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Semi-Private: Exploring the Deployment of Mixed-Ownership Enterprises in China's
Capitalism

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Social Science

by

Andrew Allen Duncan

Dissertation Committee:
Professor David A. Smith, Co-Chair
Professor Wang Feng, Co-Chair
Professor Nina Bandelj
Professor Dorothy Solinger

2015

DEDICATION

To progress, in both our understanding of the world and in the emancipation of all humans living upon it.

Let this one small piece of research take its place in the endless pursuit of knowledge.

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ABSTRACT OF THE DISSERTATION

Semi-Private: Exploring the Deployment of Mixed-Ownership Enterprises in the Chinese Capitalism

By

Andrew Allen Duncan

Doctor of Philosophy in Social Science

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The Chinese economy has transformed significantly since 1979, and the spread of mixed-ownership firms since the late 1990s is a notable, if under-explored part of it. Mixed ownership, combining state and private capital, presents a challenge to mainstream economic ideology and, as widely used as it is in China, may represent an alternative mode of capitalism. This dissertation draws from the varieties of capitalism, post-socialist transition, and developmental state literatures to explore economic strategies that may guide the implementation of mixed-ownership across all industries, competing with, and replacing both state- and privately-owned businesses.

Using the Chinese Economic Censuses from 2004 and 2008, the Annual Survey of Industrial Firms from 1998-2007, and my own impressions and information gathered from fieldwork in China, I approach this topic with industry-level data from across the entire economy, as well as 361,450 firm-years' worth of detailed firm-level data. I use summary statistics to show that the implementation of mixed-ownership as a general type of firm is both widespread, occurring in every sector of the economy, and making a significant

proportion of firms within many industries. However, various regression models show that, while mixed ownership is progressing and evolving as a significant part of the economy, any cohesive strategy for the utilization of these firms— by state or private investors- is only beginning to become evident by the end of the period in the study. Furthermore, I show that firm registration is only occasionally based upon the sources of capital within that firm, a fact that shows the complexity and ephemerality of the very specific forms of institutions in the economy.

At this time, it remains difficult to categorize the Chinese economy because, even after more than thirty years, the transformation continues. I argue that China does not conform well to existing models of capitalism in part due to mixed ownership, and that the state is only now evolving mixed-ownership firms into a proper development-oriented institution. In the coming decades, it is likely that these firms persist and grow into a larger role mediating state and private entrepreneur interests while promoting necessary economic goals.

I. Introduction: Mixed Ownership and the Development of Capitalism

One of the most common topics in news reports about China since the summer of 2015 is its wildly tumbling domestic stock markets. Multiple news reports and opinions ramped up skepticism about the Chinese economy, prompting fears that, after decades of sustained reform and growth, the Communist Party of China (CPC) was finally leading the country into ruin and taking the global economy along with it. The slowdown of the economy since about 2008 gave a new legitimacy to claims that the CPC was hindering the transition into market-based capitalism, that dominant state-owned enterprises (SOEs) were protected from competitive forces across many industries, and that the fledgling capital markets mismanaged private and state funds. Despite nearly thirty years of policy that produced record-setting growth rates, many in the west cheered that the CPC had finally faltered. This dissertation looks at the period leading up to the recent downturn, from 1998, when important changes to ownership policy were enacted, to 2008, just as global recession produced new external challenges for the developing economy.

Where common discourse typically only sees state ownership of firms as bad and private ownership, including businesses registered or financed by private individual, as good, this work depicts a more complex economy that has developed into a hybrid, or mixture of state and private together, both across industries and within individual firms. Overall, this work tries to show a relatively novel organization of an economy, especially for such a large and powerful nation. The Chinese economy is an evolving institutional arrangement that could develop to minimize weaknesses and emphasize strengths of different ownership types, while accounting for major structural changes that have allowed for significant problems to persist or even to

grow. At best, this dissertation will show an economic model being tested in the real world, with all of the challenges that come from that, and with many changes yet to come.

Considering the importance and role of China in the global economy, it is not surprising that the changing political economy of China is also of great interest to social science. China's transformation is a source of both innovation and confusion in China, as new industries, new companies, and new political and business leaders rise and fall. A key part of this change is the devolution of some business property rights and corporate governance from central control to local governments and even further to private actors. The process of decentralization, and sometimes subsequent re-centralization, varies across industries and regions and does not follow the scripts or ideologies of western academics. From these changes a complex social order emerged in which relationships between public and private are often unclear, and control of the economy may be more or less strategic or predatory. Recently, Nee and Opper (2007) describe China's economy as being "politicized capitalism," where the state is able to continue to have a hand in even the day to day affairs of many, but not all, businesses in China.

Scholarly debates on political economy topics, such as economic development, often focus on the relationship between state control and market forces. Even the very notion of economic development itself can be defined in various ways: high growth rates for a nation's Gross Domestic Product (GDP); moving away from low-value primary industries, such as agriculture, in favor of manufacturing and -better still- research and development or finance at the head of production chains; or even with measurements of improved standards of living for the nation's citizens. The respective roles of the state and the market is a heavily contested topic. On the one hand, the technocratic planning of the production and consumption patterns for a large, complex economy, such as China's until 1979, has been criticized as inefficient in

allocating scarce resources, and inflexible in adapting to economic changes. The upside of this high-degree of state control has been the pursuit of social welfare and political stability.

