not-yet-treated firms.[23]

One problem of previous studies in privatization-performance using DiD design is the lack of examination of the parallel trends assumption (see Appendix Table 4.2 for a list of literature that uses DiD design but does not adequately discuss the parallel trends assumption).[24] CS-DiD method avoids this prob-

[21] Rios-Avila (2021) for detailed documentation of csdid command in Stata.

[22] For example, if one believes that the economic conditions prevailing at the time of privatization may cause substantial variations in privatization effectiveness (see, for example, J. Kim and Chung, 2007; D. Brown et al., 2016; Gakhar and Phukon, 2018) , aggregation by groups may be appropriate to highlight this type of heterogeneity.

[23] This requires the estimation of a propensity score in the first stage and a weighted least-squares regression in the second stage.

[24] As the identifying assumption underlying DiD design is that the performance of privatized firms and control firms would have evolved similarly in the absence of privatization, it implicitly assumes the absence of any time-variant observables that would alter the trajectory of either the treatment or comparison group. In other words, one can only identify the causal effect of privatization if there is evidence that both groups observed similar parallel paths pre-treatment.

lem by providing a formal test to check if there are any statistically significant differences in pre-privatization trends. Moreover, the CS-DiD method allows for the possibility that pre-trends exist only after conditioning on observable pre-treatment covariates.[25] Hence, one can present estimates that control for a vector of covariates that may simultaneously relate to both privatization and firm performance.

Another problem of previous studies is the use of event study specifications estimated via TWFE OLS DiD to assess the dynamic effects of privatization (see, for example, Shi and Sun, 2016; T. Nguyen, 2021). The event study estimates have been of particular interest here because they allow these studies some verification of the parallel trends assumption as well as allowing the effect of privatization to change over time. Coefficients are then interpreted as dynamic treatment effects, and estimated lead coefficients are often utilized as an informal test of the standard pre-treatment trends assumption. However, L. Sun and Abraham (2021) have recently demonstrated that in scenarios where there is variation in treatment timing, the coefficient on a given lead or lag estimated via TWFE may be "contaminated" by effects from other periods, resulting in biased estimates.[26] To avoid the pitfalls associated with the TWFE-DiD event study design, I use the event study approach presented in Callaway and Sant'Anna (2021) to examine how the effects of privatization vary with time relative to treatment. In particular, I aggregatethe effects using event-based weights within different event windows.[27] The idea is in the vein of dynamic TWFE specification, but with the benefits of avoiding the weighting problems associated with such a model.[28]

Along with time heterogeneity and event study, I conduct additional heterogeneity analyses to explore potential variation across observable firm-level characteristics. Studies have shown that firm-specific traits like firm size or

[25]These covariates are measured during the reference period of the relevant 2x2 difference-in-differences estimate.

[26]For example, a TWFE event study design may fail to accurately weigh this group-time variation and overestimate effects among units that were treated longer (Goodman-Bacon, 2021).

[27]The censored event ATT is the ATT across all group-time $ATTs$ that correspond to periods between T#1 and T#2. Time is indexed relative to the year when privatization occurred (t=0).

[28]I also conducted a robustness test using the TWFE estimator and found qualitatively similar results (Appendix Figure 4.2).

industry can contribute to heterogeneity in the privatization's effectiveness, as different firm types possess distinct internal processes, resources, or capabilities that interact with the treatment in unique ways, resulting in divergent outcomes (D. Brown et al., 2016; Gakhar and Phukon, 2018).

In light of this, I test for privatization effects related to firm size (small firms versus large firms), establishment period (SOEs established in or before 1995 versus SOEs established after 1995), and sector (service firms versus non-service firms). First, based on Decree No. 90/2001/ND-CP, I define firms with less than three hundred employees as small firms, and SOEs with at least 300 employees as large firms. Second, I define SOEs established after 1995 as strategic firms, since new establishments of SOEs are only allowed in "key and important sectors or areas" (Law on State Enterprise 1995, Article 13).[29] Finally, I define service firms and non-service firms based on the list of Vietnam Standard Industrial Classification (VSIC, 2007).[30] I estimate results separately for these subsamples and report them in the main results.

4.4 Empirical Results

In the sections below, I present the main empirical results for each performance indicator. Tables 4.5 through 4.10 present the results for total sales per worker, profitability (ROA, ROE, and ROS), leverage (total debt to total assets), and employment (number of employees). To ensure the reliability of my DiD design, I first assessed the plausibility of parallel trends for each outcome in my analysis. The results are presented in the lower part of these tables. According to the Chi-square test, none of the point estimates during the pre-treatment period were found to be statistically significant, which alleviates concerns that changes in firm performance after privatization were caused

[29]Moreover, while pre-1995 period involves more liberalization towards SOEs, the later period reflects some consolidation of economic power towards the central with the emergence of economic groups and parent companies, i.e., General Companies and General Corporations under the scope of Decree 90 (1994) and Decree 91 (1994).

[30]The document was issued together with the Prime Minister's Decision 10/2007/QD-TTg on January 23, 2007. Non-service firms include SOEs from the first to the sixth section (agriculture, mining, and manufacturing industries, electricity, water supply, and construction industries), and the service firms include from the seventh industry to the end (wholesale and retail trade; transportation and storage; accommodation and food service activities; information and communication; financial, banking and insurance activities; real estates; professional, scientific and technical activities; administrative and support service activities).

by an underlying trend among the privatized firms and the full-period SOEs before privatization. Conditioning the parallel trends on a vector of covariates (i.e., size, establishment period, sector, and region) leads to a greater magnitude of reported estimates but is still statistically equivalent to the baseline specification.[31] Table 4.11 presents the total ATT for various subsamples based on firm size, establishment period, and sector; Figures 4.2 through 4.7 plot ATT aggregations across dynamic effects (event plot) for these subsamples.

4.4.1 Main results

4.4.1.1 Sales per worker

Since almost everyone would expect a firm to produce more output for a given level of input following privatization, efficiency is considered the least controversial among all performance indicators (Megginson et al., 1994). Indeed, numerous studies have found a positive impact of privatization on labor productivity, with increased output reported in privatized firms in developed countries (e.g., D'Souza et al., 2005), Central and Eastern Europe (e.g., Pohl et al., 1997), former CIS countries (e.g., Earle and Estrin, 1998), China (e.g., Shi and Sun, 2016), and Vietnam (e.g., D. L. Truong et al., 2006).[32] In light of the above, I expect improvements following privatization in terms of sales per worker.

Table 4.5 reports the estimated effects of privatization on total sales per worker for the full sample of firms. The simple weighted average provides an estimated causal impact of privatization on sales per worker that is 4.9%, which is statistically significant at the 90% confidence interval. However, there were varying effects across the timing of privatization. The effect was only statistically significant for firms privatized in 2007 (7.7%, $p < 0.01$). For firms privatized in 2008, 2009, and 2010, the ATT was not statistically significant. The evidence thus suggests a modest increase in sales per worker, but only for firms

[31] The magnitude of the effects become stronger after including time-invariant firm-level covariates, yet the estimates are very similar whether I include covariates or not.

[32] Another channel through which privatized firms could rapidly improve their sales per worker without any real improvement in output is by laying off redundant workers. Appendix Figure 4.1 shows a non-significant increase in output (total sales) and a sizable reduction in employment among the privatized firms compared to the unswitched SOEs. Therefore, I suspect that sales per worker would somehow improve following privatization.

privatized in 2007.

Table 4.11 panel (a) reports the estimated effect of privatization on sales per worker across different subsamples. The effect is positive and statistically significant in 3 out of 6 subsamples. The three exceptions are: large firms, firms established after 1995, and services firms. Figure 4.2 further confirms these findings and provides more insights into the effect heterogeneity. Figure 4.2 panel (a) shows that improvements in sales per worker for large firms took a longer time to materialize following privatization. However, it can be seen from Figure 4.2 panel (b) and (c) that post-1995 firms and service firms did not experience any increase in sales per worker. Overall, these results suggest that large firms, strategic firms, and service firms were less likely to experience post-privatization improvements in sales per worker.

The intuition behind these results is as follows. Large SOEs may find it more difficult to restructure due to their perceived importance to the state (Villalonga, 2000; Aussenegg and Jelic, 2002; D'Souza et al., 2005; D. L. Truong et al., 2006; D. Brown et al., 2016). For the same reason, privatization of firms operating in strategic industries can be particularly problematic (see, for example, D'Souza and Megginson, 1999; Kikeri and Nellis, 2004). In the meantime, the complexities of measuring and ensuring quality in the provision of essential services might hinder the extent to which privatization can bring about significant improvements through restructuring (Hart et al., 1997; Alonso and Andrews, 2016; Kikeri, 2022), while fierce competition in industries providing non-essential services could make outsourcing easier and raise efficiency even in the absence of a formal change in ownership (Sappington and Stiglitz, 1987; T. Brown and Potoski, 2003; Boon et al., 2019).

4.4.1.2 Profitability

Since the private sector is typically profit-oriented, I expect that profitability would increase after privatization. Investigating the same period, D. L. Truong and Tran (2016) find that ROA and ROS increased following privatization, but not ROE. Several international studies also found that ROA and ROS increased, except for ROE (Megginson et al., 1994; Boubakri et al., 2004).[33] To check if

[33]One possible explanation is that, since ROE is directly related to the new private owner's interest, it is one of the key indicators that can be suspected of being manipulated (Niu et al.,

these observations hold in my case, I examine all three measures of profitability in my analysis: profit before tax to total assets (ROA), profit before tax to total equity (ROE), and profit before tax to total sales (ROS).

Tables 4.6, 4.7, and 4.8 report the estimated effects of privatization on profitability for the full sample of firms. There were indeed post-privatization improvements in ROA (Table 4.6) and ROS (Table 4.8), but not in ROE (Table 4.7). Specifically, the simple weighted average in Table 4.6 panel (a) shows that ROA increased by 23.5%, while Table 4.8 panel (a) shows ROS increased by 26.9%, both are statistically significant at the 99% confidence interval. In contrast, Table 4.7 shows that none of the estimates reported for ROE are statistically significant. The effect of privatization on ROA and ROS seems to be positive and increasing in magnitude the longer firms remain privatized. Also, the estimated effect was highest for firms privatized in 2007, followed by firms privatized in 2008; however, it was marginally insignificant for firms privatized in 2009 and not statistically significant for firms privatized in 2010. These findings suggest a significant increase in the cases of ROA and ROS, but a less pronounced effect for firms privatized in the later years of the panel.

Table 4.11 panel (b) reports the estimated effect of privatization on profitability (ROA, ROE, and ROS) across the subsamples. For ROA, the effect is positive and statistically significant in 4 out of 6 subsamples, with two exceptions being firms established after 1995 and service firms. For ROS, the improvement is statistically significant for all subsamples, but the significance levels vary. In both ROA and ROS, the gains are more pronounced for the subsamples of small SOEs, SOEs established before 1995, and non-service SOEs (all estimates are significant at the 1% level), ranging from 24.7% to 39.1%. Dynamic analysis (see Figures 4.3, 4.4, and 4.5) further shows that profitability improvements for small firms were felt immediately and then faded away, while the effects for larger firms started weak but consolidated a few years after the implementation of privatization. Interestingly, while the change in ROE for the full sample is not statistically different from zero, the subsample analyses now show that ROE increased significantly for pre-1995 firms. Overall, the results suggest that service firms and firms established after 1995 did not appear to

2023).

experience post-privatization improvements in terms of ROA and ROS.

4.4.1.3 Leverage

As the major goal of privatization is to make SOEs financially sustainable and eliminate their need for ongoing government subsidies, most governments expect their leverage to decrease after privatization. In reality, the proceeds from privatization sales may be used to pay off existing debt, which can reduce leverage in the short term.[34] Many studies found a negative impact of privatization on leverage (see, for example, Megginson et al., 1994; Boubakri and Cosset, 1998; D'Souza and Megginson, 1999). In the context of Vietnam, D. L. Truong and Tran (2016) reached a similar conclusion.[35] Therefore, I expect a significant decline after privatization in terms of leverage.

Table 4.9 reports the estimated effects of privatization on leverage, measured as the total debtto-assets ratio. The total $ATTs$ from panel (a) show that privatization led to a reduction of 7.7% ($p < 0.01$) in leverage. $ATTs$ by event from panel (b) show a gradual decline in leverage, as the effect is negative and tends to intensify in the post-privatization years. Specifically, compared to the pre-privatization periods, the debt-to-assets ratio decreased by 2% in the first year, 4% in the second year, 5% in the third year, and 5.7% in the fourth year. Group-specific effects from Panel (c) indicate that firms privatized in the later years (2009 and 2010) experienced no significant change in the level of debt ratio. On the other hand, firms privatized in 2007 had a statistically significant decrease in the level of debt ratio following privatization (ATT = -9.5%, $p < 0.01$). For firms privatized in 2008, the estimated $ATTs$ were a bit smaller in magnitude than firms privatized in 2007, with less statistical significance (ATT = -8.8%, $p < 0.05$). In general, the results suggest that privatization tends to decrease the debt ratio; however, as with the cases of ROA and ROS, the effects for firms treated later are, again, not statistically significant.

Table 4.11 panel (c) reports the estimated effect of privatization on leverage

[34]Even in the cases where firms have no substantial debt, increased cash flows following privatization can also reduce the need for borrowing in the future

[35]However, N. M. Tran et al. (2015) found that privatization had no significant impact on leverage in Vietnamese firms, which could be attributed to the constrained availability of capital in the market, forcing privatized firms to continue relying on debt financing

across our subsamples. Similar to the full sample, decline in leverage is the norm for all subsamples, with coefficients ranging from 7.5% to 10.7%. I find that large firms experience the greatest decline in leverage (10.7%, $p < 0.01$). This is likely because larger firms had higher debt ratios due to their better access to capital markets and higher credit ratings before privatization (Kurshev & Strebulaev, 2015). Similar to the full sample, the event study plot (see Figure 4.6) generally shows a gradual decline in leverage, as the effect is negative and tends to intensify in the postprivatization years for all subsamples. Overall, the impact of privatization on leverage appears to be negative and persistent in all subsamples.

4.4.1.4 Employment

Prior to privatization, SOEs tend to overhire because they are expected to meet non-economic objectives (Boycko et al., 1996). Thus, private owners who are typically focused on reducing costs and curing economic inefficiencies will immediately look for ways to cut down excessive labor once they have control over the firm. International studies, however, have shown that this was not always the case (see, for example, Megginson et al., 1994; Boubakri and Cosset, 1998; Megginson and Netter, 2001). From Vietnam, empirical findings are also mixed in this regard. For instance, D. L. Truong et al. (2006) found no significant change in employment after privatization, while D. L. Truong and Tran (2016) observed a significant reduction.[36] Because I investigated the same period with D. L. Truong and Tran (2016), I expect a notable reduction in total employment.

The results, shown in Table 4.10, suggest a decrease in employment post-privatization for the full sample of firms. The total $ATTs$ show that privatization decreased total employment 5% ($p < 0.01$), on average. The negative effects on employment appear to be increasing in magnitude the longer firms stay privatized. Specifically, total employment decreased by 1.5% ($p < 0.1$) in the first year of privatization, 2.6% ($p < 0.05$) in the second year, 2.8% ($p < 0.05$) in the third year, and 3.5% ($p < 0.05$) in the fourth year. Interestingly, privatization caused the most substantial decline in total employment for

[36]Radić et al. (2021) suggests differences in time periods analyzed across studies may account for the mixed results. In fact, I suspect that the government might use different policy tools to prevent layoffs during different periods.

the group of firms privatized in 2007 (employment was 9.1% lower) but led to no significant change for firms privatized in 2008. For firms privatized in 2009 and 2010, the coefficients are statistically significant, as employment was 8.2% lower and 5.6% lower, respectively. These findings suggest that privatization led to a persistent reduction in employment, and the effects vary depending on the timing of privatization.[37]

As shown in Table 4.11 panel (d), splitting firms into subsamples yields substantial differences. Firms established after 1995 and service firms were, again, not affected by privatization. On the other hand, the effects for pre-1995 firms, non-service firms, and small firms are very pronounced and persistent over the years (see Figure 4.7). Overall, the strongest evidence here suggests that services firms and firms established after 1995 did not seem to be able to lay off workers following privatization.

[37]This might suggest that full-period SOEs also cut down on employment in the onset of the financial crisis.

Table 4.5: The impact of privatization on total sales per worker for the full sample of firms. Staggered DiD, Callaway and Sant'Anna (2021)

Dependent variable: Total sales per employee (log)				
	(1)	(2)	(3)	(4)
(a) Total *ATT*:	0.049*	0.051*	0.051*	0.054**
	(0.03)	(0.03)	(0.03)	(0.03)
(b) By event:				
[-3; 0]	-0.012	-0.011	-0.015	-0.013
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 1]	0.010	0.005	0.002	0.007
	(0.02)	(0.02)	(0.02)	(0.02)
[-3; 2]	0.016	0.017	0.015	0.018
	(0.02)	(0.02)	(0.02)	(0.02)
[-3; 3]	0.030	0.031	0.030	0.032**
	(0.02)	(0.02)	(0.02)	(0.02)
(c) By group:				
G2007	0.077*	0.080**	0.083**	0.087**
	(0.04)	(0.04)	(0.04)	(0.04)
G2008	0.044	0.040	0.039	0.038
	(0.04)	(0.04)	(0.04)	(0.04)
G2009	0.011	0.005	0.006	0.005
	(0.05)	(0.05)	(0.05)	(0.05)
G2010	-0.075	-0.076	-0.075	-0.076
	(0.06)	(0.06)	(0.06)	(0.06)
No. of obs.	14,460	14,460	14,460	14,460
Pre-trends (Chi-2)	2.5931	2.5931	2.4612	2.5039
(p-value)	0.8579	0.8579	0.8728	0.8680
Not-yet-treated		Yes		Yes
Covariates			Yes	Yes

Notes: This table presents empirical results for the full sample of firms. The dependent variable is the log of total sales per employee in a given firm and year. Panel (a) reports the simple *ATT* for all groups across all periods. Panel (b) reports the aggregated treatment effects by event, i.e., how the effect of privatization changes over time since privatization. Panel (c) reports aggregated treatment effects by group (i.e., each group of firms treated in the same year), over all periods. Table columns indicate models that toggle covariates and not-yet-treated units. Model (1), the baseline specification, has no covariate and uses never-treated units as controls. Model (2) has no covariate and uses not-yet-treated units as controls. Model (3) and (4) depart from the unconditional parallel trends assumption and show results conditional on several time-invariant covariates (size, industry, establishment period, region). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at the firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4.6: The impact of privatization on profitability (log of ROA). Staggered DiD, Callaway and Sant'Anna (2021)

Dependent variable: ROA (log)				
	(1)	(2)	(3)	(4)
(a) Total ATT:	0.235***	0.241***	0.241***	0.240***
	(0.06)	(0.06)	(0.06)	(0.06)
(b) By event:				
[-3; 0]	0.054	0.057	0.061*	0.061*
	(0.03)	(0.03)	(0.03)	(0.03)
[-3; 1]	0.103***	0.103***	0.104***	0.104***
	(0.03)	(0.03)	(0.03)	(0.03)
[-3; 2]	0.145***	0.150***	0.148***	0.148***
	(0.04)	(0.04)	(0.04)	(0.04)
[-3; 3]	0.153***	0.157***	0.165***	0.165***
	(0.06)	(0.06)	(0.06)	(0.06)
(c) By group:				
G2007	0.277***	0.285***	0.285***	0.284***
	(0.10)	(0.10)	(0.10)	(0.10)
G2008	0.249**	0.257**	0.257**	0.257**
	(0.11)	(0.11)	(0.11)	(0.11)
G2009	0.117	0.111	0.111	0.110
	(0.12)	(0.12)	(0.12)	(0.12)
G2010	0.060	0.049	0.050	0.050
	(0.14)	(0.14)	(0.14)	(0.14)
No. of obs.	12,246	12,244	12,244	12,244
Pre-trends (Chi-2)	3.6825	3.6834	3.7094	3.7099
(p-value)	0.7196	0.7194	0.7999	0.7821
Not-yet-treated		Yes		Yes
Covariates			Yes	Yes

Notes: This table presents empirical results for the full sample of firms. The dependent variable is the log of ROA in a given firm and year. Panel (a) reports the simple ATT for all groups across all periods. Panel (b) reports the aggregated treatment effects by event, i.e., how the effect of privatization changes over time since privatization. Panel (c) reports aggregated treatment effects by group (i.e., each group of firms treated in the same year), over all periods. Table columns indicate models that toggle covariates and not-yet-treated units. Model (1), the baseline specification, has no covariate and uses never-treated units as controls. Model (2) has no covariate and uses not-yet-treated units as controls. Model (3) and (4) depart from the unconditional parallel trends assumption and show results conditional on several time-invariant covariates (size, industry, establishment period, region). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at the firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4.7: The impact of privatization on profitability (log of ROE). Staggered DiD, Callaway and Sant'Anna (2021)

Dependent variable: ROE (log)				
	(1)	(2)	(3)	(4)
(a) Total *ATT*:	0.088	0.093	0.091	0.092
	(0.07)	(0.07)	(0.07)	(0.07)
(b) By event:				
[-3; 0]	0.022	0.023	0.022	0.022
	(0.03)	(0.03)	(0.03)	(0.03)
[-3; 1]	0.044	0.044	0.043	0.044
	(0.04)	(0.04)	(0.04)	(0.04)
[-3; 2]	0.046	0.046	0.045	0.045
	(0.04)	(0.04)	(0.04)	(0.04)
[-3; 3]	0.054	0.058	0.056	0.056
	(0.05)	(0.05)	(0.05)	(0.05)
(c) By group:				
G2007	0.089	0.095	0.099	0.099
	(0.11)	(0.11)	(0.11)	(0.11)
G2008	0.119	0.118	0.117	0.121
	(0.12)	(0.12)	(0.12)	(0.12)
G2009	0.083	0.082	0.081	0.081
	(0.12)	(0.12)	(0.12)	(0.12)
G2010	-0.148	-0.148	-0.145	-0.145
	(0.14)	(0.14)	(0.14)	(0.14)
No. of obs.	12,308	12,334	12,308	12,334
Pre-trends (Chi-2)	4.1321	4.1112	4.1112	4.1112
(p-value)	0.6588	0.6587	0.6662	0.6688
Not-yet-treated		Yes		Yes
Covariates			Yes	Yes

Notes: This table presents empirical results for the full sample of firms. The dependent variable is the log of ROE in a given firm and year. Panel (a) reports the simple *ATT* for all groups across all periods. Panel (b) reports the aggregated treatment effects by event, i.e., how the effect of privatization changes over time since privatization. Panel (c) reports aggregated treatment effects by group (i.e., each group of firms treated in the same year), over all periods. Table columns indicate a series of models that toggle covariates and not-yet-treated units. Model (1), the baseline specification, has no covariate and uses never-treated units as controls. Model (2) has no covariate and uses not-yet-treated units as controls. Model (3) and (4) depart from the unconditional parallel trends assumption and show results conditional on several time-invariant covariates (size, industry, establishment period, region). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4.8: The impact of privatization on profitability (log of ROS). Staggered DiD, Callaway and Sant'Anna (2021)

Dependent variable: ROS (log)				
	(1)	(2)	(3)	(4)
(a) Total ATT:	0.269***	0.271***	0.282***	0.276***
	(0.06)	(0.06)	(0.06)	(0.06)
(b) By event:				
[-3; 0]	0.085***	0.086***	0.100***	0.097***
	(0.03)	(0.03)	(0.03)	(0.03)
[-3; 1]	0.148***	0.150***	0.158***	0.155***
	(0.04)	(0.04)	(0.04)	(0.04)
[-3; 2]	0.182***	0.184***	0.194***	0.189***
	(0.04)	(0.04)	(0.04)	(0.04)
[-3; 3]	0.185***	0.186***	0.197***	0.193***
	(0.04)	(0.04)	(0.04)	(0.04)
(c) By group:				
G2007	0.300***	0.299***	0.316***	0.303***
	(0.09)	(0.09)	(0.09)	(0.09)
G2008	0.270***	0.278***	0.289***	0.292***
	(0.10)	(0.10)	(0.10)	(0.10)
G2009	0.199*	0.201*	0.198*	0.201*
	(0.11)	(0.11)	(0.11)	(0.11)
G2010	0.146	0.146	0.138	0.138
	(0.12)	(0.12)	(0.12)	(0.12)
No. of obs.	12,287	12,309	12,287	12,309
Pre-trends (Chi-2)	2.5236	2.5243	1.5915	1.5644
(p-value)	0.8658	0.8657	0.9594	0.9551
Not-yet-treated		Yes		Yes
Covariates			Yes	Yes

Notes: This table presents empirical results for the full sample of firms. The dependent variable is the log of ROS in a given firm and year. Panel (a) reports the simple ATT for all groups across all periods. Panel (b) reports the aggregated treatment effects by event, i.e., how the effect of privatization changes by the amount of time elapsed since privatization. Panel (c) reports aggregated treatment effects by group (i.e., each group of firms treated in the same year), over all periods. Table columns indicate models that toggle covariates and not-yet-treated units. Model (1), the baseline specification, has no covariate and uses never-treated units as controls. Model (2) has no covariate and uses not-yet-treated units as controls. Model (3) and (4) depart from the unconditional parallel trends assumption and show results conditional on several time-invariant covariates (size, industry, establishment period, region). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at the firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4.9: The impact of privatization on leverage (debt-to-Callaway and Sant'Anna (2021)

Dependent variable: debt-to-assets ratio (log)				
	(1)	(2)	(3)	(4)
(a) Total *ATT*:	-0.077***	-0.075***	-0.080***	-0.078***
	(0.02)	(0.02)	(0.02)	(0.02)
(b) By event:				
[-3; 0]	-0.021**	-0.020**	-0.025**	-0.022**
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 1]	-0.040***	-0.039***	-0.044***	-0.041***
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 2]	-0.050***	-0.049***	-0.053***	-0.051***
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 3]	-0.057***	-0.056***	-0.060***	-0.058***
	(0.01)	(0.01)	(0.01)	(0.01)
(c) By group:				
G2007	-0.095***	-0.092***	-0.100***	-0.096***
	(0.03)	(0.03)	(0.03)	(0.03)
G2008	-0.088**	-0.088**	-0.094**	-0.091**
	(0.04)	(0.04)	(0.04)	(0.04)
G2009	0.015	0.016	0.011	0.012
	(0.04)	(0.04)	(0.04)	(0.04)
G2010	0.001	0.001	-0.004	-0.004
	(0.04)	(0.04)	(0.04)	(0.04)
No. of obs.	14,375	14,376	14,375	14,376
Pre-trends (Chi-2)	4.4789	4.4789	4.5307	4.6262
(p-value)	0.6122	0.6122	0.6045	0.5926
Not-yet-treated		Yes		Yes
Covariates			Yes	Yes

Notes: This table presents empirical results for the full sample of firms. The dependent variable is the log of the debt-to-assets ratio in a given firm and year. Panel (a) reports the simple *ATT* for all groups across all periods. Panel (b) reports the aggregated treatment effects by event, i.e., how the effect of privatization changes by the amount of time elapsed since privatization. Panel (c) reports aggregated treatment effects by group (i.e., each group of firms treated in the same year), over all periods. Table columns indicate models that toggle covariates and not-yet-treated units. Model (1), the baseline specification, has no covariate and uses never-treated units as controls. Model (2) has no covariate and uses not-yet-treated units as controls. Model (3) and (4) depart from the unconditional parallel trends assumption and show results conditional on several time-invariant covariates (size, industry, establishment period, region). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at the firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4.10: The impact of privatization on total employment. Staggered DiD, Callaway and Sant'Anna (2021)

Dependent variable: Total employment (log)				
	(1)	(2)	(3)	(4)
(a) Total *ATT*:	-0.053***	-0.054***	-0.063***	-0.063***
	(0.02)	(0.02)	(0.02)	(0.02)
(b) By event:				
[-3; 0]	-0.015*	-0.016*	-0.021**	-0.022***
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 1]	-0.026**	-0.026**	-0.033***	-0.033***
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 2]	-0.028**	-0.028**	-0.037***	-0.037***
	(0.01)	(0.01)	(0.01)	(0.01)
[-3; 3]	-0.035**	-0.035**	-0.045***	-0.045***
	(0.01)	(0.01)	(0.01)	(0.01)
(c) By group:				
G2007	-0.091***	-0.092***	-0.104***	-0.104***
	(0.03)	(0.03)	(0.03)	(0.03)
G2008	0.040	0.040	0.027	0.027
	(0.04)	(0.04)	(0.04)	(0.04)
G2009	-0.082**	-0.081**	-0.089**	-0.089**
	(0.04)	(0.04)	(0.04)	(0.04)
G2010	-0.056*	-0.056*	-0.065*	-0.065*
	(0.03)	(0.03)	(0.03)	(0.03)
No. of obs.	14,503	14,503	14,503	14,503
Pre-trends (Chi2)	3.2848	3.2848	2.6731	2.7301
(p-value)	0.7723	0.7723	0.8486	0.8454
Not-yet-treated		Yes		Yes
Covariates			Yes	Yes

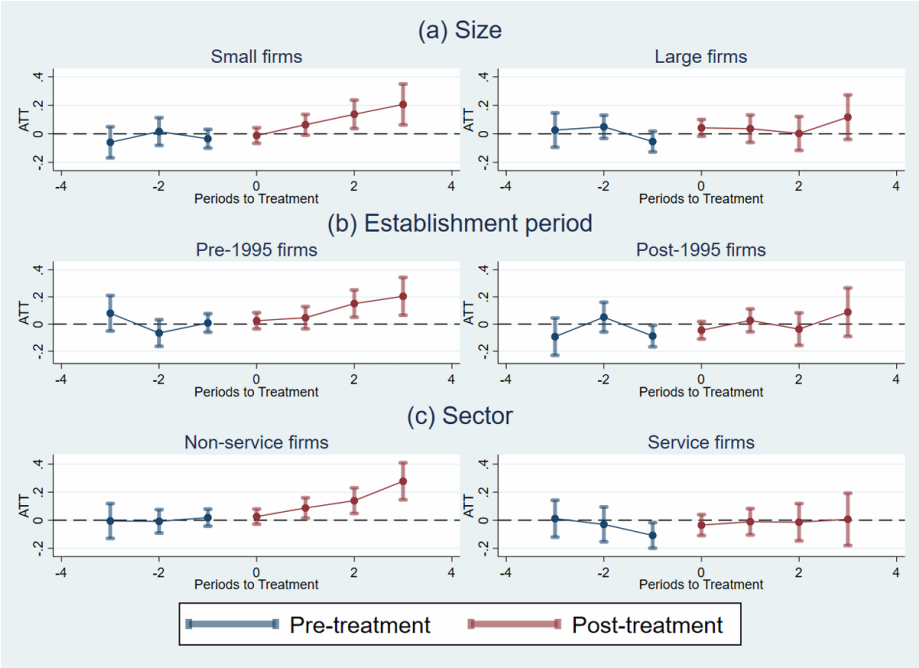
Notes: This table presents empirical results for the full sample of firms. The dependent variable is the log of total employment in a given firm and year. Panel (a) reports the simple *ATT* for all groups across all periods. Panel (b) reports the aggregated treatment effects by event, i.e., how the effect of privatization changes by the amount of time elapsed since privatization. Panel (c) reports aggregated treatment effects by group (i.e., each group of firms treated in the same year), over all periods. Table columns indicate models that toggle covariates and not-yet-treated units. Model (1), the baseline specification, has no covariate and uses never-treated units as controls. Model (2) has no covariate and uses not-yet-treated units as controls. Model (3) and (4) depart from the unconditional parallel trends assumption and show results conditional on several time-invariant covariates (size, industry, establishment period, region). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4.11: The impact of privatization on firm performance. Heterogeneity Analysis. Staggered DiD, Callaway and Sant'Anna (2021)

	Size		**Establishment Period**		**Sector**	
	Small	Large	Pre-1995	Post-1995	Non-services	Services
Sales/worker	0.072**	0.041	0.085**	-0.050	0.103***	-0.017
	(0.03)	(0.04)	(0.09)	(0.04)	(0.03)	(0.04)
No. Obs.	9,668	4,454	8,796	5,664	8,706	5,630
ROA (log)	0.247***	0.236**	0.391***	0.070	0.348***	0.091
	(0.08)	(0.12)	(0.12)	(0.09)	(0.08)	(0.09)
No. Obs.	7,884	3,987	7,503	4,720	7,300	4,902
ROE (log)	0.112	0.073	0.227**	-0.064	0.151	0.005
	(0.08)	(0.13)	(0.13)	(0.09)	(0.09)	(0.09)
No. Obs.	7,987	3,972	7,554	4,754	7,316	4,889
ROS (log)	0.291***	0.231**	0.390***	0.160*	0.358***	0.156*
	(0.08)	(0.11)	(0.09)	(0.08)	(0.08)	(0.09)
No. Obs.	7,896	3,996	7,522	4,765	7,342	4,843
Debt/Asset (log)	-0.078***	-0.107***	-0.081***	-0.076**	-0.076***	-0.075**
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
No. Obs.	9,630	4,449	8,744	5,631	8,731	5,613
Employment (log)	-0.071***	-0.046*	-0.077***	-0.034	-0.090***	-0.011
	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)
No. Obs.	9,710	4,452	8,786	5,663	8,729	5,646

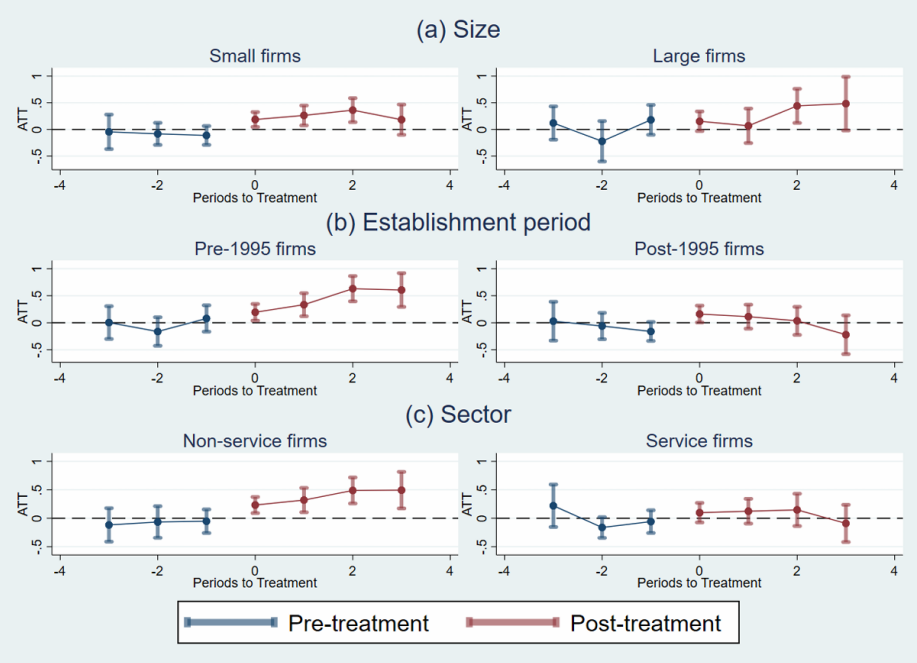
Notes: This table presents empirical results parsed on size, establishment period, and industry. The estimates report the average treatment effect on the treated (Total ATT), representing the average of all the estimated group-time specific treatment effects, weighted by the sizes of the treatment groups (Callaway and Sant'Anna, 2021). Large firms are those with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at the firm level in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Figure 4.2: Dynamic effects of privatization on sales per worker – Heterogeneity analysis



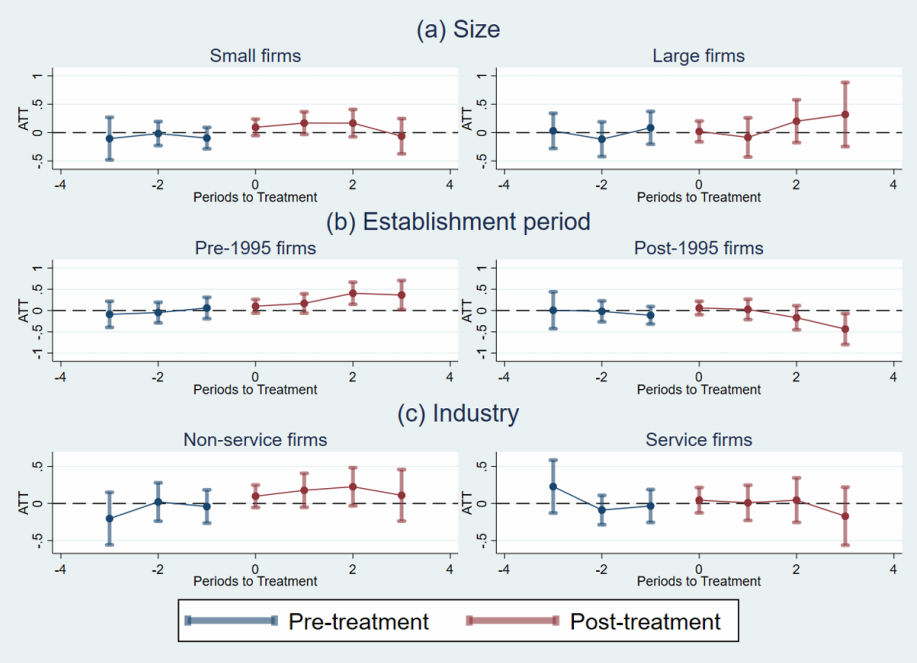
* Note: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.3: Dynamic effects of privatization on ROA – Heterogeneity analysis



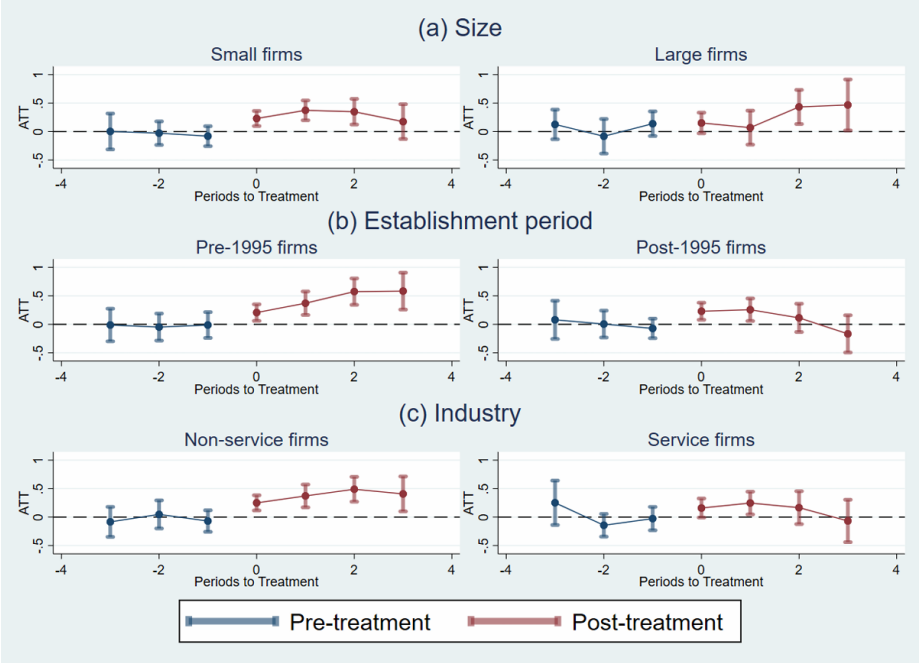
* Note: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.4: Dynamic effects of privatization on ROE – Heterogeneity analysis



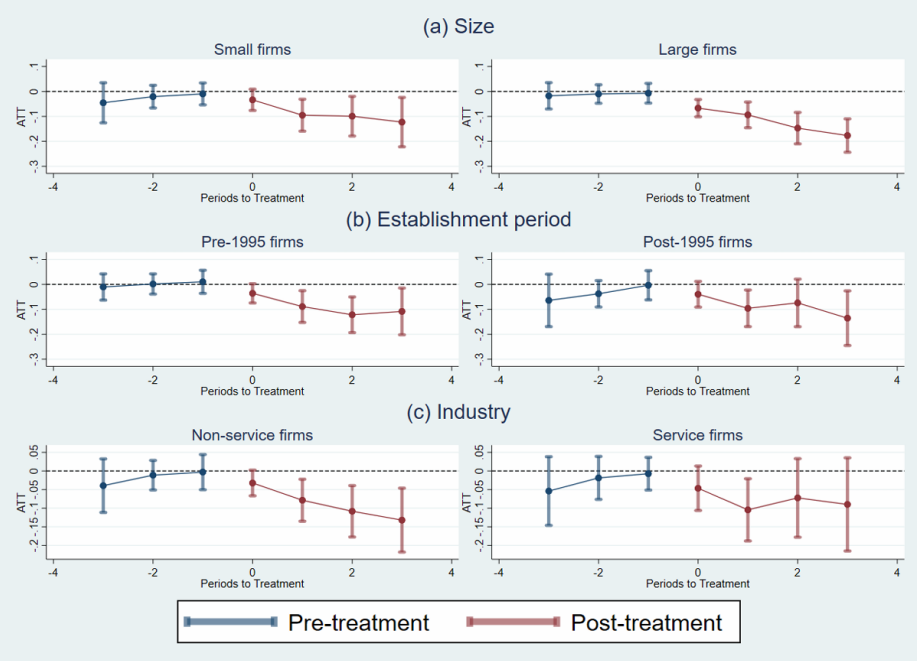
* Note: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.5: Dynamic effects of privatization on ROS– Heterogeneity analysis



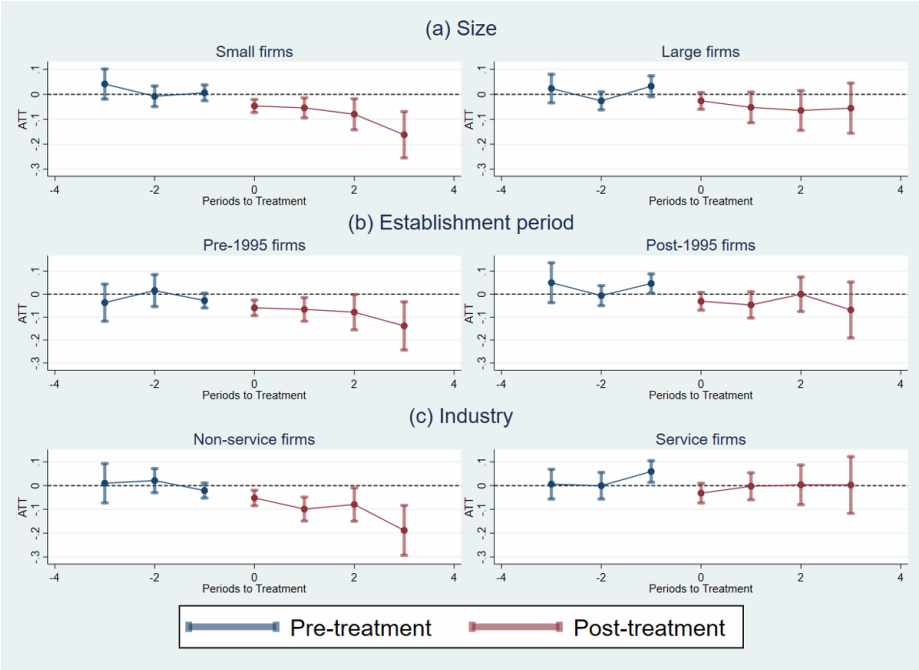
* Note: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.6: Dynamic effects of privatization on leverage – Heterogeneity analysis



* Note: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.7: Dynamic effects of privatization on employment – Heterogeneity analysis



* Note: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

4.4.2 Robustness checks

In the sections below, I test the stability of my results by conducting three robustness analyses using different modeling assumptions, sample construction rules, and outcome variable transformations. First, I compared the results obtained from the CS-DiD specification to those from the regular TWFE-DiD. Second, I conducted the same analysis on an unbalanced panel dataset. Third, I used alternative transformations for some of my outcome variables. The results are presented in the Appendix Figures 4.2 through 4.20.