On the other hand, increased reliance on the market is the exact opposite, allocating resources with “ideal” efficiency and responding as quickly as supply or demand may change. The downside, in this case, is equally the opposite of state planning: social welfare is not prioritized, and economic and political disruptions are more likely. Using a Polanyian definition, “economic structures and relations are politically enabled, institutionally mediated, and socially embedded” (Peck & Zhang 2013). How states respond to internal and external pressures to the economy from other countries or markets, what states prioritize and how their policies support or undermine their goals, and how other institutions moderate or mediate the relationship between state and economy, are all critical questions.

For China, the answers to these questions have been varied and often ephemeral throughout the reform era beginning in 1979. From a broad perspective, after the death of Mao Zedong in 1976, China quickly embraced a limited version of the Western-style market economy, while simultaneously pushing back against many aspects of that same ideology when pressed by outside actors and experts. Even after fighting for years to gain entry into the World Trade Organization (WTO), a goal finally achieved in 2001, China used its economic clout to only selectively enact the rules that it agreed to. What China has done, though, is to establish a market-oriented economy while maintaining political legitimacy and stability for its single-party regime. China prioritized economic development by creating competitive forces where none existed previously, without sacrificing much of the authority enjoyed by the Communist Party of China. State-Owned Enterprises are unquestionably still significant, maybe even dominant, actors in the economy, but a private sector emerged in regions or industries that were less well

covered by SOEs. During the reform period, the Chinese state got out of the way of private entrepreneurs legally, by allowing alternate forms of property rights, and also economically by actively selling off SOEs that were underperforming or simply not important to state interests.

While common perceptions of China focus on the seemingly inexorable path towards a completely private, capitalist economy (e.g. Adelman 2001, Nee 1989, Nee & Oppen 2007, 2013), the state has not allowed this to happen without oversight or regulation. Consistent with studies of other market “liberalizations” (Vogel 1996, 2006; Snyder 2001) the creation of markets that are relatively free in China requires massive new institutions and policies to regulate change, enable growth, and impede political challenges. As Vogel (2006) claims, “freer markets require more rules,” and China responded to this need with many new institutional forms and practices.

One critical innovation, which may not be as well understood as it should be, is the creation of mixed-ownership enterprises (MOEs) and how this new type affects both SOEs and private enterprises. In the most basic sense, MOEs are firms that combine state and private ownership and the resulting interests, benefits, and risks. What constitutes an MOE in China has changed since the reform era began in the late 1970s. Some scholars in a variety of fields focus on this relatively novel and flexible hybrid system, which China deployed to negotiate between the advantages and disadvantages of public and private enterprise in the early reform era. As described later, the MOE sector of the 21st century is not the same as the “hybrid” town and village enterprises (TVEs) from the 1980s discussed by Oi (1992) and others. Instead of small, local public-private partnerships, such as those old TVEs, focused on light manufacturing, the MOEs of today are found at a much larger scale, involving the mixing of investment from public and private actors in corporations listed on the Shanghai and Shenzhen stock exchanges. These

Joint-stock corporations, representing combinations of central state, local state, SOEs and subsidiaries, and private investors, were experimented with as far back as the early 1980s and became widespread after the passage of the 1997 Company Law (Zhang 2011).

The central research question in this work is whether the current Chinese economy constitutes a novel form of capitalism, in which one hallmark is the utilization of MOEs. This question has three specific parts; first, how prevalent has mixed ownership been in the economy over time? Second, are specific industries or types of firms likely to exhibit mixed ownership? Finally, is the use of mixed ownership an indicator of the role of a developmental state in China? This last question is evaluated by inferring that the patterns of MOEs across industries from the second question may be representative of intentional actions taken by the state to guide economic development in certain ways.

This project rests on two main assumptions about China's political economy. First, in order to infer any potential coordination of firms to support developmental strategies, I assume that the Chinese state, particularly the central government, is taking such actions, and that mixed ownership is not appearing in the economy due to other factors, the actions of other non-state actors, or even randomly. This assumption is plausible, because the CPC really does manage the direction of the economy through the creation of Five-Year Plans, as well as the direction of specific firms through the appointment of managers. However, this assumption is dangerous because operations using the state as a monolithic entity that has one set of goals and coordinated efforts with which to achieve those goals. This view ignores the extent of decentralization of state power and any possible ideological differences among political actors or factions.

The second assumption is that firm ownership has real meaning for corporate governance and firm outcomes. In general, this assumption is fairly safe, and the literature on state

ownership compared to private ownership is extensive, dating back to the works of Hayek, Keynes, and Friedman (Djankov & Murrell 2002; Shirley & Walsh 2001; Dong et al. 2014). These works often describe the advantages held by private firms over state controlled and mixed-ownership firms in competing in an open market and risk-taking behaviors, and call into question both whether or not governments necessarily have welfare maximization as a goal, and whether or not governments can actually coerce desired outcomes from SOE managers. A related field discusses the limitations of privately-owned public firms, such as publicly-traded corporations. These firms can suffer from the moral hazard that comes from a weak relationship between firm managers and hidden owners. This disconnect between interests may lead to actions that benefit the managers rather than the owners (Jensen 1998; Amihud & Lev 1981, 1999; Jensen and Meckling 1976). In the context of this dissertation, however, I can only assume that the corporate governance of Chinese firms matches the expected behavior of firms of their type, whether SOE, MOE, or private.

In this dissertation, MOEs are identified in two ways. First, if a firm is officially registration as limited liability corporations (LLC) or shareholding corporations (SHC), I designate it as an MOE on the assumption that these firms are open to investment by non-state actors and that these actors have some of the same rights and privileges as partial owners that the state has. Registration alone does little to clarify the relative weight of ownership within the firm, and only assumes that any given LLC or SHC is meaningfully different in ownership from SOEs or private firms. Because of this, I also use a second method to identify mixed ownership according to the proportion of capital that a firm receives from state and private. These MOEs can be identified much more confidently by showing that these firms actually do have a mixture of state and private capital.

In order to pursue these inquiries, I translated two large data sets from Chinese, the Chinese Economic Census and the Annual Survey of Industrial Firms, which together provide both depth and breadth of information on the economy over the period during which MOEs became widespread. Additionally, I spent one year at Fudan University in Shanghai to conduct a short series of interviews with private businesses and state actors, as well as academic experts at several universities around the country. The information gained from these discussions, while not sufficient to form the basis of a qualitative data analysis, was invaluable to understanding the history, the complicated present context, and some possible futures for mixed ownership in China. This information provided much of the context necessary for forming hypotheses that are based upon scholarly research, but also grounded in at least some measure of the realities of life in China.

A. Are MOEs important as a type of ownership?

At the intersection of what remains of the old planned economy and burgeoning private sector are MOEs, containing both state and non-state shares. While MOEs are not unique to China, their prevalence in the economy is greater than in other nations where MOEs are limited to either certain industries (e.g. utilities) or to certain time periods (e.g. during early periods of privatization). Since 2003, China actually designated mixed-ownership as the preferred form of public ownership (Central Committee of the CPC, 2003). This strategy of prioritizing mixed ownership is a significant part of the so-called “Chinese model” of development and makes the Chinese case both compelling and difficult to compare to other models. Additionally, it is interesting to consider the implications of mixed ownership for corporate governance, as firms balance the interests of central state, local states, and businesses; it is also valuable to study the

relationships and power disparities between these actors.

For this project, MOEs will refer to firms registered as one of two types: limited liability (LLC), and shareholding (SHC) corporations. According to the China National Bureau of Statistics (2012), LL firms are ones established with the investment of 2-50 investors and SH firms are created with equal shares that are issued as stocks. Both of these ownership types have the potential to mix public and private ownership in different ratios and through different methods that may generate a variety of characteristics. Joint-ownership firms (JO), defined as those that were established by two or more corporations, including state joint ownership, collective joint ownership, state-collective joint ownership or joint ownership with the private sector, seem like a likely contributor to the MOE sector, but these firms have been excluded from the analyses in this dissertation for two reasons. First, these firms represent not the more recent variety of mixed ownership, seen in LL and SH firms, but the old style of TVEs and other early experiments that created many new firms at the dawn of the reform era. This makes these firms meaningfully different in nature from modern MOEs, many of which are not new firms but older firms being reorganized into the LL and SH type. Second, JO firms are disappearing; their numbers are overall only a tiny fraction of the total number of Chinese businesses and are getting smaller in the available data.

While many academic debates focus on the Chinese transformation, there is relatively little attention being paid to MOEs as one or more entities qualitatively distinct from both SOEs and private firms, with unique characteristics and functions in the economy. This partly stems from the difficulty in categorizing MOEs, as registration type can be misleading about true ownership, and capital investment can be difficult to decipher, if this information is even available. Nevertheless, it remains to be seen if varying relative proportions of state, private, and

corporate capital create different groups of MOE industries or firms, and if these groups were constructed to have, or have otherwise acquired, traits that set them apart from previous types of organizations. This is the first question for assessing the Chinese variety of capitalism that this work describes: are MOEs in China a durable and meaningful category of economic organization, or are they merely a temporary phenomenon found during a period of rapid economic growth and change?

B. Strategic Sectors: How are domestic MOEs distributed across industrial sub-sectors?

Thirty years of gradual reforms in the Chinese economy produced more of an “economic mosaic” than a single uniform system (McNally 2006; Zhang & Peck 2013). Because of this, comparisons of China to existing theoretical types of economies have failed to place China as a whole into a single category. In some cases the state is viewed as a savior, while in others the state is the source of all economic problems. Sometimes privatization led to growth, while other times corruption of the process led to inefficiency. While the entirety of the economy eludes description, individual parts of economic activity in China, whether by region or by industry, show significant variation in political and economic relationships, as well as economic outcomes. An obvious question, then, is what factors influence privatization or re-nationalization within a country? The answer to this question will not necessarily be straightforward and may vary by time, location, or industry.

China is not alone in experiencing economic transformations; many nations experienced waves of nationalization after the Second World War, followed by privatization in the 1980s and ‘90s, and 2000s, and even a new wave of re-nationalization after the global recession in 2008 (Rosa & Perard 2010). The former socialist states of Eastern Europe certainly sought

privatization during the transition period in the 1990s (and earlier for some countries, such as Hungary). Much of the privatization literature focuses on optimal methods or speeds of privatization (e.g. Boycko, Shleifer and Vishny 1995, Brada 1996) or the effects of privatization on firm efficiency (see Djankov & Murrell 2002 for an overview). The built-in assumption of the fundamental rightness or the seeming inevitability of privatization seemingly found in these discussions ignores the intricate details of how privatization is negotiated within a political system and excludes entirely the possibility that political actors would want to limit privatization or even *re-nationalize* firms.