4.4.2.1 TWFE-DiD versus CS-DiD

As recent literature has extensively discussed the limitations of TWFE-DiD (see, for example, L. Sun and Abraham, 2021), I compare the CS-DiD estimator with the TWFE-DiD estimator to see if the two estimators produce substantially different results. Appendix Figure 4.2 is an event study plot showing estimated average treatment effects and 95% confidence intervals before and after the privatization event occurs using dynamic TWFE and CS-DiD estimators. An event study can be useful here because it can visualize both key information about the comparability of the treatment and control groups in their dynamics prior to privatization and the main effects that occurred after privatization while juxtaposing the difference between TWFE-DiD and CSDiD in the same plot.

As evident from the plots, the effect of privatization on firm performance is not statistically different from the CS-DiD model, at least among the full sample of firms. In all cases, point estimates are in the same direction and magnitude. However, TWFE-DiD specification with leads and lags tends to pull the post-treatment $ATTs$ closer to zero, while the pre-treatment estimates seem to move further away from zero. Moreover, the two estimators generate estimates that are more similar in magnitude during the early years. Overall, these plots generally confirm the main findings, as both methods produce qualitatively similar results, though there is some attenuation in the effects of CS-DiD. The bias present within TWFE-DiD estimation under this scenario appears to shrink the estimated effects toward zero.

4.4.2.2 Using unbalanced panel data

So far, the study has been dealing with a subset of firms that are observed for all years. As observations are not likely to be missing at random (firms might stop reporting after they were acquired by other firms or shut down completely), dropping observations to make panel data balanced may introduce a bias in my estimates. Therefore, I conducted the same analysis using all available data in the unbalanced panel to check whether my findings change substantially. The results, shown in the Appendix Figures 4.3 through 4.8, suggest a somewhat weaker effect of privatization on firm performance. However, all estimates remain their signs and statistical significance levels. Moreover, since there's a

lack of pretrends, no evidence of violations of the parallel trends assumption is observed. Thus, using balanced data in the main analysis does not appear to present a major threat to my baseline specification.

4.4.2.3 Alternative transformations of outcome variables

Since some firms report zero and negative values of profit before taxes and logarithm transformation only works on positive numbers, Stata turns these values into missing and excludes them from the analysis. I avoid adding a constant to these values to make them positive because this technique does not treat negative, zero, and positive values symmetrically. However, using only positive values as such may also cause a certain loss of information, even though several studies do prefer this approach (see, for example, Chu, 2018). To address this issue, I transform 4 out of 7 outcome variables that have zero and negative values (Total sales before tax per employee, ROA, ROE, and ROS) using 3 alternative procedures: inverse hyperbolic sine transformation, neglog transformation, and cube root transformation. These transformations were suggested by Cox (2011) and have been used on income data (Schwartz, 1985). These transformations are appropriate in this case because my income data contains zeros and negative values, and more importantly, they can preserve the distinction between negative, zero, and positive values.

Appendix Figures 4.9 through 4.20 provide a set of robustness checks using these three alternative transformations. It is encouraging to see that all estimates from each transformation remain close to each other and the log transformed ones. Again, I also observe no statistically significant pre-trends, as the difference in firm performance is near zero for all three years prior to privatization. This evidence thus strengthens the causal interpretation of the estimates presented in the main results.

4.5 Conclusion

This study applies the staggered DiD model to explore the causal effects of privatization on the financial and operating performance of firms in Vietnam between 2006 and 2010. Many empirical studies report improvements in the

performance of newly privatized firms (see, for example, N. M. Tran et al., 2015; D. L. Truong and Tran, 2016). This study adds to the empirical literature that, following privatization, the newly privatized firms become more productive and profitable. They also experience a decline in employment and leverage.

This study also provides some insights into the sources of these performance changes. Specifically, the magnitude and significance of the effects reduced significantly when I restricted the sample to large firms, firms established after the enactment of the Law on State Enterprises in 1995, or those operating in the service sector.

Since post-1995 firms are firms that operate in strategic industries (Decree 90-TTg 1994; Decree 91-TTg 1994; Law on State Enterprise 1995), the state might hesitate to reduce its interference even though the majority of ownership had been transferred to the private sector. Likewise, for large SOEs, since they are more important to the economy than small SOEs, they may have an ongoing relationship with the government after privatization. This relationship makes them less likely to benefit from privatization.

Certainly, the most important result of this study is the lack of improvement in the performance of service firms following privatization. This finding may seem counterintuitive at first, as one would expect firms that have lower fixed assets and costs should find restructuring easier to deal with than firms with larger fixed assets and costs (Harper, 2002; Y. Chen et al., 2021). However, another mechanism behind this phenomenon may be rooted in the nature of service firms. Service firms often offer intangible goods, which fundamentally distinguishes them from non-service firms. This intangibility aspect introduces additional parameters that could influence the outcomes of privatization differently compared to other sectors that produce tangible output. [38]

Two potential scenarios could occur when a service SOE went through privatization. The first scenario involves firms that offer essential services considered to be akin to public goods. Privatizing such services might lead to adverse effects on dimensions of performance that are hard to measure, as shown by previous

[38]This empirical finding corresponds to the reality that occurred in Vietnam. The Law on Enterprises (2005) for the first time requested enterprises that produce or provide public goods or services (presumably including privatized firms) to "produce or provide goods or services with adequate quantity and proper quality within committed time limits at prices or charges set forth by competent state agencies" and to "ensure equal and favorable conditions for every customer".

research (Hart et al., 1997; Alonso and Andrews, 2016). In this context, the government could have intervened to mitigate potential negative impacts on consumers, potentially hindering short-term performance. The second scenario involves SOEs that provide non-essential services. Given the low level of fixed-cost investments required for providing non-essential services and high competition in the product markets, it can be more cost-effective for these SOEs to contract out to private firms than to produce inhouse. Such an outsourcing strategy would enable them to operate efficiently without too much input, which eventually contributes to the absence of restructuring and performance improvement post-privatization.

Taken together, the evidence suggests that large SOEs, strategic SOEs, and service SOEs tend to benefit less from privatization. For these firms, privatization only changes the ownership structure without having a substantial impact on its corporate governance (Vickers and Yarrow, 1991; Cuervo and Villalonga, 2000, Boubakri et al., 2004). In a heavily regulated environment, competing institutional logics and complex hierarchical structures within these firms can make negotiations and decision-making processes between public and private stakeholders particularly challenging (Alexius and Cisneros Örnberg, 2015; Christensen, 2015). Intangibility and the competitive nature of the service industries, on the other hand, make outsourcing more likely and keep productive efficiency high under no formal shift in ownership. These findings thus support the notion that privatization has significant positive effects on firm performance while emphasizing the significance of the regulatory context and the product market in which these firms operate.

Appendix Tables

Table 4.1: Number of privatized firms (2007-2010)

Year	**Number of privatized firms**	**Percentages**
2007	304	39.48%
2008	190	24.68%
2009	140	18.18%
2010	136	17.66%
Total	770	100%

Notes: numbers are computed from GSO's Enterprise Survey.

Table 4.2: Studies using DID approach and their quantitative results)

Study	**Data/Sample**	**Methodology**	**Result**
D. L. Truong et al. (2007)	Author's own survey of 147 privatized firms and 92 SOEs during 2000-2001.	DID (2x2)	All profitability measures of the privatized firms increase significantly, while leverage declines after privatization: - ROA increases around 4-8 percentage points. - ROE around 6 - 9 percentage points - ROS around 4 - 6 percentage points. - Leverage decreases by 15 percentage points.
N. M. Tran et al. (2015)	GSO of Vietnam's Enterprise Survey 2004-2008/309 equitized firms in 2006; 2,971 full period SOEs;	DID (2x2) with controls for age of firm, firm size, and industry	Privatization improves the performance of firms in terms of profitability: - ROA increases by 3%. - ROE increases around 5-8%.
D. L. Truong and Tran (2016)	GSO of Vietnam's Enterprise Survey 2007-2010/309 equitized firms in 2006; 2,971 full period SOEs;	DID (2x2)	Privatization has positive impacts on profitability and negative impacts on debt ratio, total asset turnover, and total employment: - ROA increases around 3.5 - 6.5%. - ROS increases around 10 - 21.5%. - Debt Ratio decreases 8 - 17%. - Total employment decreases by around 65-128 people.
Van Tan (2020)	GSO of Vietnam's Enterprise Survey 2012-2014/ 114 privatized vs. 296 non-privatized firms.	DID (2x2)	Overall, privatization does not lead to change in firm performance and employment.

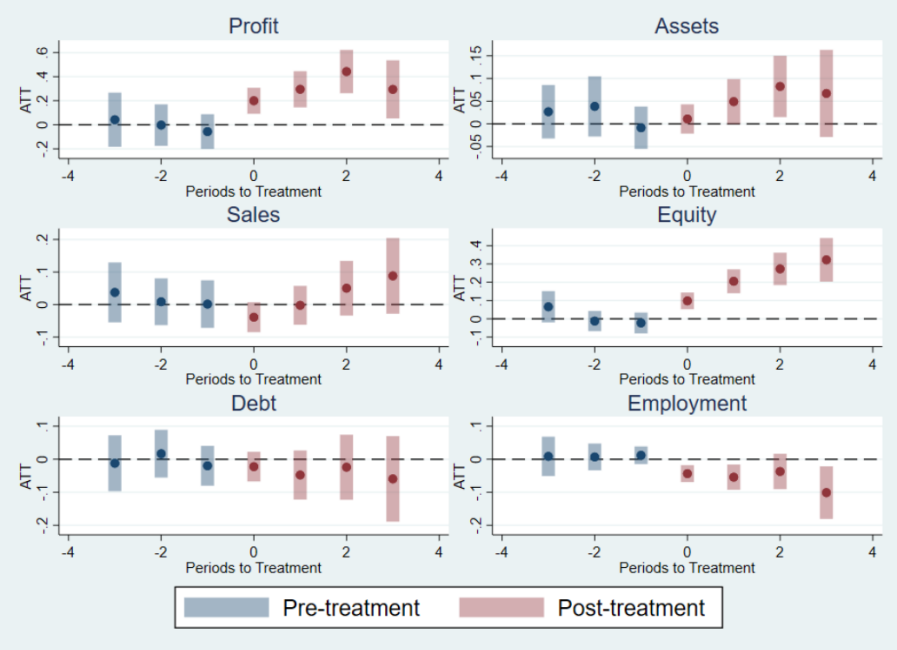
Table 4.3: The impact of privatization on firm performance: Privatization versus Equitization

Variable	**Privatization**	**Equitization**
Sales per employee (log)	0.049*	0.076*
	(0.03)	(0.04)
ROA (log)	0.235***	0.174*
	(0.06)	(0.09)
ROE (log)	0.088	0.114
	(0.07)	(0.10)
ROS (log)	0.269***	0.275***
	(0.06)	(0.09)
Debt Ratio	-0.077***	-0.260
	(0.02)	(0.03)
Employment	-0.053***	-0.068**
	(0.02)	(0.03)

Notes: The estimates report the average treatment effect on the treated (Total *ATT*), representing the average of all the estimated group-time specific treatment effects, weighted by the sizes of the treatment groups (Callaway & Sant'Anna, 2021). Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (drimp in csdid is Stata) - Sant'Anna and Zhao (2020). Bootstrapped errors at the firm level are in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

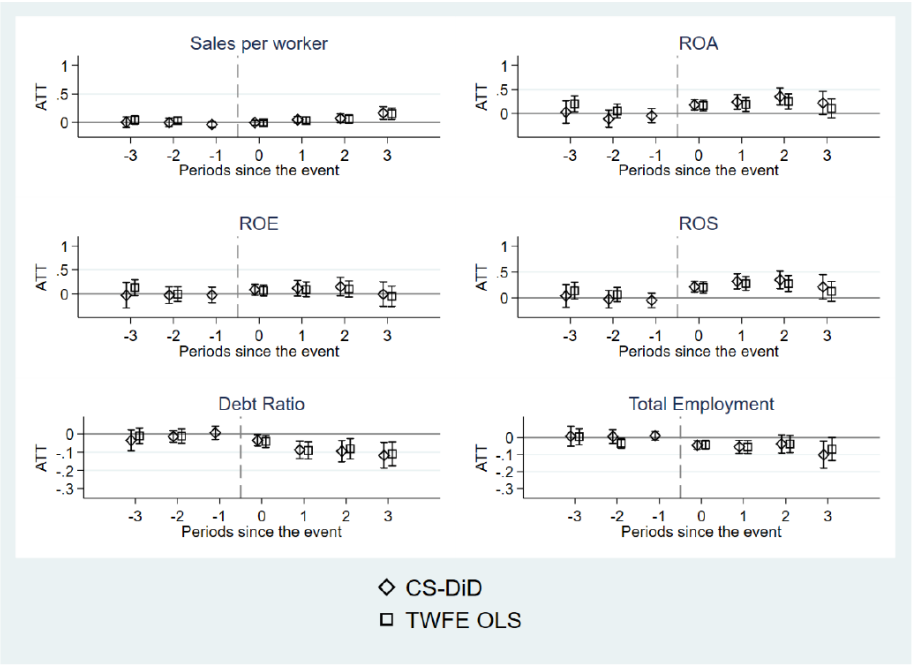
Appendix Figures

Figure 4.1: Dynamic effects of privatization on profit, assets, sales, equity, debt, employment.



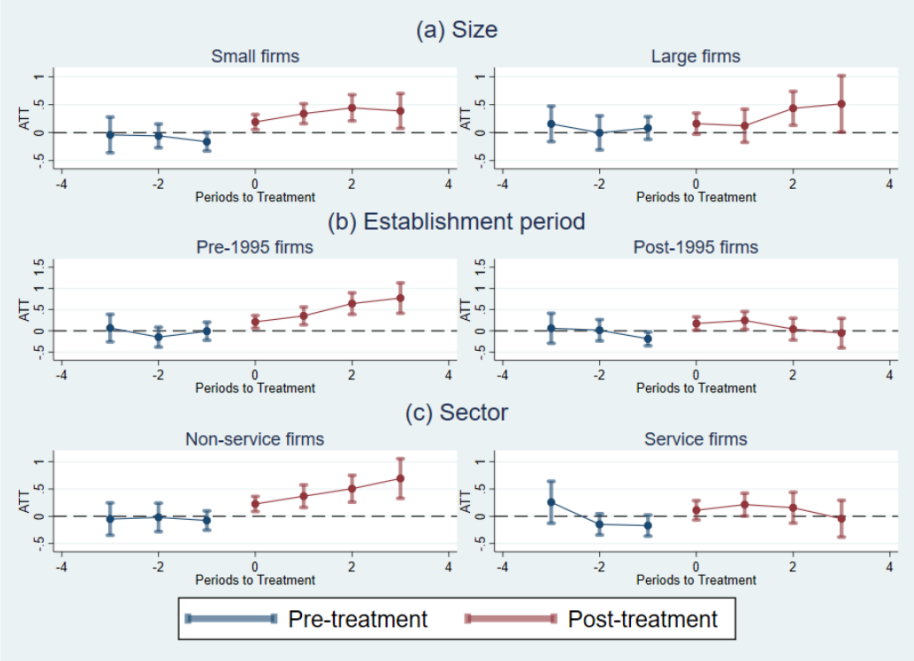
Notes: All variables were logged transformed.

Figure 4.2: Dynamic effects of privatization: CS-DiD vs. TWFE-OLS.



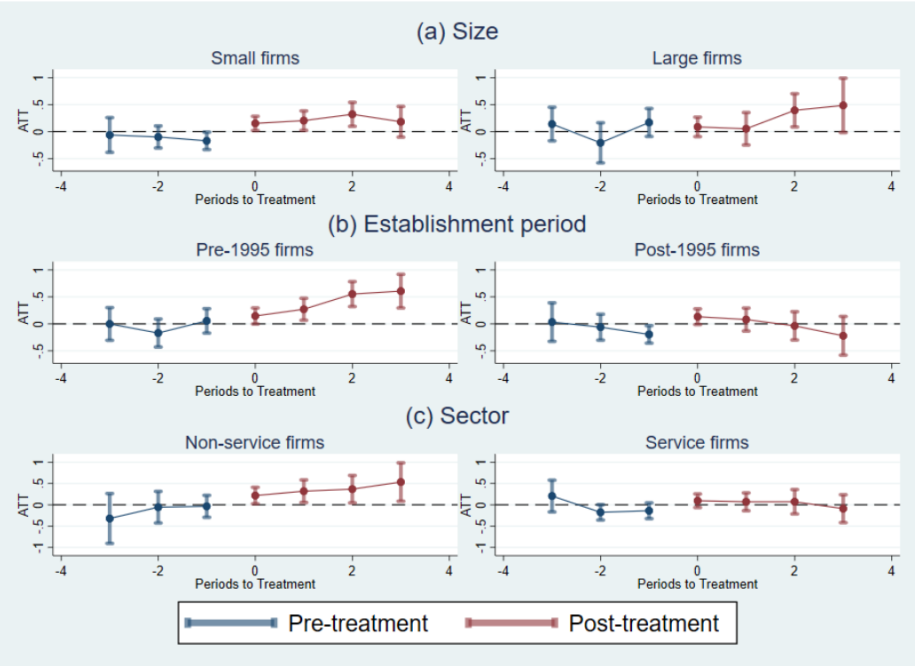
Notes: All variables were logged transformed.

Figure 4.3: Dynamic effects of privatization on sales per worker – Heterogeneity analysis. Unbalanced panel.



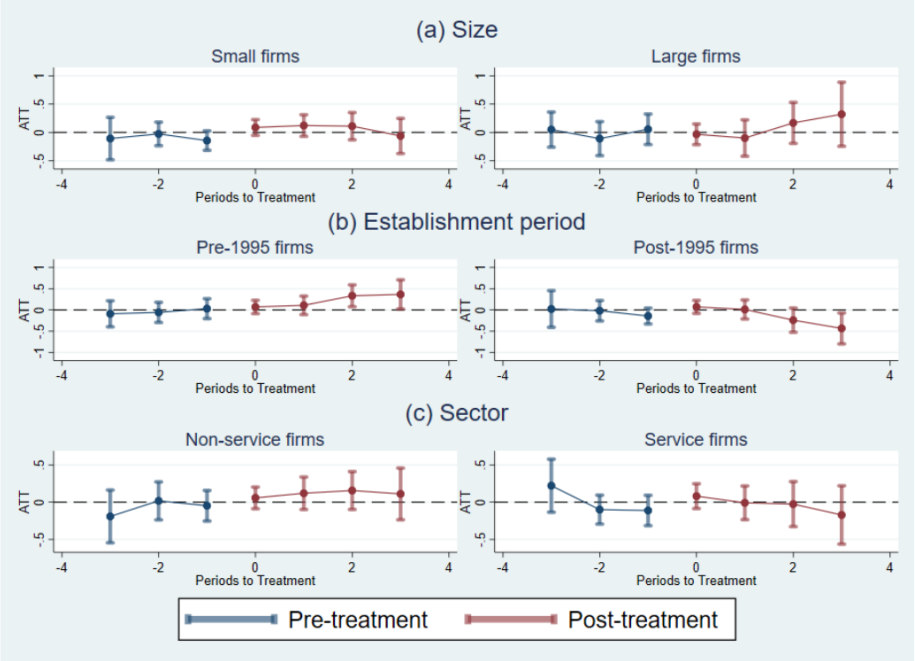
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.4: Dynamic effects of privatization on ROA – Heterogeneity analysis. Unbalanced panel.



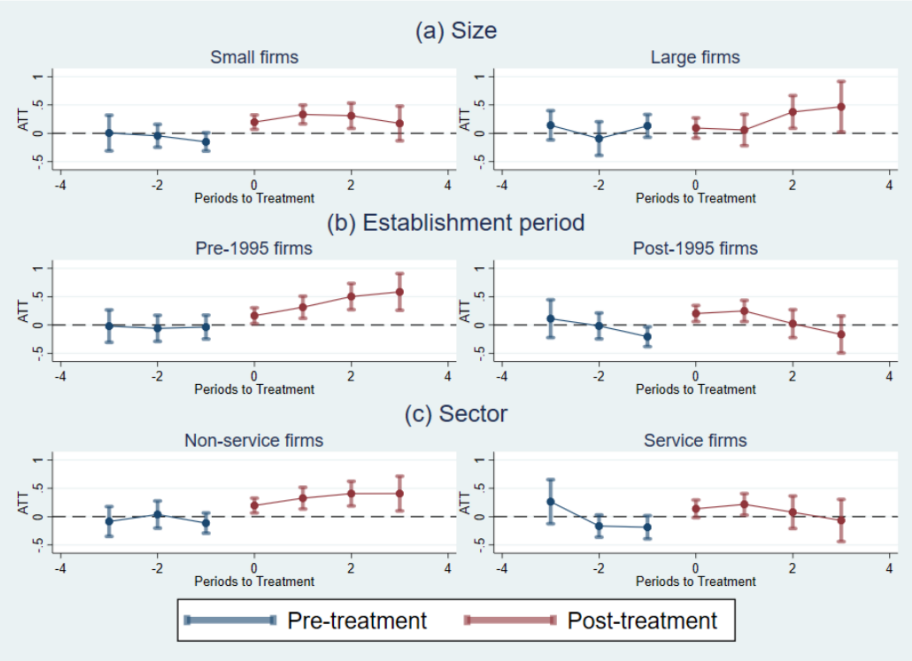
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.5: Dynamic effects of privatization on ROA – Heterogeneity analysis. Unbalanced panel.