As will be discussed in detail in chapter two, the Chinese case is somewhat unique in the fact that its economic transformation has been so prolonged and has not specified a desired end state, including complete privatization. The Chinese MOE sector even has two different origins, one top-down and the other bottom-up. For the former, as SOEs were opened to both competition and stock ownership, with the newly real threat of failure, managers sought out private investors to provide expertise, connections, and entrepreneurial creativity that the firm lacked before. For the latter, private firms sought state partners in order to gain legitimacy, protection, and favorable access to resources. While the micro-level benefits to firms, individuals, or local governments is clear for both top-down or bottom-up hybridization, these explanations do not describe any possible macro-economic strategy for the MOE sector as a whole.

Unfortunately, *why* the MOEs were encouraged to spread by the government is uncertain. In China, certain industries are generally assumed to be either under private or direct state control. For the former, light manufacturing and consumer services are often the most likely industries, if not always so. For the latter, in 2006, the state targeted seven industries that would

be kept under direct state control: military industry, electric power generation and distribution, petroleum and petrochemicals, telecommunications, coal, civil aviation, and shipping (Xinhua 2006; Naughton 2006). By 2010, this list would grow to include banking, natural gas, railroads, insurance, grain distribution, machinery and automotive production, and the production of iron, steel, and non-ferrous (Deng et al. 2011) .

The Chinese state successfully integrated into the global economy by decentralizing control of industries in favor of market guidance and private sector growth (Huang 2008; Naughton 2007; Qian 2003). However, Hsueh (2011) describes this change as being only partially genuine; where direct state control decreased across the economy as a whole, it remained dominant in certain industries or sub-industries deemed to be too critical to national development and stability to leave to private owners. Sub-industries, or industrial sub-sectors, refer to the array of specific types within the 18 major industrial categories. For example, within the financial industry, sub-industries include banking and insurance; within the manufacturing industry, sub-industries include everything from production of food, to socks, to cars. Pillar industries, such as finance and energy, remained in the hands of a few large SOEs. Non-strategic industries, including many types of light manufacturing, were essentially, if not explicitly, privatized.

In between these two poles are the great majority of industries that may be somehow too valuable to privatize immediately, but not important enough to justify complete state ownership and the problems that come with that in the long-term. This is the MOE sector, which varies in the proportions of capital ownership, with the shares owned by the state varying from very few to many and dominating. Hsueh provides an analysis that shows the strategic value of industries leads to different types of special attention and support from the state. If mixed-ownership is

indeed a form intentionally deployed by the state for developmental purposes, then Hsueh's description may accurately predict the distribution of MOE ownership across these industries, especially in those that involve high technology or national security. In this case, the "strategic" value of an industry may be discerned by a purposive distribution of dominant state investment in the MOE sector. On the other hand, if MOE investment rates are haphazardly distributed across industries, without any relationship to strategic industries, it may be that the central government has merely "gotten out of the way" of market forces and MOEs are a response by individual firms to address uncertainty, as in the case of many Eastern European firms during the post-socialist transitions there. It is unclear whether or not the strategy of creating MOEs, rather than only all-public or all-private, is utilized for particular effects within the economy. Indeed, much of the existing literature assumes that MOE firms are essentially the same as either public (Huang 2008; Guthrie 2006) or private sector firms (e.g. Nee 1992; Nee & Opper 2006), an issue that will be explored in the next section. Part of this study answers this lingering question by identifying the particular strategic goals which the hybrid sector is aimed to fulfill, or, more accurately, whether MOEs more closely resemble the patterns represented by SOEs or privately-owned firms.

Ultimately, property rights reform and economic transition is an opportunity for major social change. The foundation of political economy research lies in uncovering the relationship between wealth and power and in identifying all of the institutions that are created to support various social arrangements. Property rights and corporate governance are the focus of the transformation, but new ethnic relations, altered class formations, and political mobilizations may well be the result (among historical examples are those described by Paige 1975; Paige 1997; Roy 1997; Stinchcombe 1961). By reducing state oversight of firms in the 1980s, there

was an opportunity for the growth of an indigenous entrepreneurial class in China for the first time in decades, a class that could either rival the current political elites - or be captured by them. The MOE sector is a way for the Chinese state to moderate and control these effects while still encouraging economic development. China is an excellent case for the study of MOEs not only because these firms are so prevalent there, but also because the Chinese economy is large enough and varied enough that it is possible to dig deeply into the question from many directions.

Expanding the idea of property rights and corporate governance to nations coexisting within a complex world system, the rapid rise of China creates an opportunity to challenge the existing international neoliberal economic hegemony. The success of Chinese economic development, in general, gives the CPC the ability to better negotiate with the existing global powers, not just on its own behalf, but to affect the situation of other developing countries. By developing according to the CPC's own plan, through both bad and good periods, the Chinese case offers a challenge to the very neo-liberal ideology that underlies the current international political system and the global division of labor.

Some scholars see this as a necessary change, to push the world into a system balanced between several powerful poles (Arrighi 2007), some even seeing this as an inevitability based upon a historic trend. Frank (1998) claims that China was the center of the world economy from around 1400 to 1750 and is returning to a position of supremacy with the decline of the European-American dominance. Other scholars are less convinced that China will or should become the next global power. For Hung (2009a), it is certainly possible that China will continue to rise, but the pathway that it will pursue is not at all clear. Instead of challenging the global institutional order, there are myriad institutional arrangements and geopolitical trajectories that China could pursue that fall in line with established models. The many major challenges to

the Chinese economy and the political system, as the nation deals with not only domestic issues such as a deepening environmental crisis and inequality, but also with the systemic crises that come with engaging in the global economy, may prove insurmountable for the current political and economic system. However, if the present Chinese developmental model can survive the turbulence of international finance bubbles and its reliance upon weakening consumption in the west, the current arrangement of global capitalism will not survive unchanged (Hung 2009b, 2008).

C. Organization and Summary of this dissertation

Even if the Chinese economy can hardly be labeled as “purely” capitalist, it is clear that certain elements of the economy are directly comparable to a capitalist system. Despite the persistence of a Communist ruling party and socialist rhetoric, the Chinese economy of 2015 has departed significantly from the planned economy of the old Soviet-style system. In the place of price setting and production quotas, the market now plays a huge role; in the place of SOEs that were solely beholden to the whims of party elites, now there exists myriad firms quickly adapting to modern management and accounting practices to better pursue the profit imperative. Several related literatures examine the Chinese case in an effort to categorize it and, thus, to be able to identify the current alignment of various parts of the economy, and to predict the direction of future stages of transformation.

This dissertation is organized around three different theoretical debates, centered on whether or not the Chinese economy is, or will soon be, a capitalist economy – post-socialist transitions, developmental states, and varieties of capitalism. As alluded to in the two prior sections, and expanded upon in Chapter 2, the partially-market oriented economy has other

influences beyond Western, neo-liberal ideology to guide it. In fact, the push towards total privatization is clearly moderated by two factors: the legacy of the planned economy (post-socialist transition literature) and the examples of somewhat less invasive, and wildly-successful, state-led development experienced by Japan, Taiwan, and South Korea leading up to and during the early reform era in China (developmental state literature).

With these competing influences, along with a decade's worth of institutions designed for and around state intervention in the economy, the CPC began experimenting in local economies, adopting policies that worked and adapting over time. In 1998, a revised company law set the stage for increased privatization, as well as the establishment of mixed-ownership corporations. This begins the period under study in this work, when MOEs begin proliferating, in reality and in political discourse. The Annual Survey of Industrial Firms (ASIF) presents data for specific firms from 1998 to 2007 in a variety of industries, notably including their ownership registration and their capital by source (state, private, and corporate "mixed"). Additionally, the Chinese Economic Census, first conducted in 2004 and again in 2008, provides a much broader view of the economy, but lacks the firm-level details. Taken together, these two data sources provide an opportunity to assess the distribution of state, private, and mixed-ownership firms across the economy and to compare firm registration, the most obvious way to determine ownership, to the proportion of capital that a firm actually receives from state and private sources. This check of one version of the data against another is certainly a strength of this project, though it is often the case that results from the two data sets do not match.

The third and fourth chapters provide the main empirical analyses in this dissertation. Chapter Three addresses the more general question of whether or not the modern hybrid firm is a large part of the economy. Summary statistics show the increase of MOEs as a proportion of all

firm registrations from 1998 to 2007 in the ASIF data, coming in at nearly 22% and focusing on extraction and manufacturing, but there was a decrease between 2004 and 2008 in the CEC data for the economy as a whole, ending at only 13.6% of all firms. These numbers do represent a significant portion of a very large number of businesses, but the figures for specific types of firms rate MOEs as even more important. According to the CEC data, by 2008, MOEs accounted for 26% of firms with assets over five million RMB, 35% of all revenue earned, and 31% of all employment. Certainly, these numbers justify considering MOEs an important part of the economy.

The CEC data further suggest specific goals for mixed-ownership, with only construction, finance, real estate, and public facilities management constituted by at least 20% MOEs. These industries, each of which would typically be assumed to be heavily state controlled, point to MOEs being a replacement for SOEs, rather than for private firms. This question is the core of the fourth chapter, which uses regression modeling to identify strategic factors in the implementation of mixed ownership. Chapter Four explores this topic in two main parts: first, by comparing proportions of firm registrations using the CEC data and OLS models, and then by comparing proportions of firm capital by source, using the ASIF data and both OLS time-series and logistic regression models.

The results of these analyses are somewhat unclear, and often contradictory. The models for the industry-level data used a high threshold for detecting change and showed few significant results over all, particularly for MOEs. Some of the models for the firm-level data used a broader definition of mixed ownership, along with a more generous metric for change, and showed more significant relationships while still failing to identify a clear and compelling pattern to match any of the theoretical hypotheses. The most general conclusion from these

results are that state and private firms, defined either by registration or by capital, are fairly opposite in function in the economy, but MOEs do not seem to have a well-defined role. At best, MOEs are deployed in situations where there is some barrier to entry, such as high asset costs or the need to maintain high employment rates within a community. At worst, mixed-ownership is haphazardly implemented according to interests other than broad economic development, such as benefiting well-connected entrepreneurs or state actors leveraging their own power for wealth or local government bargaining.