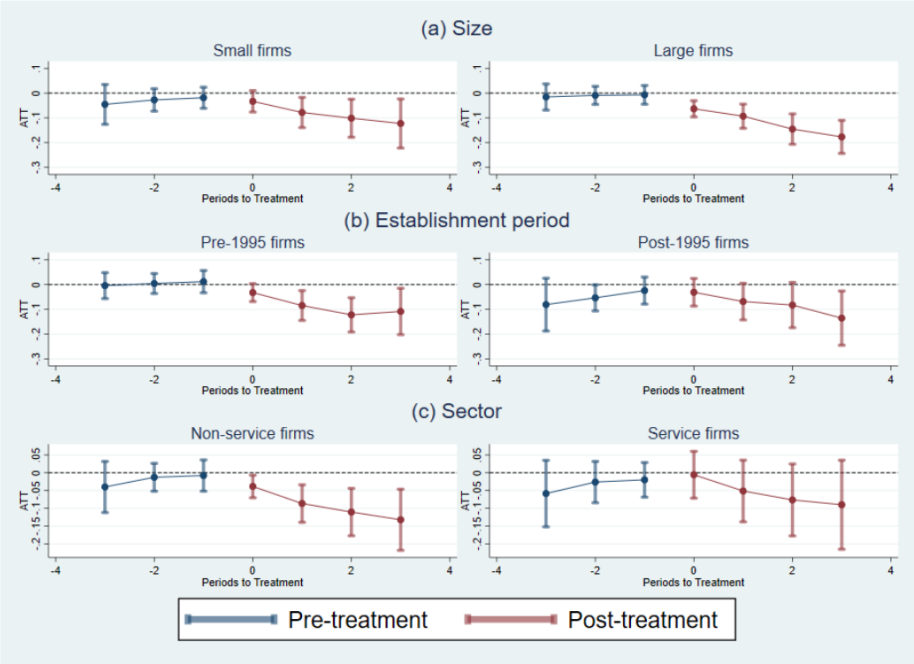
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.6: Dynamic effects of privatization on ROS – Heterogeneity analysis. Unbalanced panel.



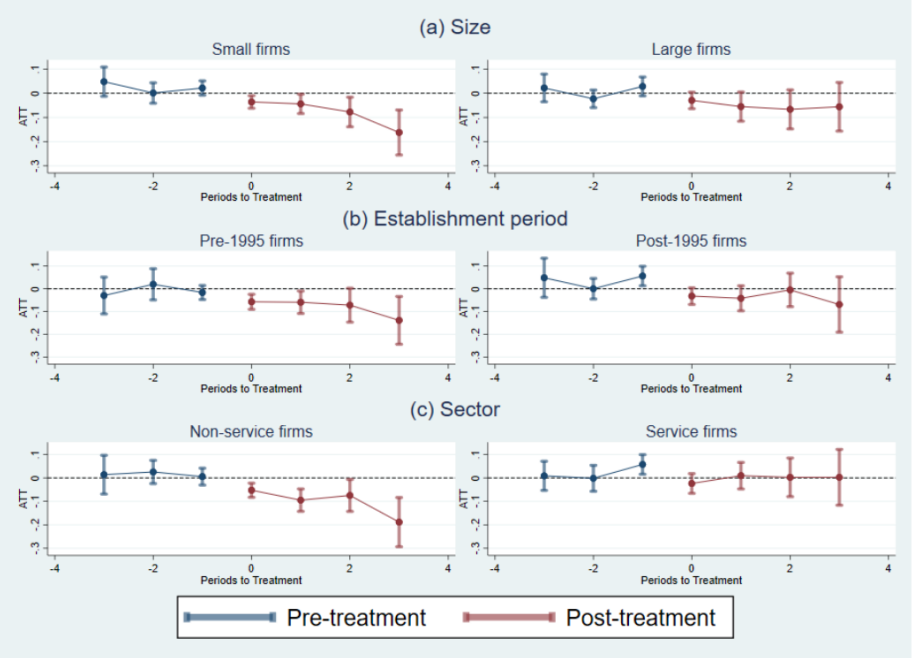
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.7: Dynamic effects of privatization on leverage – Heterogeneity analysis. Unbalanced panel.



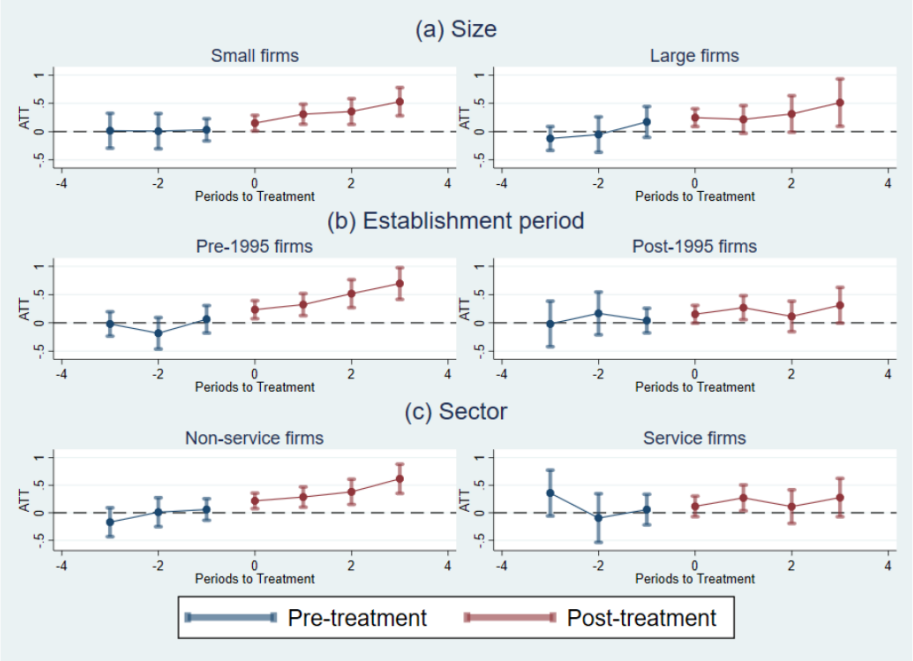
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.8: Dynamic effects of privatization on employment – Heterogeneity analysis. Unbalanced panel.



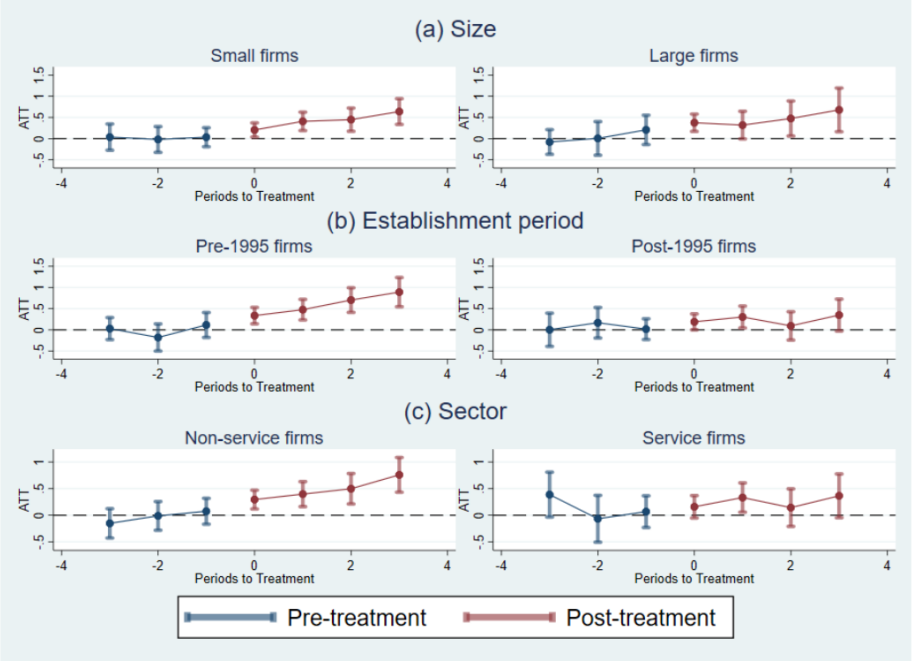
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.9: Dynamic effects of privatization on sales per worker (cuberoot) – Heterogeneity analysis.



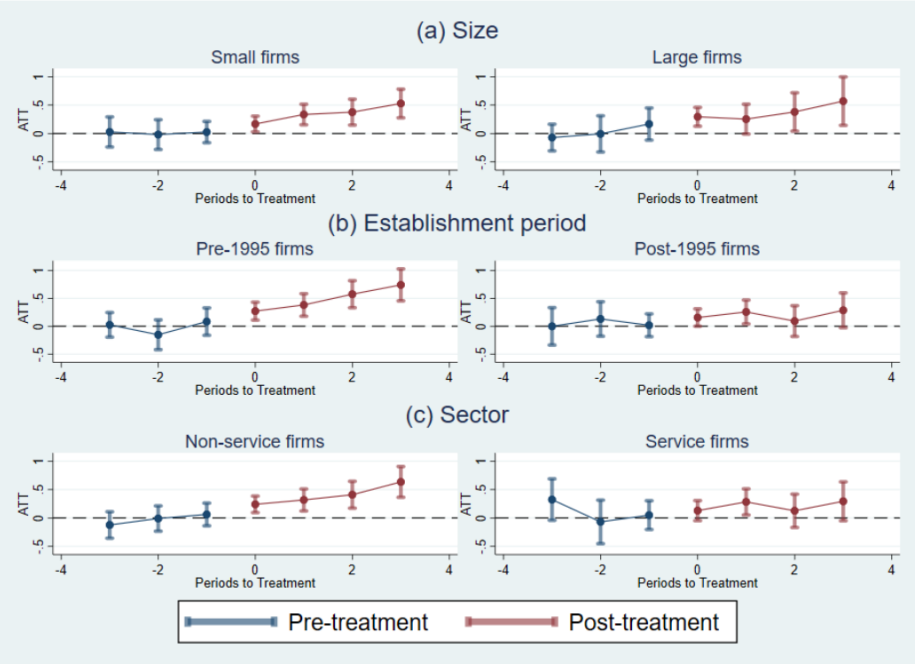
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.10: Dynamic effects of privatization on sales per worker (asinh) – Heterogeneity analysis.



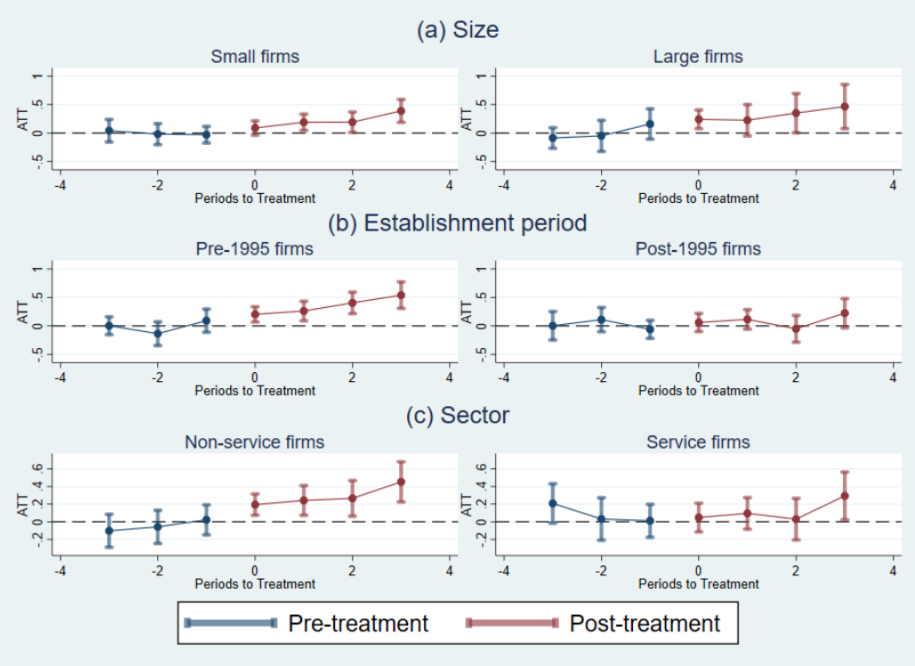
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.11: Dynamic effects of privatization on sales per worker (neglog) – Heterogeneity analysis



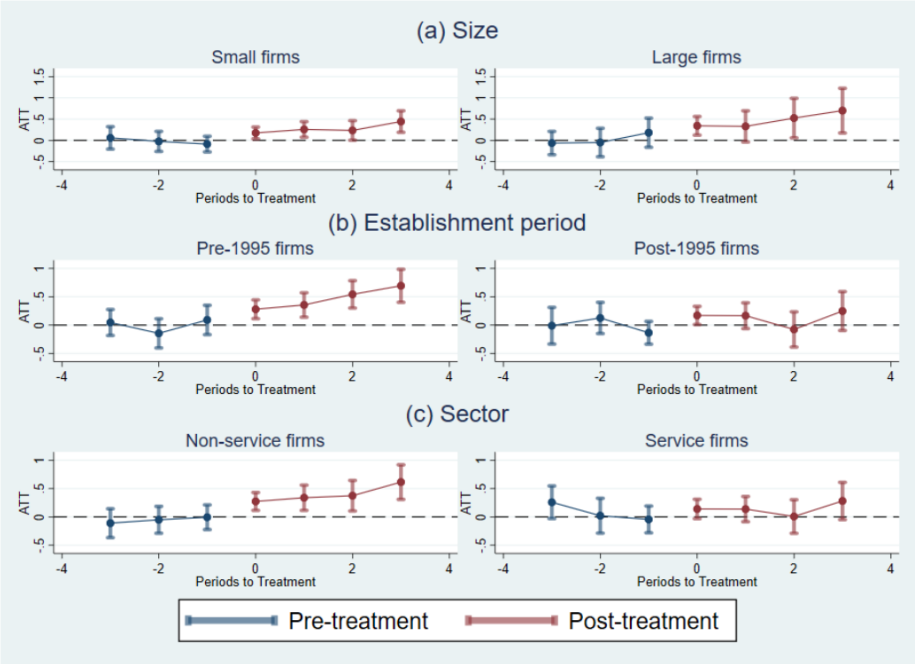
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.12: Dynamic effects of privatization on ROA (cuberoot) – Heterogeneity analysis.



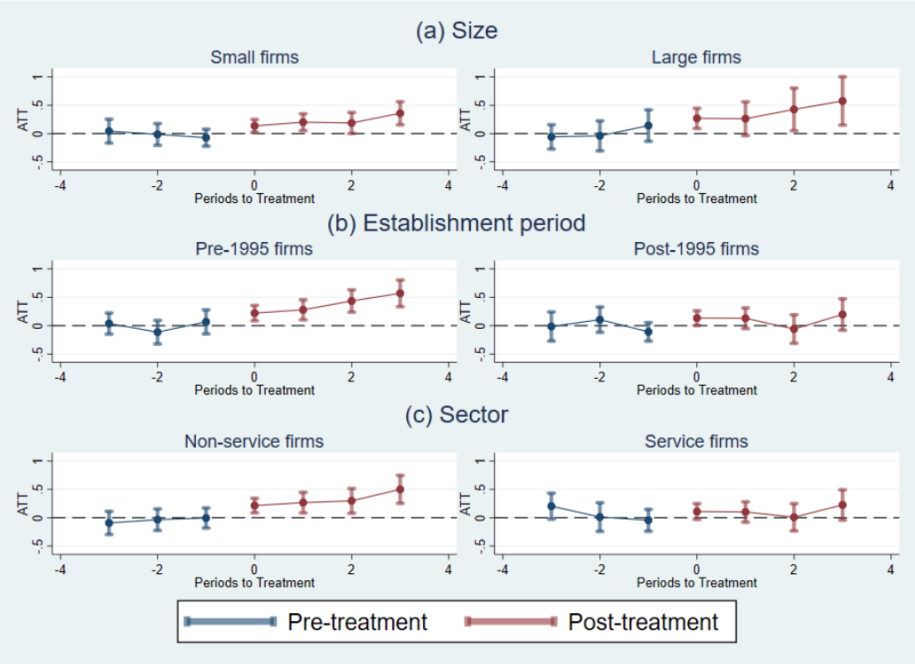
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.13: Dynamic effects of privatization on ROA (asinh) – Heterogeneity analysis.



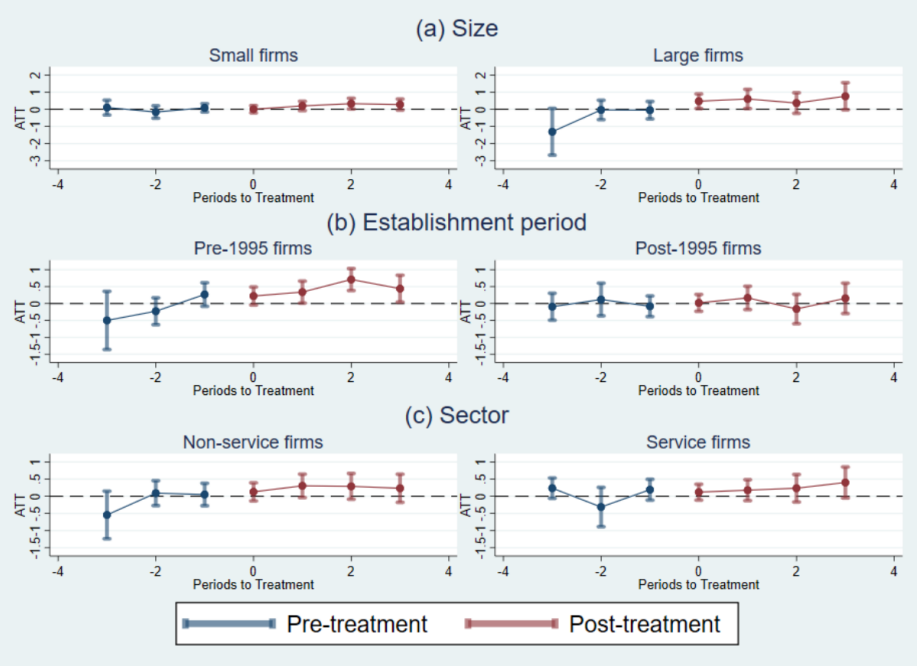
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.14: Dynamic effects of privatization on ROA (neglog) – Heterogeneity analysis.



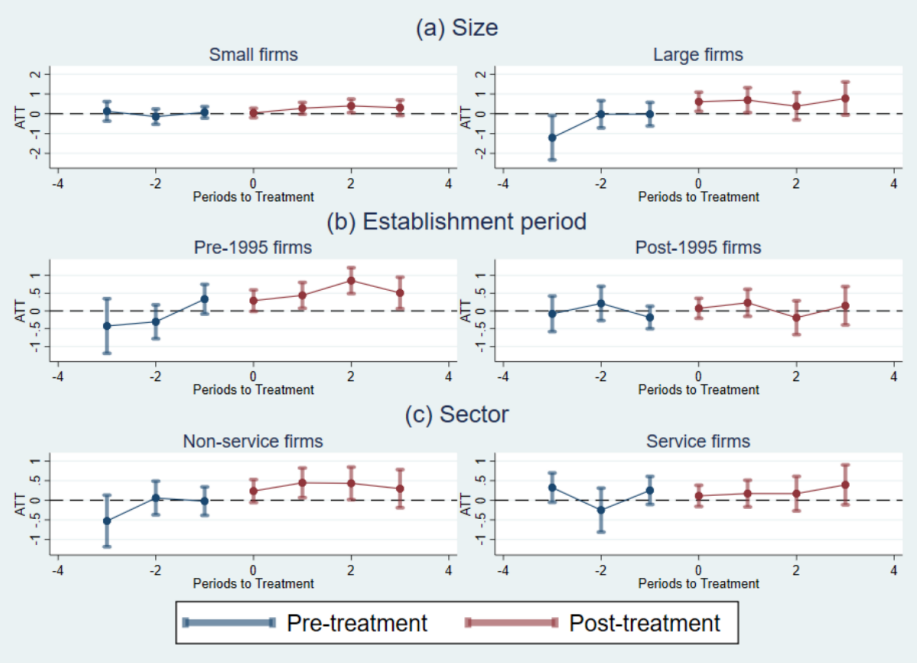
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.15: Dynamic effects of privatization on ROE (cuberoot) – Heterogeneity analysis.



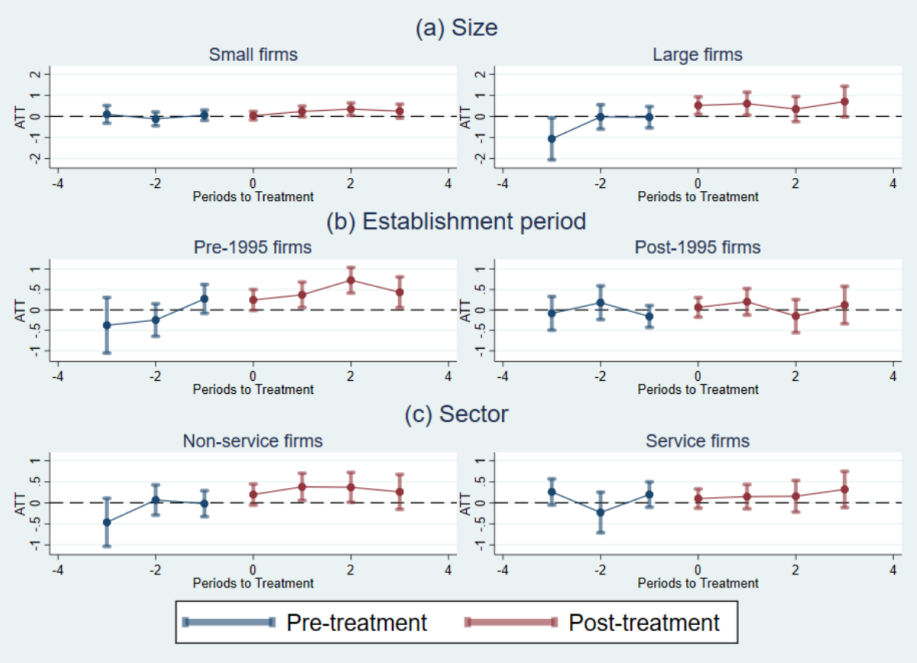
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.16: Dynamic effects of privatization on ROE (asinh) – Heterogeneity analysis.



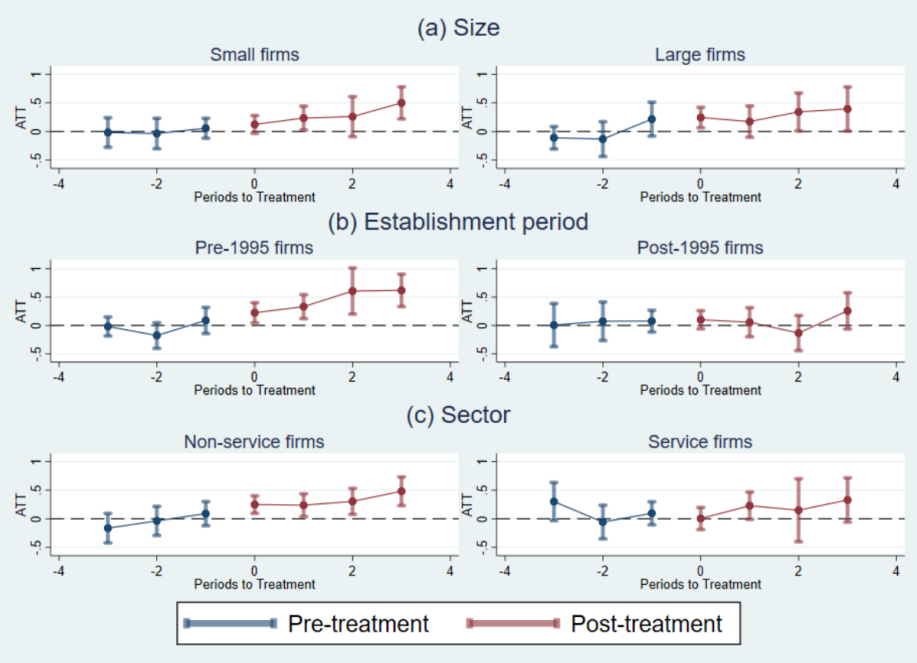
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.17: Dynamic effects of privatization on ROE (neglog) – Heterogeneity analysis.



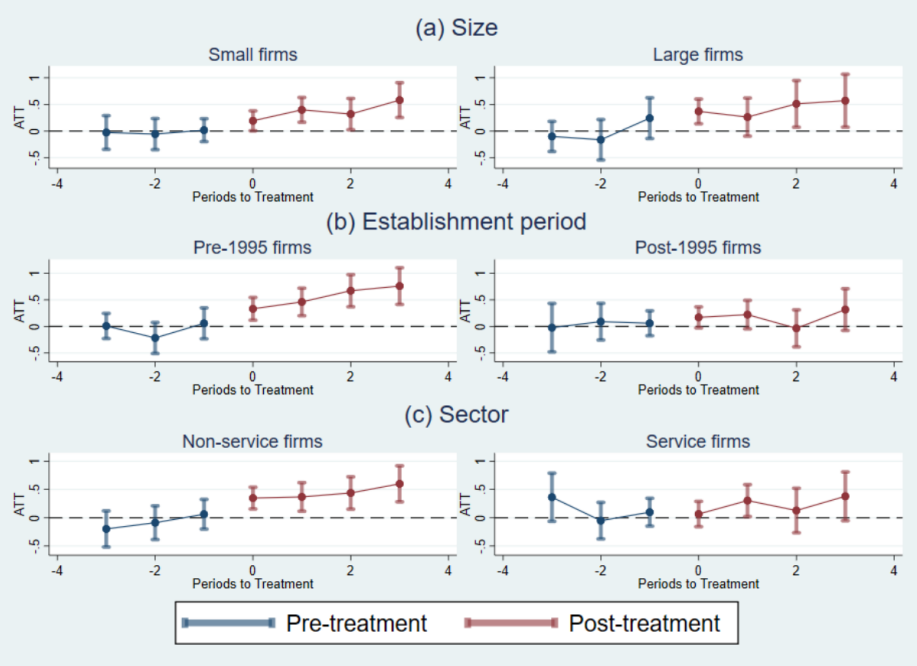
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.18: Dynamic effects of privatization on ROS (cuberoot) – Heterogeneity analysis.



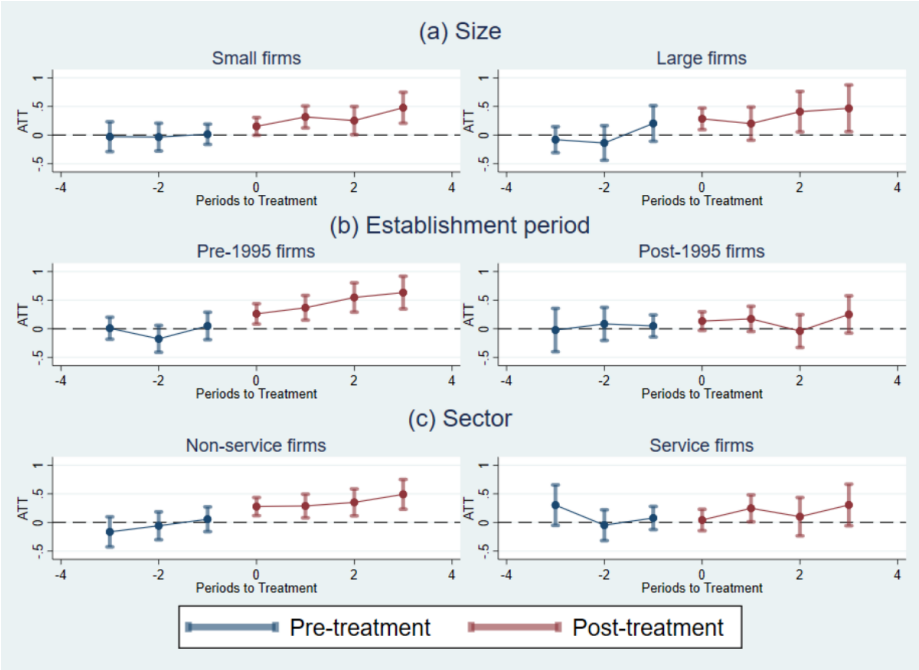
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.19: Dynamic effects of privatization on ROS (asinh) – Heterogeneity analysis.



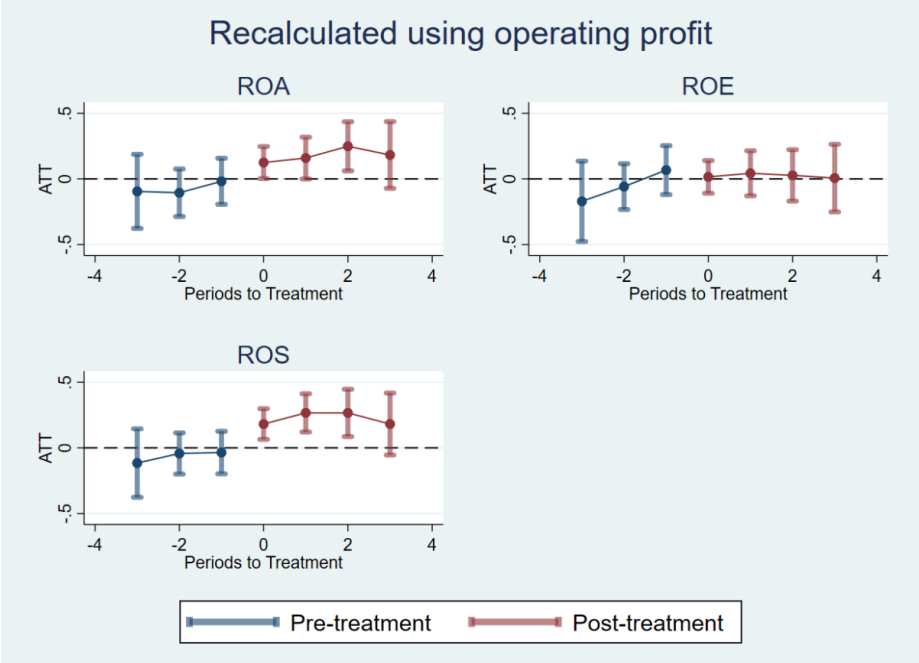
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.20: Dynamic effects of privatization on ROS (neglog) – Heterogeneity analysis.



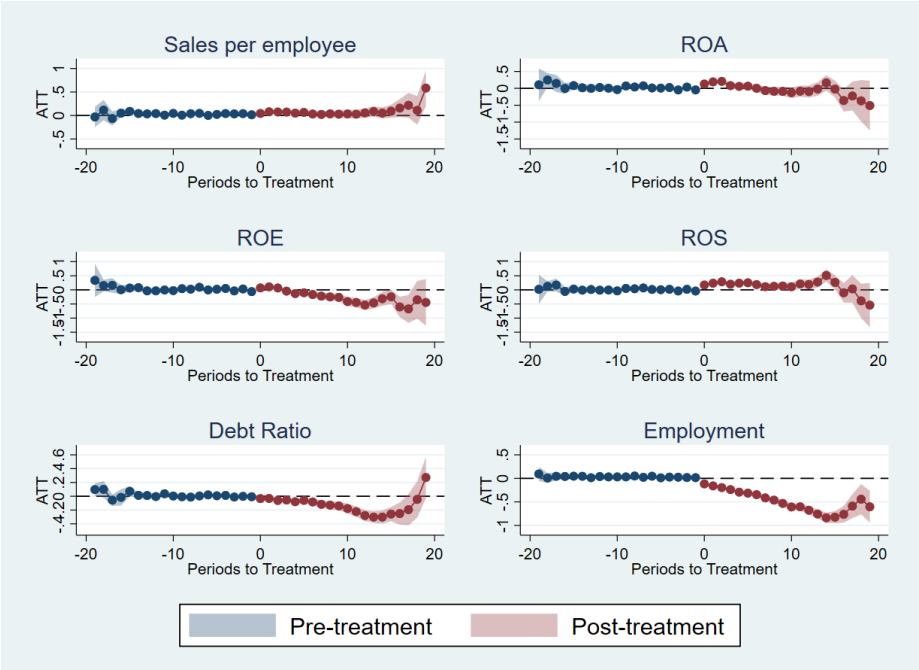
Notes: Large firms are firms with at least 300 employees (Decree No. 90/2001/ND-CP). Post-1995 firms are firms established after 1995 and required by the law to operate in strategic industries (Law on SOEs, 1995). Classification of service firms is based on Vietnam Standard Industrial Classification (2007). Plot is based on estimation using never-treated units as comparison group and unconditional parallel trends assumption. Estimation method: improved doubly robust DiD estimator based on inverse probability of tilting and weighted least squares (Sant'Anna & Zhao, 2020).

Figure 4.21: Recalculation ROA, ROE, and ROS using operating profits.



Notes: Operating profits = profits from main business.

Figure 4.22: The dynamic impacts of privatization on firm performance (long panel).



Notes: All variables are log transformed.

Chapter 5

Privatization and industry concentration: the moderating role of privatization speed

5.1 Introduction

In the academic literature, Vietnam has been consistently classified as a slow reformer (Dinh, 2000; Gainsborough, 2004; Ngu, 2003). In terms of privatization, it means that the process of privatization has been implemented over a relatively long period of time, and after other economic liberalization reforms were already put in place. It is argued that such a slow process of privatization can be beneficial since it allows necessary institutional frameworks to mature before privatization eventually occurs (Konings et al., 2005; Stiglitz, 1999). A gradualist approach minimizes the risks associated with rapid economic transitions, such as severe output collapse and social unrest, as seen in countries that adopted "shock therapy" privatization methods (Stiglitz, 1999).

On the other hand, proponents of rapid privatization (e.g., Lipton and Sachs, 1992; Shleifer and Treisman, 2000, Havrylyshyn et al., 2016) argue that implementing privatization over a long period of time allows entrenched self-interest pressure groups interests to entrench themselves further, leading to resistance

and corruption (Marangos, 2003). In the case of Vietnam, studies have indeed found that the slow pace of privatization was largely due to different interest groups, who may be insiders benefiting from the old system, having developed strategies to delay privatization to protect their own interests (Gainsborough, 2004; Ngu, 2003; Wacker, 2017). A rapid privatization process would, therefore, reduce the window of opportunity for these opposition groups to organize themselves and make plans to sabotage privatization.[1] Moreover, SOE managers, facing an endgame situation (i.e., they would lose their job eventually due to privatization), would engage in stripping of state assets. By privatizing firms as fast as possible, the opportunity for asset stripping can be minimized (Blanchard, 1993).

Rapid privatization, however, also contains certain risks. Besides a likely severe output collapse, one major concern is the problem of rising market concentration as the result of rapid transition in a weak institutional environment (Tirole, 1991).[2] A real-life example is the rise of Russian government-connected oligarchs after the big-bang privatization in Russia during the early 1990s (Stiglitz, 1999; Stiglitz & Ellerman, 2001). During this period, large-scale privatization led to a handful of individuals accumulating wealth very rapidly and gaining control over substantial portions of the Russian economy (Guriev & Rachinsky, 2005). These oligarchs then leveraged their immense wealth to influence political actors and shape policies that preserved and enhanced their economic dominance (Godoy & Stiglitz, 2005). They might develop a powerful incentive to obstruct subsequent regulatory efforts in natural monopoly sectors (Stiglitz, 1999). Similarly, in industries where competition was feasible, they could resist attempts to establish a truly competitive marketplace. The result was a very high level of market concentration.[3] Russian experience has become a frequently cited cautionary tale against rapid privatization processes (Coulloudon, 1998; Popov, 2007; Stiglitz, 1999), as the normative assumption nowadays is that privatization should not lead to high market concentration (World Bank, 1995, p. 16).

[1] See, for example, Aslund (1991), Lipton and Sachs (1992), and Roland (2008).

[2] Market concentration refers to the extent to which a small number of firms dominate total sales, production, or capacity in a particular market.

[3] For instance, private companies such as Yukos, Sibneft, and Rusal had effectively acquired a significant proportion of public resources at a fraction of their value (Black et al., 1999).

Would the same issue happen to Vietnam or any other transition countries if they were to adopt the same rapid privatization strategy as Russia? Poland, for example, adopted a shock therapy approach in the early 1990s, at the same time as Russia. As one aspect of the Balcerowicz Plan launched in January, 1990, SOEs were quickly privatized and restructured.[4] Poland experienced a sharp contraction in output initially, but in only 6 years, the economy had stabilized and begun to grow by 1994 (Kattuman & Domañski, 1997; Sachs & Woo, 1994). Later on, Poland consistently achieved high GDP growth rates and was among the fastest-growing economies in Europe. Yet, Poland is not comparable with Russia, since Poland used a variety of methods to privatize SOEs, including direct sales, public offerings, and employee buyouts, while Russia used voucher privatization as the main method of privatization.[5] Additionally, Poland may have performed better than Russia simply because it could trade with other European countries (Havrylyshyn et al., 2016). Godoy and Stiglitz (2005) even argue that Poland should not be considered a rapid reformer, as its mass privatization plan was not sustained in the long run; thus, according to the authors, Poland is better characterized as a gradual reformer. Similarly, Marangos (2003) argues that Russia did not truly implement a shock-therapy approach to privatization but rather adopted a more gradual approach over time. Evidently, the debate between shock therapy and gradualist privatization remains unresolved until now, mainly because direct comparisons of privatization across countries are difficult, given the unique institutional and historical legacies of each country at the time of reform, as well as the challenges in classifying reform strategies.

As the heated debate between gradualism and big-bang reformers is still ongoing, the purpose of this study is (1) to analyze the relationship between privatization and industry concentration, and (2) to investigate how the speed of privatization affects this relationship. By focusing on a single country, Vietnam, I eliminate differences in economic settings, political systems, and methods of privatization. The level of analysis is the industry, since each industry can be assumed to have been privatized to a different degree and at a different

[4]There were a number of components in the reform packages, but the more difficult tasks were privatization of firms, land, housing, and social assets (Kattuman & Domañski, 1997).

[5]Consequently, ownership was distributed more widely among the population and prevented the concentration of wealth in the hands of a few.

pace, which allows for sufficient variation for statistical analysis.[6]Aggregating data across industries within one country like this minimizes the impact of cultural and social differences that can significantly influence economic outcomes. Moreover, institutional quality is typically consistent within a country. This homogeneity helps in focusing on industry-specific factors rather than broader cultural, social, and institutional influences introduced by cross-country differences.

In the case of Vietnam, aggregating data at the industry level also provides an additional perspective on privatization, one that complements the traditional firm-level definition as "the sale of state-owned assets or equity to private investors in exchange for cash payments" (Megginson, 2010). By redefining privatization as the proportion of assets in an industry that is controlled by non-state firms, I can explore how privatization may be associated with changes in market structures. By reducing the share of assets it owns in an industry, the State essentially decreases the level of resources available to state-owned firms, thereby expecting the state enterprise sector to operate more efficiently and the non-state sector to gradually take over the industry. This definition reflects the extent to which the State is willing to retreat from industrial production, using various methods to reduce the role of the State, such as selling state assets, reducing state production targets, and implementing industrial policies (see, e.g., Amess and Roberts, 2007). This industry-level perspective aligns with the gradual process of Vietnamese privatization, where the transfer of assets has been accompanied by institutional measures to promote the role of the private sector in the economy.

In the literature, the relationship between privatization and industry concentration remains contestable, since privatization is likely to affect market structure differently across various industries (Okten & Arin, 2006). In upstream industries with economies of scale characteristics such as energy and utilities, privatization would create a market structure in which some private firms have considerable market power (Kattuman & Domañski, 1997; Konings et al., 2005; Manzetti, 1999; Tirole, 1991). When natural monopolies like this exist, a public monopoly will be transformed into a private monopoly through privatization,

[6]To obtain data at the industry level, I aggregate firm-level data using four-digit Standard Industrial Classification codes (VSIC, 2007).

which exacerbates market concentration and negatively affects consumer welfare (Hubbard, 2016; Jomo, 2008; Layne, 2000).

Conversely, in downstream industries with lower barriers to entry, privatization can lead to decreased concentration. As competition increased, some businesses would have to contract or close down, while others would enter the market and grow. Consequently, certain industries would experience increased concentration, while others would see a reduction in market concentration. Furthermore, in many countries, including Vietnam, SOEs have largely exited competitive sectors, such as manufacturing. However, they remain important providers in network industries such as energy and services sectors (Kikeri, 2022). As the relationship between privatization and concentration depends on industry characteristics, this study includes various control variables at industry level, i.e., industry capital intensity, industry size, industry profitability, and industry fixed assets to total assets ratio.

Given that Vietnam is an economy in transition, there are two alternative predictions for the relationship between the change in private ownership and industry concentration. The first prediction aligns with the notion that some large state enterprises contracted in size, while the surviving SOEs in transition countries have resulted from the consolidation of smaller SOEs (Amess & Roberts, 2007; Kattuman & Domañski, 1997). This clearly increased the relative dominance of those who survived. Such consolidation reduces the number of SOEs and assets under state control, but at the same time creates monopolies in certain strategic industries and prevents new market entrants and increasing concentration in these areas (Chou, 1986).

Meanwhile, another argument posits that privatization can negatively impact industrial concentration. With the new entrants of firms, rapid privatization was expected to foster competition, which in turn would catalyze the quick development of markets for goods, labor, and capital (Stiglitz, 1999). This market-driven environment would then facilitate the extensive reallocation of resources essential for a profound restructuring of the economy. Moreover, as SOE managers often established their own private firms in the process of privatization (Amess & Roberts, 2007; Slay, 1995), such a new influx of firms also

contributed to the reduction in industry concentration.[7]

The last argument is that privatization in environments with weak institutions tends to increase market concentration more than in settings with robust institutions (Bjorvatn & Søreide, 2005). Moreover, this effect is likely to manifest in the long run, as the size structure slowly moves to equilibrium (Kattuman & Domañski, 1997; Tirole, 1991).[8]Applying this framework to Vietnam from 2006 to 2018, one might expect privatization to result in reduced market concentration, given Vietnam's improved institutional framework compared to earlier periods.

Using data from the General Statistical Office of Vietnam's Enterprise Census, this study offers an in-depth analysis of the privatization-concentration nexus. Examining the period from 2006 to 2018, my main findings suggest that privatization significantly reduces market concentration at industry level. This relationship holds true for two measures of market concentration, HHI (Herfindahl-Hirschman Index) and CR4 (Concentration Ratio of the top 4 firms). The results further reveal that privatization speed has a moderating role on the relationship between concentration and privatization. Specifically, a faster privatization process has a greater effect on reducing industrial concentration, while a slower process would reduce this effect. In general, increased privatization leads to lower market concentration, and a more rapid process is more beneficial in reducing concentration.

These results have several implications for the extant empirical literature. First of all, it contributes to the debate over the optimal speed and sequence of privatization. As privatization generally reduces market concentration at the industry level, it can be an effective tool to reduce market power held by a few dominant firms. More importantly, faster privatization has a greater effect on reducing industrial concentration. This finding provides empirical support to the "big bang" or rapid reform approach, suggesting that quicker privatization might be more effective in creating less concentrated markets. The fact that quicker privatization leads to greater reductions in market concentration could

[7]While this creation of new private firms reduces industry concentration, it does not necessarily lead to increased competition, as these new firms win contracts because they're able to maintain close ties with the state enterprises that created them.

[8]This insight helps explain the contrasting outcomes of privatization in Russia and Poland - devastating in the former and more positive in the latter.

be used to argue for accelerated privatization programs in transition economies, if the goal of privatization is to create less concentrated markets (which is often the case).[9]

Second, these results also touched upon the relationship between privatization and competition. Theoretically, as new management of the privatized firms may invest in cost-saving technologies, privatization can improve productivity and potentially make firms more competitive (Hart et al., 1997; Schmidt, 2000). If these new technologies have a positive spillover effect on other firms in the same industry, the entire industry will benefit and allocative efficiency will improve (Okten & Arin, 2006). Competition then increases the performance of privatized firms (Warzynski, 2003). Existing empirical studies, however, have been limited to firm-level analysis. For instance, Konings et al. (2005) study how privatization affected firm-level price-cost margins.[10] This means that firms become more competitive in terms of pricing close to marginal costs (Konings et al., 2005). A number of studies have also focused on the effects of privatization on firm-level competitiveness (see, e.g., D. Brown and Earle, 2001; Hersch et al., 1994; Walsh and Whelan, 2001; Okten and Arin, 2006). My study, on the other hand, contributes to the literature by analyzing how privatization affects market efficiency at industry level. As my results indicate that privatization is associated with reduced industry concentration, spillovers to other firms in the same industry could be substantial. Since firms in highly concentrated markets often create entry barriers to limit competition (Caves & Porter, 1977),[11] higher concentration may be associated with lower competition. Consequently, as privatization reduces concentration, it may eventually improve overall industry competitiveness.