Most notable were the relationships between MOEs and age and location; firms established since 1998, and firms established away from the well-developed coastal provinces are more likely to have mixed ownership. This result suggests that MOEs were supported by the political will at this time, especially in provinces that have historically lacked the economic infrastructure and wealth of the coast. While specific developmental strategies may not be evident for MOEs, at least this information supports a type of internal developmental state within China, with MOEs being utilized by regional governments to implement local economic strategies to catch up and compete with the coastal provinces. If I were to be generous to the Chinese central government, this regional strategy itself could be part of a tidal shift, slowly moving the economy inland to underdeveloped regions to prod them to retain cheap labor, while also ridding the coast of some industry in favor of placing higher value activities there.

Perhaps the most useful finding is the relationship between firm registration and capital source, or rather the lack of an expected match between firm registration and capital structure. Individual firms sometimes showed the exact opposite relationship (e.g. the non-trivial percentage of SOEs with no state capital, or of private firms with no private capital). Overall, there was no correlation between capital and registration, which forces us to reconsider simple

views of firm registration, and to ask what it means to be a privately-funded “SOE” or a state-funded “private” firm?

Further complicating the usage of firm registration in academic analysis, Chapter Three also notes the surprising frequency with which many firms changed their registration over the ten year period. This raised serious doubts about the utility of firm registration as an economic indicator, as registration appeared to be tied more to short-term, small-scale needs and opportunities for firms, rather than to macro-economic strategies. In light of this, it is important to return to the question posed earlier about the basic nature of MOEs: are MOEs more likely to be essentially private firms attempting to gain some advantages through explicit political connections; or are MOEs essentially state-controlled firms where high-level party bureaucrats use their authority to make public assets semi-private, and thereby gain personal wealth from it? The available data cannot address specific firm governance or predatory ownership, but the models in Chapter Four can show the extent to which MOEs appear in the same industries as state or private firms. Interestingly, the pattern of deployment for firms *registered* as an MOE resembles the patterns for firms registered as SOEs, while the pattern of firms with mixed *capital* resembles the patterns for entirely privately-financed firms. Unfortunately, I am left with more questions than answers on this topic.

In Chapter Five, I conclude this dissertation with a thorough discussion of the results and the relevance of specific developmental models. Additionally, I discuss the limitations of this project and potential future projects to expand and develop the ideas introduced here.

2. The Property Rights Revolution: From Town-and-Village Enterprises to Mixed-Ownership Enterprises, in Practice and in Theory

In this work I am investigating the relevance of mixed ownership in a Chinese variety of capitalism, in terms of both practical outcomes and theoretical debates, but I cannot focus on the specific details of MOEs without also describing the recent history of the Chinese economy.

Mixed ownership in China, as in most other countries, was not implemented during the modernization of the country's economy after 1949. However, during the last two decades of the post-Mao reform era, mixed ownership has been a part of the political and academic discourse within China, if not always in our own academic literature, and, as the economy evolved, mixed ownership evolved with it.

Much scholarly effort has been spent on describing the Chinese economic transformation and predicting its path. This dissertation draws from several theoretical discussions, organized primarily around Post-Socialist Transitions (PST), Developmental States (DS), and Varieties of Capitalism (VoC), along with a number of related topics. These related literatures, all a part of the long political-economy tradition begun by Adam Smith, David Ricardo, and others during the decline of mercantilism in the 18th century, are each used, separately and together, to inform my research questions and to interpret my data here and throughout this dissertation. Beyond assessing China's development, past and future, this work informs the general question of which factors create a successful developmental model, taking into account both the global systemic environment and state and private institutional arrangements.

I break the reform and revitalization of the Chinese economy down into two distinct periods: the early and late reform eras. For the early reform era, the focus is on the now-classic example of development through transformation and opening of the economy to increasingly

market-based institutional forms, and the enormous growth that was achieved. In particular, I emphasize the early experimenting with hybrid ownership types, including the well-known Town and Village Enterprises, instead of just the more commonly celebrated expansion of the private sector. These developments set the stage for the second section, on the late reform era, which details the shift to the new type of mixed-ownership, corporate firms beginning in the mid-1990s.

A. Theoretical Debates on China's Political Economy

A discussion of a potential Chinese variety of capitalism cannot progress without first establishing that China satisfies the basic requirements of capitalism. The definition of capitalism is not strictly agreed upon, with many scholars in various fields emphasizing different attributes in different contexts. Weber (2003 [1927]), noting that it appears in different forms throughout history, defines capitalism in several parts. First, the “appropriation of all physical means of production as disposable property of autonomous private industrial enterprises.” Second, this ownership of the means of production is relatively freed of “irrational limitations” – notably, those by the state, but also by class- by being controlled by market forces that are sheltered by the calculable rule of law. Third, the market is rationalized to produce the greatest amount of goods, not for personal use, but for sale to and consumption by others. Fourth, the self-regulating market also coordinates labor, in which private individuals are both free and compelled to sell their time for wages. A Marxian definition of capitalism would include here the resulting power relationships between the owners of the means of production, and those without, as well as among individual owners and their relentless competition in pursuit of profit and accumulation of wealth. (Bottomore 1991; Marx 1992 [1867], Wallerstein 1983). Finally, this definition of capitalism is predicated upon the assumption that private actors always pursue

their own self-interest in a competitive setting, preferably acting variously as both buyers and sellers, thus allowing money, the predominant medium of exchange, to circulate (Caporaso & Levine 1992; Heilbroner 1992; Smith 2003 [1776]).