[9]However, the overall impact of rapid privatization on market concentration also depends on other factors, such as the institutional framework during the privatization process and the methods used. In Vietnam, for example, the post-2006 period of this study is characterized by a more developed institutional framework, making it likely that the effects of privatization will become more evident.

[10]The authors find that privatization is associated with higher price-cost margins, as the privatized firms try to reduce costs.

[11]This can result in higher prices, lower product quality, and reduced innovation (Caves & Porter, 1977), and eventually created monopolistic or oligopolistic market structures (Joskow & Schmalensee, 1995). At large, high market concentration can hinder the efficient allocation of resources in the market. New firms with innovative ideas or more efficient production methods may be prevented from entering, leading to a suboptimal allocation of resources (Caves & Porter, 1977). As a result, firms may have less incentive to innovate and improve their products or processes. This can stifle technological progress and hinder overall industry growth.

Third, these findings contribute to the ongoing debate on the optimal pace of economic transition (see, e.g., Rodrik, 1993; Stiglitz, 1999; Ellerman, 2003; Godoy and Stiglitz, 2005; Kantorowicz and Spruk, 2024). Recent empirical studies have increasingly indicated that the debate between rapid and gradual reform has largely been settled in favor of a rapid transition process. Countries that pursued faster reforms have generally outperformed their slower counterparts across economic, social, and institutional development indicators (Caves & Porter, 1977). However, such studies often do not delve into the underlying drivers of these outcomes, particularly the role of market concentration in specific sectors. For example, Havrylyshyn et al. (2016) highlight that slow economic reforms facilitated the emergence of an oligarchic class in post-communist societies. The authors support their argument by showing that the number of billionaires per million inhabitants is significantly higher in former Soviet Union countries (0.485) compared to Central and Eastern European countries (0.11). While this argument is informative, it remains insufficient, as it lacks robust statistical verification. The empirical results from this study confirmed the hypothesis proposed in Havrylyshyn et al. (2016). Rapid reforms, particularly faster privatization, help reduce market concentration. In contrast, slower reforms tend to increase industrial concentration, potentially leading to the formation of oligopolistic structures and a reduction in competition.

The rest of this chapter is structured as follows: Section 5.2 describes the data and how the study sample was constructed; Section 5.3 describes the construction of variables; Section 5.4 presents the findings; and finally, Section 5.5 concludes this chapter.

5.2 Data and sample construction

For this study, I also utilize the General Statistical Office of Vietnam's Enterprise Census. This survey is particularly advantageous because it covers all firms above a designated size. Consequently, it allows for the generalization of the relationship between privatization and competition. The study's extensive timeframe, spanning from 2006 to 2018, enables the observation of long-term shifts in market structures and industry characteristics. This extended period is

crucial, as industry-level relationships often require considerable time to manifest.

Since each firm is classified according to the 4-digit SIC industrial sub-sectors (VSIC, 2007), I aggregate individual firm-level data at this level to obtain concentration indices estimates and various industry level-characteristics. Disaggregating industries to this extent allows me to construct more explanatory variables than can be found in officially released statistics.[12] Moreover, it enables the differentiation of commodities that, although produced within the same broader industry, may not be close substitutes for the consumer (Hubbard, 2016).

In principle, there are 550 industries in the original dataset. However, sometimes there are no firms classified under the heading of a particular industry in a given year. The appearance and disappearance of some industries might be related to the restructuring of the economy. Since a model of the determinants of concentration cannot explain such phenomena, I exclude those industries that did not consistently appear throughout the period under investigation. I also excluded 3 industries for which the HHI takes the value of one for the same reason. In the end, my estimations are based on 364 industries, using the data from 2006 to 2018.

5.3 Variables

As the aim of this chapter is to analyze the relationship between concentration and privatization and the moderating role of speed (velocity) of privatization on this relationship, this section describes the main indicators I constructed to proxy these variables.

5.3.1 Market concentration

In this study, I want to see how privatization affects market structure and, consequently, competition. Although market concentration is not a perfect indicator of competition, it is a common approach in economics to consider that industry concentration is a useful proxy for market power (see, e.g., Bikker and

[12] As the classification system used a different system before (i.e., VSIC, 1993), it is difficult to extend the analysis to cover the period before 2007 in a consistent way.

Haaf, 2002; Philippon, 2019). Increasing concentration (or a market with fewer competitors) may increase market power, which in turn may result in higher corporate profits, higher prices, and a reduction in overall consumer welfare.[13] To measure the level of concentration within an industry, I use 2 concentration indicators, i.e. the Herfindahl-Hirschman Index (HHI) and the Four-firm concentration ratio (CR4). The HHI, better known as the Herfindahl index, is a measure of market concentration, and is used to determine market competitiveness, while the CR4 refers to the revenue share of the four largest firms. Both of them are among the most established and widely used indices for measuring absolute industrial concentration in empirical research due to the simplicity of their calculation (Brezina et al., 2016; Krivka, 2016; Naldi & Flamini, 2014).

5.3.1.1 Herfindahl-Hirschman Index

The HHI considers both the number of firms in a market and the level of concentration by incorporating the market share of each firm. The HHI for all firms in an industry is a convex function of the revenue shares of all firms in a given industry. It is calculated by summing the squares of the revenue shares of all entities in the industry. The formula is:

$$HHI = \sum_{i=1}^{N} S_i^2$$

where S_i is the market share of i-th firm in percentage terms, and N is the total number of firms.

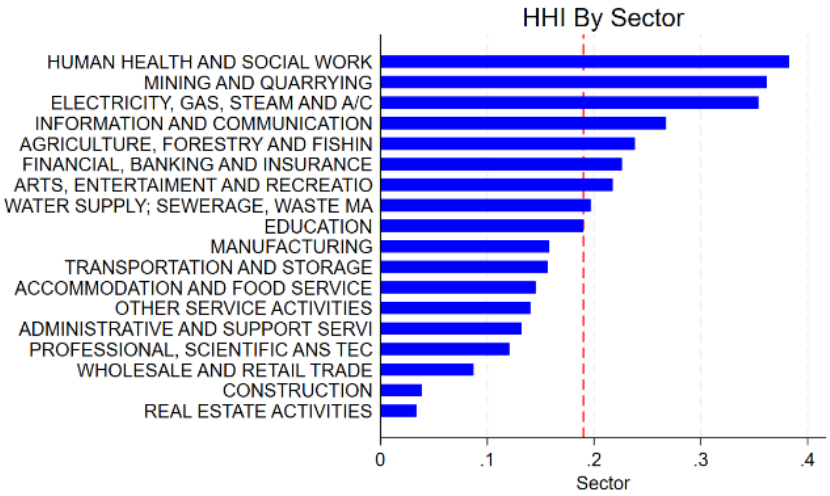
The HHI assigns significantly more weights to companies with large market shares compared to those with smaller shares due to the squaring of market shares in its calculation. This aspect of the HHI aligns with the economic theory that higher output concentration within a few firms (indicated by a high HHI) is likely to result in weaker competition in the market, assuming other factors remain constant. Conversely, lower concentration, which suggests a market with many firms holding small shares (indicated by a low HHI), tends to promote robust competition (Rhoades, 1993).

[13] High concentration does not always translate directly to market power because in some industries, even with high concentration, firms may still engage competition, limiting their ability to raise prices (Philippon, 2019).

Figure 5.1 shows HHI across Vietnam's economic sector (aggregated at 1-digit VSIC 2007 level). A market is concentrated when the HHI value is greater than 0.1 (Dougherty et al., 2007). As shown in the Figure, the red line is the mean value of HHI across all sectors in Vietnam. This value is 0.19, which indicates that on average, Vietnamese markets are moderately concentrated.[14] However, this average could mask a wide range of scenarios from highly competitive to monopolistic markets: while some industries may be competitive, others could be dominated by a few firms. Indeed, Figure 5.1 reveals significant market concentration in the Human Health and Social Work, Mining and Quarrying, Information and Communication, and Electricity, Gas, Steam, and Air Conditioning Supply sectors, indicating dominance by a few firms. Moderate concentration is observed in sectors like Agriculture, Financial Services, and Transportation. In contrast, sectors such as Manufacturing, Administrative and Support Services, and Accommodation exhibit lower concentration, suggesting more competitive markets. The least concentrated sectors, like Construction and Real Estate Activities, are highly competitive with many firms and low market concentration.

[14]The absolute values of the HHI index in this study should be interpreted with caution, as they were calculated using data from the GSO's Enterprise Survey, which excludes firms below a certain size threshold. Consequently, this likely biases the HHI estimates upwards. However, since the study's primary objective is to explore the relationship between privatization and market concentration, this bias is acceptable for the analysis. Furthermore, as previously mentioned, my CR4 estimates are expected to be more reliable, allowing for a comparison between the results based on HHI and CR4 measures.

Figure 5.1: Herfindahl-Hirschman Index (HHI) by Sector.



*Note: The Herfindahl-Hirschman Index (HHI) measures the level of market concentration. Higher values indicate more concentration within a sector. The red dashed line represents the average HHI across sectors. Data aggregated at sector level (VSIC, 2007).

One problem with calculating HHI is that it is often impossible to acquire the revenue share of all firms in the market. Even though the GSO takes the census of all firms in Vietnam, it is likely that a small number of firms are missing from the survey. We do not know the exact contribution of the smaller enterprises to the value of the HHI, but it would be at least the sum of their squared market shares with the assumption that they are equal (minimum HHI). In concentrated markets, the minimum HHI would not diverge significantly from the actual value of the HHI, since the strongest impact on its value comes from the largest players while the sales volumes of smaller enterprises would not significantly affect its value (Krivka, 2016). However, in a competitive market, the value minimum HHI and the actual HHI can diverge significantly. In any case, as the survey is designed only to include firms that are above a certain threshold, the HHI can be biased upward. Therefore, I use another concentration indicator to overcome this limitation of HHI.

5.3.1.2 Four-firm Concentration Ratio

Another important index for measuring industrial concentration before the advent of the HHI is the CR4 index (Naldi & Flamini, 2014). CR4 is the total (cumulative) percentage of total industry output accounted for by the 4 largest companies in the industry (the market share of the four largest firms in the market):

$$CR_4 = \sum_{i=1}^{4} S_i$$

where S_i is the market share of i-th largest firm in the market.

The main advantage of the CR4 is that it does not consider the whole market (as in the case of HHI), but just the top 4 firms. As a result, the CR4 is simple to compute and interpret. However, by considering only the top four firms, it does not provide a complete picture of market concentration or competition if many smaller firms exist. In this sense, the HHI provides a more comprehensive view of market concentration. Considering the widespread use of both the HHI and CR4 indices, it is important to determine whether they yield similar conclusions, allowing either to serve as a measure of market concentration, or if they offer complementary perspectives on the issue. Like the HHI, the higher the CR4, the higher the concentration of the market in the hands of a few companies (an oligopoly).

5.3.2 Privatization Propensity

According to the World Bank (1995, p. 15), privatization should be interpreted broadly to include more than just divestiture in the sense of selling public enterprises to the private sector. Thus, Sachs (1992) identifies two distinct forms of privatization: "bottom-up" and "top-down". The former involves the emergence and growth of new private enterprises within the context of liberalization and stabilization policies. The latter refers to the transfer of state-owned assets to private ownership. In this study, I adopt the concept of "bottom-up" privatization, which is commonly approximated as the expansion of the private sector in relation to the state sector (Myant & Drahokoupil, 2010, p. 249).

It has long been observed that although many firms are legally privatized, the actual control or ownership might still lie within the sphere of influence of the state. Indeed, some SOEs in Vietnam were operating as if they had been privatized even before formal processes were initiated (Fforde, 2021; Fforde & Mazyrin, 2004; Gainsborough, 2002). The formal transfer of ownership therefore serves to reveal the actual owners of these firms, who may have been the de facto owners prior to privatization. In these cases, the State requires these new owners to report to them consistently (Gainsborough, 2009), or the same management team continues to run the company post-privatization (Radić et al., 2021). This leads to a situation where privatization could be associated with an increased level of state control (Gainsborough, 2002, 2009).[15] Moreover, in Vietnam, privatization has occurred during its transition to market economies. This makes it difficult to disentangle the pure effect of ownership changes from the impact of the evolution of market structure (Cavaliere & Scabrosetti, 2008). Thus, while this traditional definition of privatization accurately captures the process at the firm level, which is essential for understanding the impacts on individual enterprises, it cannot be used to capture the effects of privatization at industry level.[16]

Hence, I adopted a novel definition of privatization. Instead of simply counting the number of privatized firms in an industry, I define "privatization propensity" as the proportion of assets in an industry that is produced by firms owned and/or controlled by the non-state firms. This measure provides a clear picture of the extent to which the State has retreated from economic activity. Specifically, this variable is constructed as follows:

$$P_{rt} = 1 - \frac{\sum_{i=1}^{n} S_i^* A_i}{\sum_{i=1}^{n} A_i}$$

where S_i is an indicator for the percentage of assets under state control for firm i; A_i is the total assets owned by firm i; n is the total number of firms. Therefore,

[15]The result of this phenomena is that, although many firms are legally privatized, the actual control or ownership might still lie within the sphere of influence of the state through its regulatory bodies or other informal channels (Gainsborough, 2009).

[16]In such cases, privatization at firm-level is sometimes superficial and does not result in a genuine reduction of state control. This leads to the idea that privatization, in a broader sense, should be measured by the actual decline in the influence of the state over economic activities.

the numerator $\sum_{i=1}^{n} S_i^* A_i$ would represent the total assets under state control for all firms in industry r with n firms, as $S_i^* A_i$ is the contribution of each firm i to the total state-controlled assets. In the meantime, the denominator of the fraction $\sum_{i=1}^{n} A_i$ would represent the assets of all firms in industry r. The ratio thus represents the proportion of the total assets owned by state-controlled firms, and by subtracting the ratio of state-controlled assets from 1, the privatization propensity indicator P_{rt} is obtained.

This indicator reflects the extent to which assets are privately controlled as opposed to state-controlled in a specific industry at any given time. A higher P_{rt} value indicates a greater extent of privatization, meaning a larger proportion of assets are privately controlled. Conversely, a lower P_{rt}value indicates more state control over assets within the industry.[17]

Appendix Figures 5.2 and 5.3 show the potential relationship between privatization propensity and market concentration. In both cases, the relationship between privatization propensity and market concentration is negative (HHI in Appendix Figure 5.2 and CR4 in Appendix Figure 5.3). This suggests that increased privatization is associated with decreased market concentration.

Before moving to the next section, I discuss the change in privatization propensity across economic sectors. Appendix Figure 5.1 presents the change in privatization propensity in 17 sectors between 2006 and 2018. Privatization propensity increased in most sectors. In some industries, the privatization propensity remained largely unchanged (e.g., human health, real estate activities, education). These are mostly in services and were almost privately controlled over the whole period. Interestingly, electricity was high in 2006 but started to decline afterwards. This is consistent with a process of establishing state conglomerates in Vietnam that reduced the size of the non-state sector and increased the size of the state sector in this sector. Some sectors, like mining and quarrying, saw little increase in private sector participation, as these are often strategic industries, and the State wants to maintain control over them.

[17]Other studies also defined "private controlled" and "state controlled" this way. For example, Hubbard (2016) defines an industry as "state dominated" if SOEs control the majority of assets in the industry (more than 50%). This measure proxies the government's intent to control production and to this extent they reflect what the government believes are strategically unimportant industries (Amess & Roberts, 2007). Likewise, in cross-country studies World Bank (1995, p. 68), the magnitude of privatization has been measured as the changes in the share of SOEs relative to GDP.

Lastly, the fastest-growing sectors were: agriculture, forestry and fishing; transportation and storage; and water supply & waste management.

5.3.3 Privatization Velocity

For the sake of comparison and to ensure the robustness of my results, I employed two different methods to define privatization velocity. The first method involves regressing privatization propensity on time, providing a time-dependent rate of privatization. The second method calculates the number of years it takes for an industry to achieve 90% private ownership, offering a more direct measurement of the velocity at which privatization occurs.

5.3.3.1 Privatization Velocity I

For each industry, a linear regression is performed with Privatization Propensity as the dependent variable and time (year) as the independent variable. Then, the slope coefficient should indicate how fast the privatization propensity changes over time within each industry. The interpretation is intuitive: a positive slope suggests an increasing trend in privatization, while a negative slope indicates a decreasing trend, and the magnitude indicates the rate of change. This approach helps to quantify the speed of privatization for each industry, yet it assumes a linear relationship between Privatization Propensity and time. If the relationship is non-linear, this method might oversimplify the actual trend and, therefore, produce biased estimates.

5.3.3.2 Privatization Velocity II

As Privatization Velocity I may suffer from bias due to the assumption of linearity, I constructed Privatization Velocity II using an alternative procedure. This indicator measures the number of years it takes for an industry to achieve almost total privatization. Here, I assumed that reaching 90% privatization propensity qualifies an industry as "almost privatized". The observed period spans from 2006 to 2018. Therefore, I calculate the time it took for industries to reach this 90% threshold in privatization propensity within this timeframe. In doing so, two specific cases were identified: (1) some industries already had more than 90% privatization propensity in 2006, and (2) some industries did

not achieve 90% privatization by the end of our observation window. For industries already above 90% privatized in 2006, I set the number of years to achieve total privatization (100%) to be 0. For those industries that never reached 90% threshold during the observed period, I imputed a value of 15 years for that industry to achieve almost full privatization.[18] This approach adjusts for industries that were already highly privatized at the start of the observation period and for those that may not have reached the 90% threshold by the end of the period.

5.3.4 Control variables

In this section, I introduce control variables used in this study and explain the reason why I included them as control variables in the regression analysis. I also proposed the potential relationships between these control variables and market concentration.

A. Average Firm Size

In this study, the average firm size in an industry is computed as the log of mean employment at the firm level.[19] Theoretically, the average firm size in a sector can be positively correlated with market concentration. Firms make investment decisions based on speculations about uncertain future profits, larger firms often benefit from economies of scale, reducing average production costs and thus increasing their market share (Caves & Porter, 1977). Additionally, high entry barriers make it difficult for smaller firms to participate and compete. Meanwhile, mergers and acquisitions also lead to increased firm size over time. The market power of large firms allows them to set higher prices and invest heavily in R&D, maintaining and expanding their market share, thus increasing market concentration. Therefore, average firm size may have a positive relationship with market concentration, holding other variables constant.

[18] Since this approach of assuming 15 years for an industry to achieve near-complete privatization is somewhat "ad hoc," I repeated the analysis excluding those cases (which represent a total of 3.75% of observations), and the results remained robust (see Appendix Table 5.2).

[19] When I aggregate the data at the sector level (using VSIC, 2007), as shown in Appendix Figure 5.4, the average firm size in a sector is positively correlated with market concentration (measured by the HHI index).

B. Industry Size

In this study, the size of the industry is measured as the total revenues generated by all firms in the industry. Larger industries often accommodate more firms due to greater total demand. Consequently, they tend to have lower concentration ratios because more firms can operate and compete effectively within the industry. This greater capacity for accommodating firms reduces the market share of individual companies, fostering a more competitive environment. Additionally, the size of the industry can lead to innovation and varied product offerings, further lowering concentration and intensifying competition. Thus, industry size can be hypothesized to have a negative effect on market concentration because a larger market can support more firms (Amess & Roberts, 2007). [20]

Industry size can also positively correlate with market concentration due to several factors. As industries grow, leading firms can leverage economies of scale, erect higher barriers to entry, and benefit from network effects, all of which can increase their market dominance. Larger industries also tend to generate more profits, providing successful companies with resources to expand or acquire competitors. Additionally, the regulatory environment in bigger industries may inadvertently favor larger firms that can better manage compliance costs. These dynamics can collectively contribute to increased market concentration as an industry expands, although the relationship is not universal and can vary depending on specific industry characteristics and market conditions.

C. Industry Profitability

I measure industry-level profitability with ROS (returns on sales) (by taking the average of all firms in the same industry).[21] Industries with high profitability may have an incentive to maintain them by using strategic decisions and tactics to raise entry barriers and keep potential entrants out (Caves &

[20] This negative relationship between sector size and market concentration can be observed in Appendix Figure 5.5.

[21] As shown in Appendix Figure 5.6, there might be a positive relationship between sector profitability and concentration.

Porter, 1977; Demsetz, 1982). Highly profitable firms are likely to reinvest their profits into research and development, leading to innovations that can enhance their competitive edge. This may temporarily increase market concentration if innovation leads to dominant products or services (Kamien, 1982). Profitable firms may also spend more on marketing and branding to solidify their market position, potentially raising barriers for new entrants and sustaining high concentration ratios (Sutton, 1991).

D. Fixed Asset Ratio

Finally, I construct a fixed asset ratio as the proportion of average fixed assets for a firm in an industry to the average total asset of a typical firm in that industry.[22] Some sectors might be dominated by only a few firms due to the high initial investment costs required to enter those industries (e.g., utilities, resources extraction). By including fixed assets ratio in my regression model, I control the capital intensity and fixed cost nature of the industries, which can be a major factor driving both high market concentration and state sector participation (natural monopoly cases). On the other hand, some "niche" industries may be too small to attract multiple players, and therefore they are highly concentrated (Hubbard, 2016).

5.4 Empirical Results

5.4.1 Descriptive Statistics

Table 5.1 provides a comprehensive overview of key indicators used in this study. The HHI with a mean of 1,717.7, suggests moderate market concentration on average.[23] The Four-firm Concentration Ratio, averaging 52.27%, further supports the notion of moderately concentrated markets.[24] Privatization indicators are particularly noteworthy. The high mean Privatization Propensity

[22]Fixed asset ratio variable is hypothesized to have a positive effect on market concentration (as shown in Appendix Figure 5.7).