Following the discussion of the key attributes of capitalism above, it is reasonable to ask whether or not China is capitalist at all? Again, this is a contested topic, though this dissertation operates from the assumption that China is capitalist for the reasons that follow. Throughout the reform era, private firms have vastly increased in number, and arguably were the primary driver of economic growth (Lardy 2014; Naughton 1995, 2007; Nee 1989). This dissertation will use the continued presence of private firms as a key indicator that the economy is a variety of capitalism. The Chinese development plan since 1979 has included, at the very least, a limited or modified version of a market to coordinate much of the economic activity for commodity production, and private firms and many SOEs have the autonomy and profit orientation to respond to the market. Labor has shifted away from the agrarian countryside, and into industrial cities. Workers do indeed sell their time for labor, and are alienated to create surplus value for elites who are developing into a proper class of owners (Coates 2000, Amir 2013). China even surpassed the US in number of billionaires as of October 2015 (CNN 2015). Finally, the very fact that China has integrated so thoroughly into the global capitalist system as a peer, or near peer, with core nations, provides a sort of contextual clue to the status of their economy. Frankly, the massive extent of China's production and trade of commodities with other, capitalist, nations, as well as their extensive financial portfolio through a sovereign wealth fund, indicate quite clearly China's key position within global capitalism.

Of course, there are those who disagree with some of the above points. The main arguments against China being capitalist are the persistent role of SOEs and the CPC in the

economy, including the private sector (Coates 2000; Fewsmith 2015; Freeman 2015; Huang 2015, Pettis 2015, Tsai 2015). Lardy (2014, 2015) responds to this by pointing out the inconsistent concern applied to the role of the Chinese state, when the state in nations accepted as capitalism (such as the United States) do much of the same. He argues that a strict regulatory environment and state tax breaks and subsidies to attract private investment is very similar in China to how it is practiced in other capitalist nations. Furthermore, with the rapid growth of the private sector, the ability of the CPC to appoint top leadership is limited to only the largest firms, and most often to those firms in industries that are the most closed to competition. This would leave the huge number of other private businesses to be managed only by their owners, presumably private individuals. To Lardy, there is little doubt that China is essentially capitalist.

The assumption that private firms without state-appointed directors avoid state control can be problematic. Importantly, Huang (2008) claims that economic data in China is too often manipulated, and that the proliferation of firms registered as private, many of which are state controlled despite their registration, may be overstated. This perspective is important, but does not strictly prevent China from being capitalist. Instead, these facts are exactly the attributes that may make China a relatively unique variety of “state capitalism.” This dissertation attempts to further define the complex Chinese political economy by looking at the relationship between SOEs and private firms, as well as the implementation of mixed-ownership firms, which are supposed to combine state and private actors as owners within the firm.

From the narrowest perspective, the development of MOEs in China may seem insignificant: a relatively small part of the economy, over a relatively short period of time, which is only questionably different from the formerly endemic SOEs. Widening our perspective, however, shows us that this institutional innovation emerged from long-running debates on the

relationship between state and economy, on what development is, and on the nature of capitalism. This dissertation engages with debates on these issues, running from Adam Smith and the rise of capitalism, through Marx's criticisms, to their modern descendants in Post-socialist transitions, Developmental states, and Varieties of capitalism theories.

The guiding conceptual framework for this dissertation is that state, or the collection of institutions that exercise political authority within a territory, and economy, the collection of institutions that manage production, consumption, and exchange, are not, and cannot be separated; they each constrain and enable the other, embedded within a given society. Classic debates on this topic do not always conform to this understanding, instead treating state and economy as entirely distinct spheres which neither need nor want interventions from the other. Economics, in particular, enjoyed a long period in which the dominant ideology argued explicitly against state interference in the economy. This occurred over a period that has seen dramatic shifts in the nature of economic production and the relationships between labor and capitalists, core and periphery, and the production of goods and services (Friedman and Friedman 1980).

Political economy, economic sociology, and related fields have argued persuasively against this dogma, stating that not only are state and economy interconnected, but that one cannot survive without the other (Block & Evans 2005; Migdal 2001). The state requires resources from economic activity to run and, often, to maintain its legitimacy in the eyes of its constituents or at least their passive acquiescence. Economic activity, even in rational capitalist, market-led economies, requires the management of accountability, trust in others in the general stability of society (Weber 1922 [1978]). Polanyi expands on this point by emphasizing the socially constructed nature of three fundamental economic elements: land, labor, and money. Each of these, so basic to the operation of economies, is almost always

regulated in some way by state institutions or policies, such that the very idea of a free market is utopian (Polanyi 1944 [2001]).

With this understanding, I look at the evolution of thought on the relationship of state and economy in capitalist nations, and on the various institutional arrangements that have been formed in these nations to negotiate what type of, and how much, state intervention happens in the pursuit of development. This dissertation largely focuses on theories that closely synthesize the state and economy through institutions that provide direct access between the two, either through the integration of political and economic actors, or through the state itself operating as an investor in an otherwise capitalist market.