[23]A market is considered to be competitive when $HHI \leq 0.1$, moderately concentrated when $0.1 < HHI \leq 0.18$, and highly concentrated when $HHI > 0.18$ (Hubbard, 2016; Krivka, 2016).

[24]A market is generally considered "loose oligopoly or Monopolistic Competition" if the CR4 is in the range between 40% to 60% (Naldi & Flamini, 2014).

(87.86%) implies a strong trend towards private ownership across the sample. Privatization Velocity I, representing the rate of change in privatization, shows a positive mean (0.01), indicating an overall increase in privatization over time. Privatization Velocity II, measuring the time to reach 90% private ownership, averages 3 years, suggesting relatively rapid transitions in many cases. Notably, the mean industry profitability is negative (-3.25%), which indicates that, on average, companies in Vietnam are unprofitable. The Fixed Asset Ratio, averaging 20.5%, suggests that about one fifth of the firm's total assets are fixed assets.

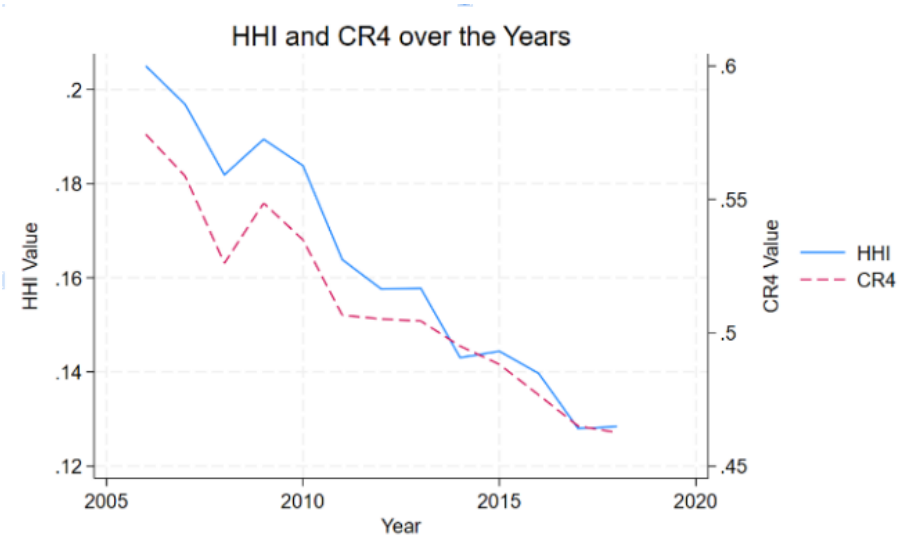
Table 5.1: Summary Statistics of Key Indicators

	No. of obs.	**Mean**	**SD**	**Min**	**Max**
Herfindahl-Hirschman Index	4717	1717.75	2031.01	9.12	10000
Four-firm Concentration Ratio	4716	52.28	27.71	0.89	100
Privatization Propensity	4717	87.86	23.20	0.05	100
Privatization Velocity I	4717	0.01	0.02	-0.08	0.10
Privatization Velocity II	4717	3.09	4.51	0	15
Average Firm Size	4717	3.39	1.23	0	9.12
Industry Size	4717	14.98	2.32	4.31	26.24
Industry Profitability	4715	-3.25	2.96	-13.51	11.36
Fixed Asset Ratio	4717	20.47	14.51	0	99.76

Notes: Privatization Velocity I: slope coefficient of time on Privatization Propensity; Privatization Velocity II: number of years required for an industry (4-digit VSIC level) to reach 90% private ownership; Average Firm Size: natural logarithm of mean firm-level employment in each industry; Industry Size: natural logarithm of total industry revenues; Industry Profitability: inverse hyperbolic sine transformation of industry-level return on sales; Fixed Asset Ratio: fixed assets divided by total assets.

Figure 5.2 depicts the evolution of industrial concentration in Vietnam from 2006 to 2018, using the HHI and CR4, both rescaled to a 0-1 range. The graph reveals a clear downward trend for both measures, indicating a general decrease in industrial concentration over the period. HHI shows a smoother decline, starting around 0.21 and ending near 0.13, while CR4 exhibits more volatility, especially in earlier years, beginning at about 0.57 and converging with HHI around 0.46 by 2018. The declining trends imply that Vietnam's industrial sector became less concentrated during 2006-2018.

Figure 5.2: The evolution of industrial concentration in Vietnam (2006-2018)



*Note: The Herfindahl-Hirschman Index (HHI) and Four-Firm Concentration Ratio (CR4) have been normalized to a scale of 0 to 1, with 1 representing the maximum level of market concentration.

Before proceeding to regression analysis, the relationships between variables in this study are examined. Appendix Table 5.1 shows the correlation matrix between variables used in this study. A strong positive correlation (0.836) exists between HHI and CR4, indicating a close relationship between these industry concentration metrics. Average Firm Size shows positive correlations with HHI, CR4, Profitability, and Fixed Asset Ratio, but a negative correlation with Privatization Propensity. Industry Size is negatively correlated with market concentration (both HHI and CR4), and also Privatization Propensity. Profitability has weak correlations with most variables, showing negative correlations with privatization propensities. The Fixed Asset Ratio is weakly correlated with other variables and negatively associated with privatization propensity. These relationships suggest that privatization is more likely to occur in industries characterized by smaller firms, smaller overall industry size, lower profitability, and lower fixed asset ratios. [25]

[25]These results actually align with the Vietnamese government's strategy of avoiding privatization in key strategic sectors, some of which are dominated by large SOEs.

5.4.2 Regression Analysis

Table 5.2 presents regression results examining the impact of privatization propensity and other control variables on the HHI index. The coefficients are negative across models (1) and (2), suggesting that increased privatization propensity is associated with decreased HHI values. However, the coefficients are insignificant in Models (3), (4), and (5). Other control variables, including average firm size, industry profitability, and fixed asset ratio, do not exhibit a significant impact on HHI. The size of the industry, nonetheless, has a significant positive impact on HHI.

Table 5.3 presents regression analyses examining the impact of privatization propensity on the CR4. Across five models with increasing control variables, privatization propensity consistently shows a negative and statistically significant effect on CR4, suggesting that increased privatization is associated with decreased market concentration. Average firm size and industry size both demonstrate positive and significant effects, indicating that industries with larger firms and size tend to have higher concentration ratios. Industry profitability and fixed asset ratio show negative but statistically insignificant effects in the later models. Compared to the previous analysis on HHI, the effects of privatization are more pronounced and consistent for CR4, while industry size remains a strong positive predictor for both market concentration measures. This indicates that increased private sector participation, especially in industries with high barriers to entry, could lead to a few dominant firms controlling a significant portion of the market, characteristic of oligopolies. [26]

Table 5.4 shows the moderating role of privatization velocity I (rate of change) on HHI and privatization propensity. The key finding is the consistently significant negative interaction between privatization propensity and velocity ($p < 0.01$), suggesting privatization velocity moderates the effect of privatization propensity on industrial concentration. In other words, as privatization

[26] However, it is important to acknowledge the potential for reverse causality. For instance, Hubbard (2016) demonstrates that the concentrated sectors of the Chinese economy are predominantly owned by central SOEs. This concentration suggests that privatizing these SOEs could be more challenging, resulting in a slow privatization process. Consequently, the speed of privatization may stem from the initial market concentration rather than the other way around. Given that the relationship can operate in both directions, this complexity opens up new avenues for future research.

velocity increases, the effect of privatization propensity on HHI becomes more negative. Average Firm Size and Industry size both exhibit a robust positive association with HHI, while industry profitability and fixed asset ratio show insignificant effects.

Table 5.5 assesses the moderating role of privatization velocity I on CR4 and privatization propensity. The key finding here, again, is the consistently significant negative interaction between privatization propensity and velocity ($p < 0.01$). This suggests that as privatization velocity increases, the negative effect of privatization propensity on market concentration becomes stronger.

Tables 5.6 and 5.7 repeat the exercise in Tables 5.4 and 5.5 but use a different indicator for privatization velocity. In these two tables, privatization velocity is defined as the number of years it takes for an industry (4-digit VSIC level) to reach 90% private ownership. In this case, since a higher number (more years) indicates a slower process of privatization, the coefficient on the interaction term between Privatization Propensity and Velocity II should have an opposite sign compared to the one using Privatization Velocity I. As shown in both tables, there is a consistently significant positive interaction between privatization propensity and privatization velocity II. This, again, confirms the finding earlier that the slower the process, the lower the impact of privatization in terms of reducing concentration. The results are robust with the inclusion of different control variables, and for both CR4 and HHI as dependent variables.

Figure 5.3 further confirms the moderating impact of privatization velocity on market concentration (measured by HHI). Fast privatization (less than 5 years to reach 90% private ownership) leads to a significant decrease in HHI values. Medium-speed privatization (5 to 10 years) shows a slight decrease, while slow privatization (more than 10 years) even results in a slight increase in HHI, indicating higher market concentration.

Overall, the results strongly suggest that the faster the process of privatization, the additional the effect of privatization is in terms of reducing industrial concentration. In a faster privatization process, the market would likely see a more rapid entry of multiple competitors, which could prevent any single entity from dominating. As a result, firms would have less time to consolidate resources, build barriers to entry, or engage in practices that might otherwise

lead to a dominant market position.

Table 5.2: Privatization propensity on HHI

	Dependent variable: HHI				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-0.0595**	-0.0499**	-0.0310	-0.0307	-0.0314
	(0.0240)	(0.0232)	(0.0202)	(0.0201)	(0.0199)
Average Firm Size		0.0334***	0.00402	0.00410	0.00488
		(0.0101)	(0.0130)	(0.0130)	(0.0130)
Industry Size			0.0480***	0.0480***	0.0489***
			(0.00934)	(0.00933)	(0.00921)
Industry Profitability				-0.000834*	-0.000802*
				(0.000476)	(0.000476)
Fixed Asset Ratio					-0.000422*
					(0.000238)
Constant	0.0891***	-0.0104	-0.796***	-0.800***	-0.810***
	(0.0216)	(0.0361)	(0.151)	(0.151)	(0.150)
N	4176	4176	4175	4175	4175

**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$).

Table 5.3: Privatization Propensity on CR4

	Dependent variable: CR4				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-0.136***	-0.112**	-0.0897*	-0.0891*	-0.0898*
	(0.0514)	(0.0497)	(0.0465)	(0.0463)	(0.0461)
Average Firm Size		0.0820***	0.0471**	0.0472**	0.0479**
		(0.0177)	(0.0204)	(0.0204)	(0.0204)
Industry Size			0.0572***	0.0572***	0.0581***
			(0.0126)	(0.0126)	(0.0125)
Industry Profitability				-0.00144	-0.00141
				(0.00125)	(0.00125)
Fixed Asset Ratio					-0.000405
					(0.000380)
Constant	0.338***	0.0932	-0.843***	-0.850***	-0.860***
	(0.0462)	(0.0726)	(0.224)	(0.224)	(0.224)
N	4175	4175	4174	4174	4174

**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$)

Table 5.4: The moderating role of privatization velocity I on HHI and privatization propensity

	Dependent variable: HHI				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-0.0132	-0.0125	0.000489	0.000931	0.000300
	(0.0334)	(0.0323)	(0.0257)	(0.0257)	(0.0255)
Privatization Propensity *	-2.183***	-1.797**	-1.522***	-1.527***	-1.531***
Privatization Velocity I	(0.768)	(0.734)	(0.583)	(0.588)	(0.589)
Average Firm Size		0.0308***	0.00210	0.00217	0.00295
		(0.0100)	(0.0130)	(0.0130)	(0.0130)
Industry Size			0.0477***	0.0477***	0.0485***
			(0.00929)	(0.00928)	(0.00916)
Industry Profitability				-0.000845*	-0.000813*
				(0.000488)	(0.000489)
Fixed Asset Ratio					-0.000424*
					(0.000236)
Constant	0.0648**	-0.0229	-0.801***	-0.805***	-0.815***
	(0.0255)	(0.0369)	(0.149)	(0.149)	(0.148)
N	4176	4176	4175	4175	4175

**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$). Privatization Velocity I = slope coefficient of time on Privatization Propensity

Table 5.5: The moderating role of more privatization velocity I on CR4 and privatization propensity

	Dependent variable: CR4				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-0.0398	-0.0382	-0.0228	-0.0221	-0.0227
	(0.0714)	(0.0679)	(0.0596)	(0.0595)	(0.0593)
Privatization Propensity *	-4.518***	-3.549**	-3.222***	-3.230***	-3.234***
Privatization Velocity I	(1.546)	(1.424)	(1.199)	(1.198)	(1.201)
Average Firm Size		0.0770***	0.0430**	0.0431**	0.0438**
		(0.0172)	(0.0202)	(0.0202)	(0.0203)
Industry Size			0.0565***	0.0565***	0.0573***
			(0.0124)	(0.0123)	(0.0122)
Industry Profitability				-0.00146	-0.00143
				(0.00128)	(0.00128)
Fixed Asset Ratio					-0.000408
					(0.000377)
Constant	0.287***	0.0684	-0.854***	-0.860***	-0.870***
	(0.0543)	(0.0745)	(0.218)	(0.218)	(0.218)
N	4175	4175	4174	4174	4174

**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$). Privatization Velocity I = slope coefficient of time on Privatization Propensity

Table 5.6: The moderating role of privatization velocity II on HHI and privatization propensity

	Dependent variable: HHI				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-1.671*	-1.840**	-1.849**	-1.849**	-1.828**
	(0.902)	(0.860)	(0.837)	(0.837)	(0.826)
Privatization Propensity *	0.519	0.698**	0.766**	0.766**	0.753**
Privatization Velocity II	(0.332)	(0.321)	(0.323)	(0.323)	(0.313)
Average Firm Size		0.673***	0.479***	0.479***	0.486***
		(0.138)	(0.156)	(0.156)	(0.155)
Industry Size			0.320***	0.320***	0.328***
			(0.118)	(0.118)	(0.118)
Industry Profitability				-0.00442	-0.00413
				(0.0123)	(0.0123)
Fixed Asset Ratio					-0.00369
					(0.00304)
Constant	5.716***	3.802***	-1.408	-1.428	-1.520
	(0.543)	(0.737)	(2.308)	(2.317)	(2.312)
N	4176	4176	4175	4175	4175

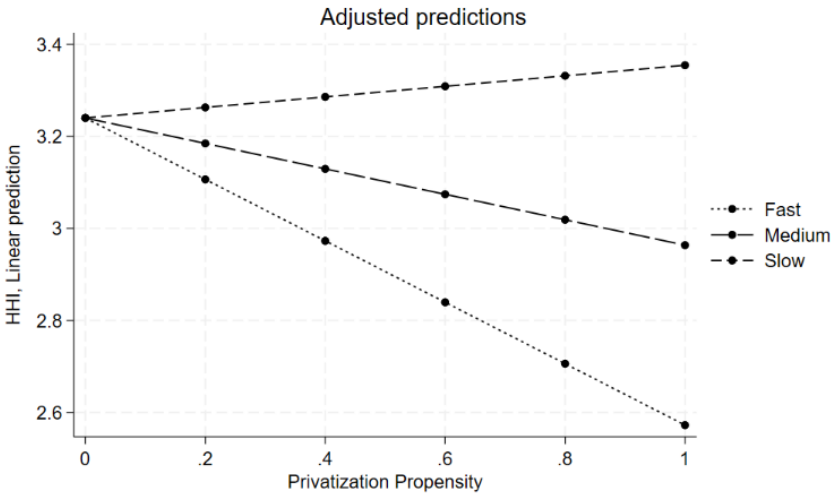
**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$). Privatization Velocity II = number of years it takes for an industry (4-digit VSIC level) to reach 90% private ownership. HHI is log transformed.

Table 5.7: The moderating role of privatization velocity II on CR4 and privatization propensity

	Dependent variable: CR4				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-0.972**	-1.057**	-1.061**	-1.061**	-1.059**
	(0.447)	(0.425)	(0.416)	(0.416)	(0.413)
Privatization Propensity *	0.275	0.365**	0.392**	0.392**	0.391**
Privatization Velocity II	(0.181)	(0.175)	(0.173)	(0.173)	(0.171)
Average Firm Size		0.335***	0.256***	0.256***	0.257***
		(0.0661)	(0.0759)	(0.0759)	(0.0760)
Industry Size			0.129**	0.129**	0.130**
			(0.0519)	(0.0519)	(0.0520)
Industry Profitability				-0.00103	-0.001000
				(0.00659)	(0.00659)
Fixed Asset Ratio					-0.000344
					(0.00159)
Constant	3.313***	2.362***	0.255	0.251	0.242
	(0.249)	(0.338)	(0.995)	(1.000)	(1.001)
N	4175	4175	4174	4174	4174

**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$). Privatization Velocity II = number of years it takes for an industry (4-digit VSIC level) to reach 90% private ownership. CR4 is log transformed.

Figure 5.3: The moderating effect of privatization velocity on HHI.



Note: Privatization velocity categories are defined as follows: Fast: < 5 years to reach 90% private ownership; Medium: ≥ 5 years and ≤ 10 years to reach 90% private ownership; Slow: > 10 years to reach 90% private ownership.

5.5 Conclusion

The purpose of this study is to examine the impact of privatization on industrial concentration in Vietnam's economy during the period 2006-2018 and to investigate how the speed of privatization affects this relationship. To this end, I aggregate GSO's firm-level data at 4-digit SIC industrial sub-sectors to obtain estimates and various industry-level characteristics. My outcome variables include HHI and CR4. My main explanatory variable is privatization propensity (measured as the proportion of assets in an industry owned by non-state firms) and my moderating variable is privatization velocity (measured as the rate of change in privatization propensity and the number of years required for an industry to reach almost full privatization).

The descriptive results suggest that Vietnam's industries generally became less concentrated during the 2006-2018 period. Analysis of correlations between variables indicates that privatization is more likely to occur in industries characterized by smaller firms, smaller overall industry size, lower profitability, and lower fixed asset ratios. The results suggest that privatization propensity

consistently shows a negative and statistically significant effect on industrial concentration. This implies that privatization may reduce concentration in certain industries. As pointed out by a study by the World Bank (1995, p. 70), by reducing the size of the SOE sector, the overall efficiency of the SOE sector would improve, since managerial skills and competition will be concentrated on those that remain. Moreover, in all specifications, industry size (measured as revenues generated by all firms in an industry) is positively associated with higher concentration. This suggests that as industries grow, leading firms might leverage economies of scale, erect higher entry barriers, and benefit from network effects, all of which can increase their market dominance. Thus, increased private sector participation and ind ustry size could lead to high entry barriers and, consequently, a few dominant firms controlling a significant portion of the market—characteristics typical of oligopolies.

The results further confirm that a slower privatization process has a reduced impact on decreasing concentration, or in other words, a faster privatization process has a greater effect on reducing industrial concentration. These findings are robust across different control variables and for both CR4 and HHI as dependent variables. The results facilitate several interesting discussions about the speed of privatization. *First*, faster privatization could have allowed quicker entry of new private firms into a previously concentrated market. This influx of new firms can dramatically increase competition, effectively diluting the market power of former state-owned monopolies or oligopolies. The swift introduction of multiple competitors can lead to a more diverse and dynamic market structure, fostering innovation, technology and efficiency. As in the case of a transition economy, since many private businesses are too small to compete with large SOEs, the private sector must "grow very rapidly indeed to begin to overshadow the huge SOE sector" (World Bank, 1995, p. 75).

Second, when privatization occurs rapidly, the market undergoes a swift transition period. This accelerated adjustment can prevent any single entity, whether a newly privatized firm or an existing player, from consolidating excessive market power. The rapid shift creates a fluid environment where market shares are more contestable, promoting a more balanced distribution of market influence. *Third*, rapid privatization often involves transforming SOEs into

separate private firms rather than consolidating them. This approach clearly reduces the risk of forming large state-owned conglomerates that could dominate the market. Instead, it promotes a more fragmented and competitive industry structure. *Finally*, in contexts where institutional frameworks are relatively mature (as in the case of Vietnam from 2006 onwards), a faster privatization process can further limit the window for political maneuvering and rent-seeking behavior. This can result in a more market-driven outcome, where firms succeed based on their efficiency and competitiveness rather than political connections. Overall, these results suggest that, from 2006 onwards, Vietnam's institutional frameworks had developed sufficiently to enable rapid privatization to reduce market concentration at industry level.

As a final remark, it is important to note that low market concentration, while often indicative of high competition, is not inherently desirable for all industries. In industries with public goods characteristics, for instance, the substitution of public enterprises with private ones does not necessarily improve efficiency. It must then follow that, while privatization might have successfully deconcentrated market power in some previously state-dominated industries, they do not guarantee improved industrial performance. Moreover, some industries are prone to oligopoly due to high sunk costs (Sutton, 1991). In such cases, heavy investments in research and development activities drive technological innovations that, in turn, reduce costs and increase productivity, even in the absence of intense competition. At this point, it is important to recall the Schumpeterian Tradeoff hypothesis: "A market structure involving large firms with a considerable degree of market power is the price that society must pay for rapid technological advance" (Nelson & Winter, 1982).

While this study provides valuable insights into the effects of privatization in Vietnam, it's important to acknowledge its limitations. The results from a single country cannot be directly applicable to other countries (Harper, 2002), as institutional contexts, initial conditions, and policy implementations vary across nations (Godoy & Stiglitz, 2005). Yet, this limitation does not diminish the study's value. The methodology employed here, analyzing changes in privatization across industries and controlling for industry-specific factors within a single country, provides a robust framework for isolating its effects from country-level

factors that typically confound cross-national studies on the economic effects of privatization at macro-level. Given that cross-country comparisons of privatization outcomes, such as between China and Russia, often obscure the real issues in the privatization debate, one promising avenue for privatization research is to analyze cross-industry variations within a narrow context, i.e., a single country or an administrative unit. This approach helps identify the optimal pace of privatization and has far-reaching implications, not only for former communist economies but also for state-owned industries in industrialized economies that are currently shielded from competition and reliant on state subsidies.

Appendix Tables

Table 5.1: Matrix of Correlations

Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
(1) HHI	1.000								
(2) CR4	0.836	1.000							
(3) Privatization Propensity	-0.200	-0.168	1.000						
(4) Privatization Velocity I	-0.017	0.014	-0.353	1.000					
(5) Privatization Velocity II	-0.031	-0.048	-0.612	0.547	1.000				
(6) Average Firm Size	0.136	0.178	-0.351	0.126	0.245	1.000			
(7) Industry Size	-0.402	-0.527	-0.181	0.089	0.296	0.326	1.000		
(8) Industry Profitability	0.118	0.110	-0.174	0.027	0.080	0.111	-0.106	1.000	
(9) Fixed Asset Ratio	0.028	0.042	-0.117	0.084	0.108	0.392	0.074	0.135	1.000

Notes: Privatization Velocity I = slope coefficient of time on Privatization Propensity; Privatization Velocity II = number of years it takes for an industry (4-digit VSIC level) to reach 90% private ownership; Average Firm Size = log of mean employment at firm-level; Industry Size = log of total revenues generated by all firms in an industry; Industry Profitability = return on sales (Inverse hyperbolic sine transformation) of an industry; Fixed Asset Ratio = Fixed assets/Total assets.

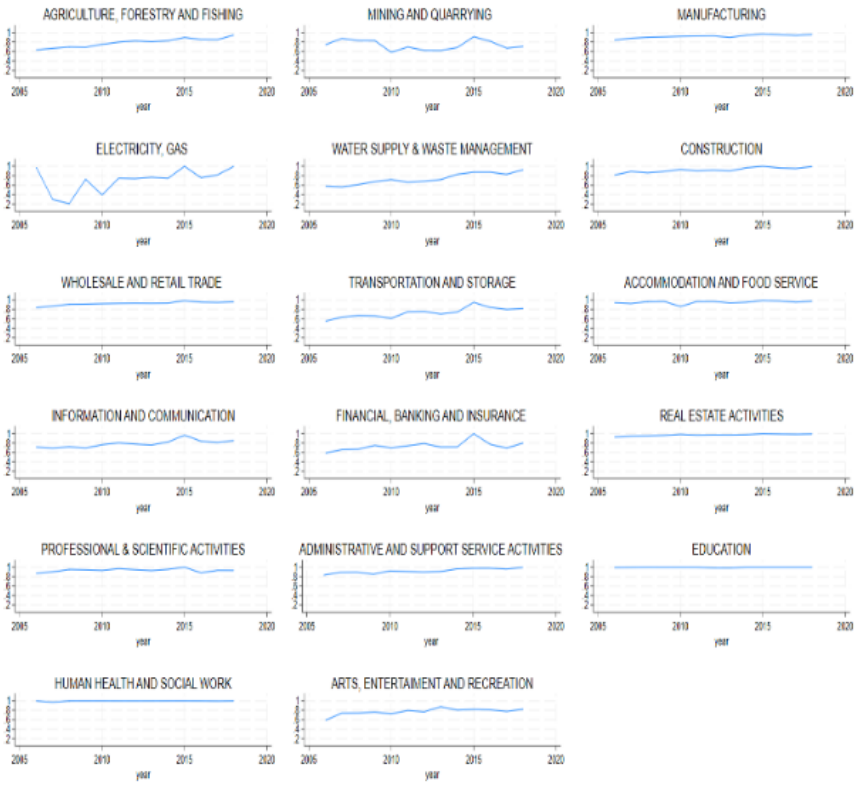
Table 5.2: The moderating role of privatization velocity II on HHI and privatization propensity (dropping firms that already achieved >90% privatization propensity in 2006)

	Dependent variable: HHI				
	(1)	(2)	(3)	(4)	(5)
Privatization Propensity	-1.402*	-1.412*	-1.417**	-1.422**	-1.421**
	(0.760)	(0.727)	(0.677)	(0.676)	(0.677)
Privatization Propensity *	0.370	0.456*	0.535**	0.539**	0.538**
Privatization Velocity II	(0.278)	(0.266)	(0.250)	(0.250)	(0.251)
Average Firm Size		0.680***	0.451***	0.452***	0.456***
		(0.142)	(0.160)	(0.160)	(0.159)
Industry Size			0.367***	0.367***	0.371***
			(0.120)	(0.120)	(0.121)
Industry Profitability				-0.00604	-0.00591
				(0.0126)	(0.0127)
Fixed Asset Ratio					-0.00194
					(0.00236)
Constant	5.670***	3.723***	-2.255	-2.286	-2.331
	(0.537)	(0.742)	(2.333)	(2.343)	(2.351)
N	3999	3999	3998	3998	3998

**Notes:* Standard errors in parentheses ($*p < 0.10, **p < 0.05, ***p < 0.01$). Privatization Velocity II = number of years it takes for an industry (4-digit VSIC level) to reach 90% private ownership. HHI is log transformed.

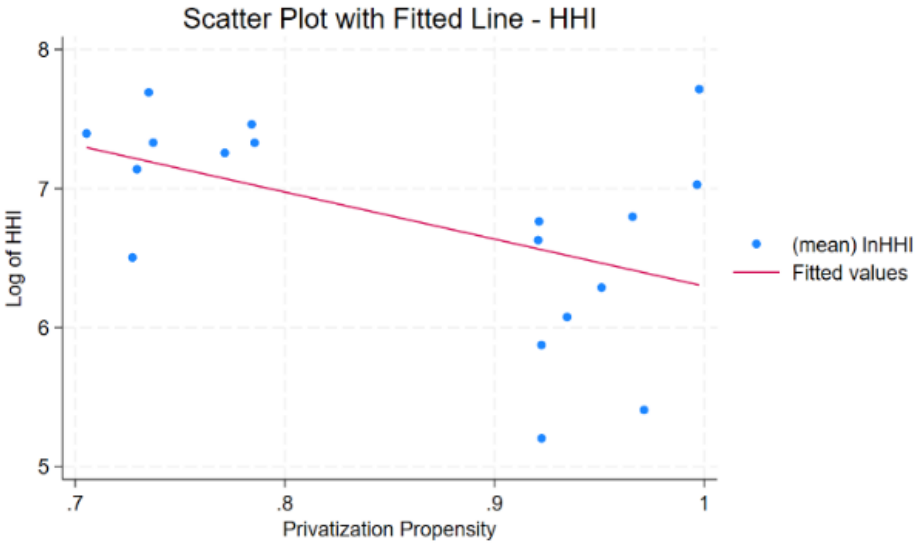
Appendix Figures

Figure 5.1: Changes in privatization propensity across sectors (2006-2018).



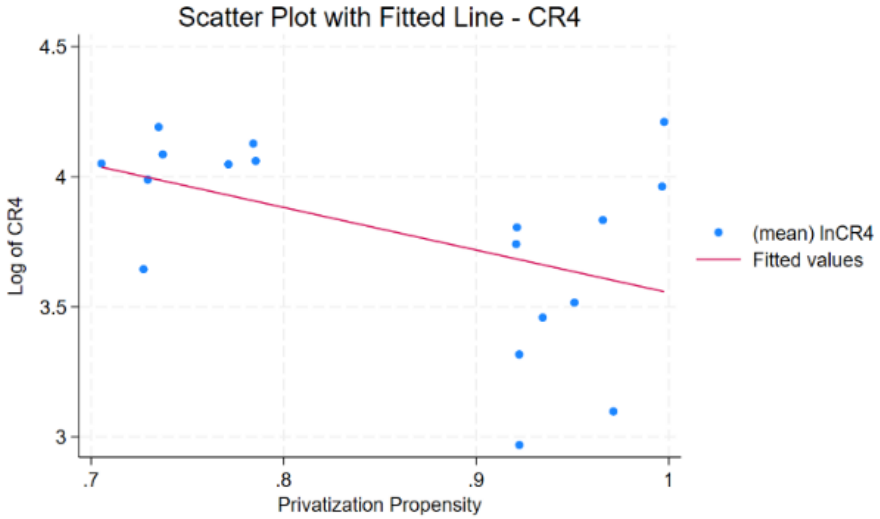
*Note: Sector classification based on Vietnam Standard Industrial Classification (2007) (VSIC, 2007).

Figure 5.2: Relationship between Privatization Propensity and Log of HHI



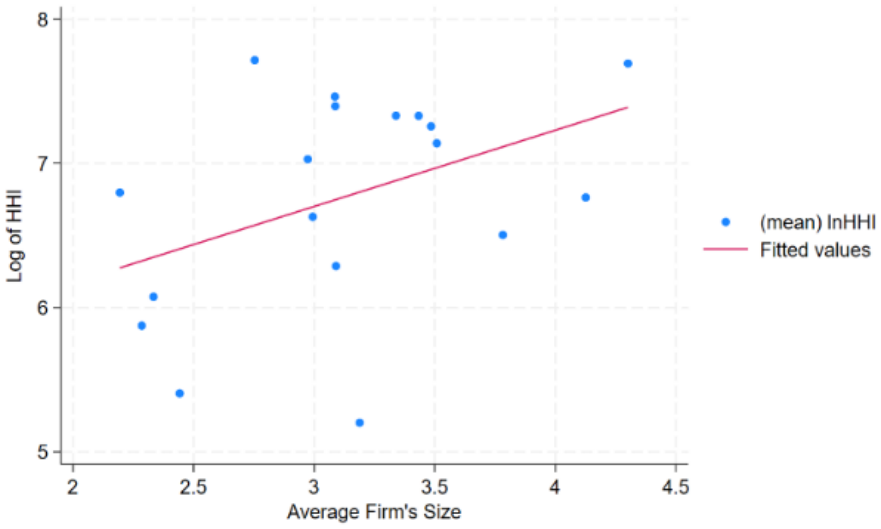
* Note: data aggregated at sector level (VSIC, 2007)

Figure 5.3: Relationship between Privatization Propensity and Log of CR4



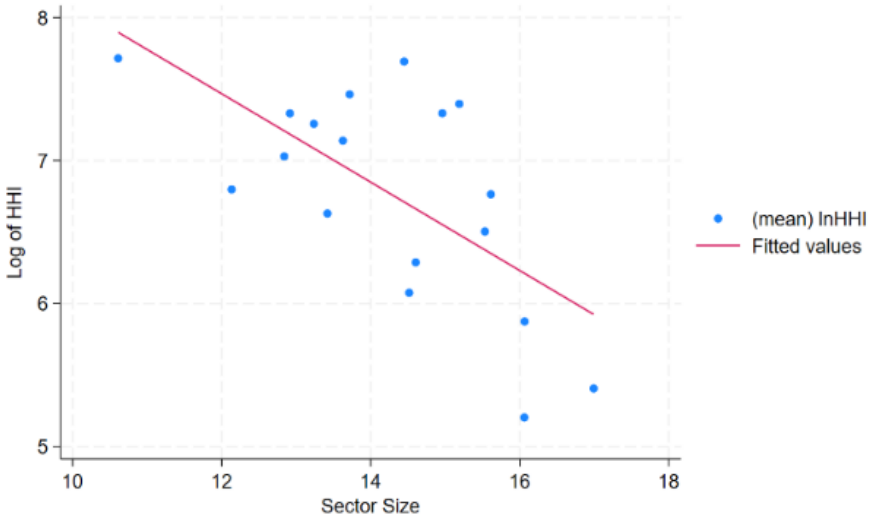
*Note: data aggregated at sector level (VSIC, 2007)

Figure 5.4: Relationship between Average Firm's Size and Log of HHI



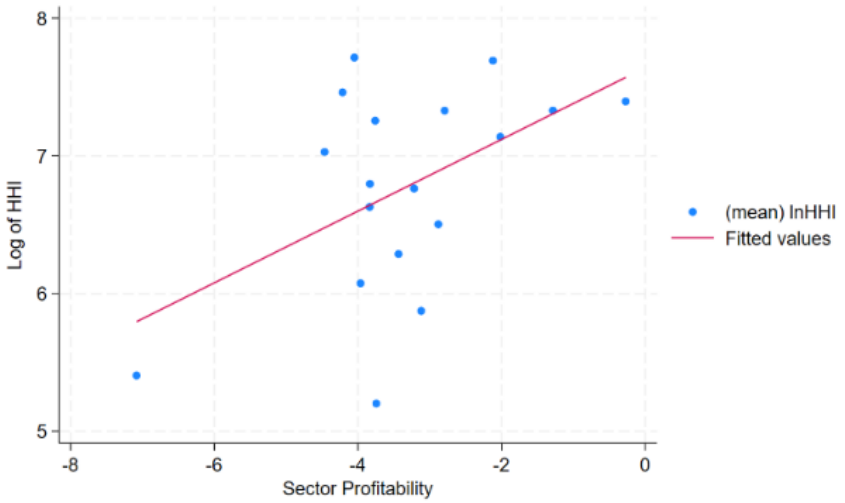
* Note: data aggregated at sector level (VSIC, 2007)

Figure 5.5: Relationship between Sector's Size and Log of HHI



* Note: data aggregated at sector level (VSIC, 2007)

Figure 5.6: Relationship between Sector's profitability and Log of HHI



* Note: data aggregated at sector level (VSIC, 2007)

Figure 5.7: Relationship between Fixed Assets to Total Asset Ratio and Log of HHI

* Note: data aggregated at sector level (VSIC, 2007)

Conclusion

Throughout the evolving history of the global economy, very few concepts have carried as much weight and controversy as privatization and nationalization. In the 1950s, an economist proposing a large-scale privatization program of state-owned assets would likely have been deemed unrealistic, as the dominant economic thinking at the time strongly favored state intervention. In contrast, by the 2000s, a proposal to nationalize the majority of private enterprises within a country or an industry would almost certainly have been labeled authoritarian or anti-market. This ideological shift reflects a profound transformation in global economic thinking over the past century. Whereas state interventionism was once seen as the central pillar of economic development, contemporary economic thought now emphasizes the role of free markets and the private sector as the primary drivers of progress.

History, however, reveals that nationalization can repeat anytime and anywhere. Since the outbreak of the war in 2022, Ukraine has nationalized assets linked to Russia. Since 2021, China has acquired "golden shares" in tech giants like Alibaba, Tencent, Ant Group, and ByteDance in order to increase state influence over these companies. In 2022, Germany took over a subsidiary of Gazprom to protect its gas supply. And even the United States once rescued General Motors from the 2007–08 Financial Crisis by acquiring a 60.8% stake in this corporation. All these instances serve as a reminder that, although free-market principles are now the dominant economic paradigm, state ownership remains a viable, pragmatic option when national interests are at stake.

History has also shown us that a severe economic crisis can break established norms and fundamentally change the way we think about the economy. When a crisis of such magnitude sweeps through, questions that once seemed settled will

resurface, such as: *Which industries, if any, should always remain under state control and why? When and how should a government re-privatize an industry it has nationalized? What is the most effective approach to re-privatizing a sector? How to assess its impact?* Given the significance and persistent nature of these questions, my dissertation seeks to study the essence, mechanisms, strategies, and implications of privatization.

Overall, my dissertation presents three key findings that contribute to the extant literature. *First*, the privatization process in Vietnam has been relatively late and cautious, mostly focused on smaller firms. Moreover, the process has been quite stable over two decades (ca. 1998–2018), without distinct phases of acceleration or stagnation. These characteristics of privatization have been influenced by both endogenous and exogenous factors. Emerging from prolonged wars and economic sanctions, Vietnamese SOEs survived, adapted, and developed, attaining a certain degree of autonomy in the production and distribution of their goods and services. While beneficial during wartime, this autonomy later became a significant barrier to privatization—a pattern observed not only in Vietnam (Gainsborough, 2004; Wacker, 2017) but also in many other post-communist countries (see, e.g., L. Cao, 2000; Savas, 1992; Zheng, 2019). Autonomy without strong institutions and hard budget constraints also led to weak corporate governance and, eventually, inefficiencies. The increasingly inefficient SOE sector became a threat when, following Vietnam's economic liberalization in the late 1980s, foreign and domestic private firms began to enter various previously state-owned industries. In response, rather than reducing the role of the state and privatizing on a larger scale, the SOE sector was strengthened, and large SOEs were consolidated in order to compete domestically and internationally.

Second, the empirical evidence presented in this dissertation indicates that privatization in Vietnam led to an improvement in corporate performance; however, privatization was ineffective among SOEs in the service and trade sectors. Two mechanisms could explain this heterogeneity. The first mechanism applies to SOEs that provide essential services, such as public education or basic healthcare. Since these enterprises provide essential goods and services, they are more likely to continue receiving government subsidies following privati-

zation. In this case, a soft budget constraint mechanism persists, and thus, privatization may not necessarily facilitate the corporate restructuring needed to improve operational efficiency. The second mechanism applies to SOEs providing non-essential services—an area in which the private sector clearly has a stronger competitive advantage over the state. In this case, privatization fails to produce significant changes due to the dispersed market structures of these sectors. More specifically, fierce competition in the non-essential services sector has driven production costs down to highly competitive levels, allowing SOEs in these sectors to contract out part or all of their functions to private firms rather than carrying out the work by themselves, which eventually helps them cut down costs and increase efficiencies.

Third, and perhaps most importantly, this dissertation finds evidence that rapid privatization helps reduce market concentration. Why did a fast privatization process limit the formation of monopolies and reduce industrial concentration across the majority of economic sectors? Several mechanisms may be at play: (1) faster privatization could have allowed for the quicker entry of new private firms into a previously concentrated market, which might have rapidly increased competition and diluted market power of former state-owned monopolies and/or oligopolies; (2) when privatization occurs rapidly, the market undergoes a swift transition period, preventing any single entity—whether a newly privatized firm or an existing player—from consolidating excessive market power; (3) rapid privatization often involves breaking up SOEs into separate private firms rather than consolidating them, thereby reducing the risk of forming large state-owned conglomerates that could dominate the market; (4) in the case of Vietnam from 2006 to 2018, where institutions had become relatively mature after two decades of continuous development, a faster privatization process could become more effective, as it likely limited opportunities for political maneuvering and economic rent-seeking behaviors. The last mechanism is important, since it emphasizes the role of institutions: stronger institutions in Vietnam during the late transition period could have prevented the concentration of market power among a few firms, as seen in Russia during the early transition period.

Through the last few lines of this dissertation, I would like to discuss the limitations as well as broader implications of my work for future research.

To evaluate privatization in a truly scientific manner, a dialectical approach is necessary. Accordingly, the combination of qualitative and quantitative research methods is not only beneficial but imperative for gaining a nuanced, multidimensional understanding of the subject. Unfortunately, within the scope of this study, I have not been able to systematically apply qualitative methods due to constraints in obtaining first-hand information on privatization in Vietnam.[27] However, no phenomenon is constant in its interpretation: in one historical context, it may be seen negatively, yet in another, the same phenomenon may be perceived as positive, and vice versa. While privatization in Vietnam may still be a sensitive issue at the moment, I believe that the attitude will be more open in the future. By then, we will be able to conduct in-depth research using rigorous qualitative methods, such as deep interviews with former executives and employees of the privatized SOEs. Certainly, this will provide us with a more complete picture of Vietnamese privatization.

In addition, to fully understand privatization and its mechanisms, it is essential to adopt a multi-perspective approach. Throughout this dissertation, I have demonstrated that a historical framework accounting for both diachronic and synchronic dynamics can be highly useful and intuitive in understanding privatization. I have shown that privatization is not merely a reflection of internal economic pressures; rather, it is the outcome of multidimensional interactions involving politics, institutions, society, technology, and globalization. Political ideologies, governance structures, and public sentiments play a crucial role in shaping privatization policies. In the same way, technological progress, economic integration, and global crises can either accelerate or slow down privatization efforts. Privatization research is, at heart, multidisciplinary. Hence, collaboration among scholars in politics, sociology, history, law, technology, and international relations, to name just a few, is needed to fully grasp the complexities of privatization.

[27] At the early stages of conducting this thesis, I had tried to contact several companies to gather their opinions on participating in a study on privatization. However, most companies that had undergone privatization were hesitant to take part in such research. As a result, I decided to shift my approach to analyzing enterprise survey data from the General Statistics Office and primarily adopted a quantitative methodology instead of a qualitative one.

The choice between a micro-level or macro-level research approach when studying privatization is also a crucial decision that directly influences the depth and scope of a scholarly work in this area. In my opinion, one should begin with piecemeal micro-level studies before moving to more grand research. This approach helps establish a solid foundation of data and reasoning while ensuring accuracy and avoiding premature generalizations. However, modern micro-level research is far from simple. It requires researchers to delve deeply into a very narrow area, focusing on highly detailed and specialized topics. This approach therefore requires precision, thoroughly verified data and, most importantly, novel insights. Even a seemingly minor discovery, when placed within a broader knowledge system, can yield significant impact. Over time, through critique, revision, and refinement, a researcher's understanding will expand in both breadth and depth. Many of the world's greatest economists have dedicated their late careers to synthesizing knowledge, systematizing theories, and ultimately formulating school-defining perspectives.[28]

Finally, despite its scientific nature, research on privatization can never be entirely free from the influence of subjective interpretation and personal perspective. Throughout this dissertation, I have had to revise—and, at times, completely discard—previously written works, or more precisely, ideas I once believed to be true. For instance, while drafting Chapter 2, I initially held a rather negative view of rapid economic transformation, especially after reading widely cited works in this area (e.g., Popov, 2007; Stiglitz, 1999). However, after completing Chapter 5 and discovering that rapid privatization in Vietnam contributed to reducing market concentration, I felt the urge to revisit Chapter 2 and critically reassess my prior writings. After reviewing more recent empirical studies (e.g., Havrylyshyn et al., 2016; Kantorowicz and Spruk, 2024), I gradually changed my mind about rapid transition approach. This realization led me to rewrite a large part of the section on *The Transition Debate* in Chapter 2 and also include my own hypothetical testing using synthetic control methods to verify earlier studies rather than simply quoting them.

In the end, no matter how meticulously researched, every scholarly work should be viewed as part of an ongoing intellectual debate—open to critique,

[28]These scholars include, for instance, Douglas North, David Landes, and Robert Allan.

refinement, and expansion by other scholars, as well as by the authors themselves in the future. The information, arguments, and ideas presented in this dissertation are no exception. I hope this dissertation will be critically examined, debated, and expanded upon in future research. This is my greatest aspiration as the author of this work.

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