Leading up to these types of relationships, states and economies have intersected in different ways over time, from mercantilism, to *laissez-faire*, to Keynesianism to neoliberalism. Prior to the industrial revolution, mercantilism was the dominant economic ideology of the Western colonial powers. For nearly three hundred years from the renaissance to the dawn of rational capitalism, this system was one in which the colonial states played a direct and dominant role in the management of their own economies. Indeed, in this period of the dawn of nation states and the early modern economy, the state *was* the economy. Economic historian Eli Heckscher (2013 [1931]) described mercantilism's five aspects: first, the economy served as a system of unification wherein the early nation states could “establish a regulatory order” that operated as a synergistic whole. Second, mercantilism, as economies tend to be, was a system of power that used the economy to promote the political power of the state against a field of competitors. Third, mercantilism operated by way of protectionism, wherein the state leveraged its political power to create the most favorable circumstances possible. Fourth, mercantilism established a monetary system that “viewed development as the vast circulation of money,”

certainly a precursor to later theories of economics. Finally, mercantilism was a particular organization of society that held to the legacy of the medieval past where the interests of the state trumped all other concerns, notably the welfare of individuals.

The parallels between proto-capitalist mercantilist states, and modern China are obvious. For states competing at the first dawn of globalization in the Fifteenth and Sixteenth Centuries, the state needed unity and economic leverage to survive, certainly the case for the current Communist Party regime in China. However, the mercantile era is long past, having been superseded by capitalism as the dominant global economic ideology. First as a chaotic new form, unregulated and prone to shocks, then as the moderately regulated Keynesian variety where the state found itself back in a controlling position. Most recently, the dominant ideology reversed back towards liberal markets, reflecting the balance and flow between the two poles described by Polanyi's "double movement" (1944 [2001]). We have now spent several decades in the *laissez-faire* end of the spectrum, with many countries seeking wealth, yet only a few finding it. It may be that capitalism is due for another reversal, perhaps with China leading the way and hybrid forms synthesizing to form a novel form of capitalism.

For that to happen, the Chinese economy must persist and succeed, with MOEs playing their role, to be seen as an exemplar. Success, in this case, is economic development, but what that means or how it is measured can vary. Gross Domestic Product (GDP), the total dollar value of goods and services moving in the economy, increased 3.34 times, adjusted for inflation, between the beginning of the modern corporate MOE era in 1998 and 2008; urban and rural household income grew by 2.91 and 2.2 times, respectively; government revenue increased 6.21 times; during that same period an estimated 200 million citizens escaped poverty (Wang & Su 2012). Economic development is usually estimated using such macro, national-level statistics;

however, more nuanced measurements are also useful. For instance, despite these positive indicators, some research has shown that gains for a relatively small portion of the nation were not experienced by the immiserated masses in rural, western China. For these people on the outside, inequality has grown faster than in any other recent examples (Riskin, Zhao, and Li 2001; Wang 2008; Davis and Wang 2009; Wang and Su 2012).

In this case, it is difficult to come to a consensual definition about the extent of China's development, other than to say that it *is* still developing, and is doing so with notable energy. From my own experience, I recall a sense of amazement at the entrepreneurial spirit visible while walking in many parts of Beijing, Shanghai, or Guangzhou in 2013 and 2014. Seeing the efforts of individuals and families to make businesses work made me wonder if the sights of the Chinese metropolises today are similar to the sights of the booming post-Second World War New York City that my own parents grew up in. Of the many small business owners – grocers, restaurateurs, barbers, and more – that I interviewed for this project, each operating somewhere between above-board legality and the informal sector, the story was the same: they saw an opportunity, and they emptied their savings in pursuit of it. Most had no prior experience in the industry they were attempting to enter, and they could not afford all of the proper licenses and taxes, but they all knew someone who could help them get started. Sometimes it was a landlord who would rent them space for a tiny storefront despite zoning laws; for others it was a connection to a wholesaler or importer that could provide them with the materials they needed at a better cost; sometimes it was just having a friend to explain the proper way to bribe local officials by keeping some cash and a carton of cigarettes on hand so that they could “forget” to inspect your establishment. In each case, people were trying to find success, and among tens of millions of them, some of them do.

Strategies for economic development, are often ephemeral. Economic growth is dependent upon a host of factors particular to a specific place and time. Resources of many kinds and technology are obvious; comparative advantages in these factors represent natural and social capital that can be turned into wealth, presumably through the processes of free trade and liberal markets. Institutions are equally important, as managing labor productivity, wealth distribution, provision of social goods, or technological innovation can significantly depend on type of government, financial system, education system, openness of government to civil society, and the interaction between all these elements over time. No two countries have exactly the same institutional arrangements and history of those arrangements, such that there is no single, certain developmental strategy.

Instead, *innovations* in these arrangements, just like innovations in technology, are often what give enough temporary advantage to determine which countries rise above their peers. The innovation of expanding a nation's territory through colonization rather than conquest, the innovation of developing an independent and wealthy bourgeoisie to drive the industrial revolution, rather than relying on the institutions of the feudal past; innovations derived from a democratic form of government, easy access to higher education, and shareholder-owned corporations; all of these are examples of changes that helped to usher in periods of strong economic performance in the countries that made the innovations. Of course, many innovations fail to produce the desired development and are subsequently abandoned; command economies led by an authoritarian government ultimately failed to produce sufficient economic growth in both the Soviet Union and in China. Nevertheless, economic development, especially for "late developers" within a given technological era, is about innovation of social, political, and economic institutions. Merely copying the institutions of national exemplars, as many countries

were encouraged to do by prevailing academic thought and public policy during the 1960s, '70s, and '80s “modernization” ideology (e.g. Lipset 1959), unfortunately does not offer the same advantage and did not lead to significant economic growth for most of the countries that followed this path (Cardoso & Enzo 1979; Frank 1970; Huntington 1968).

Thus, for a China so desperately seeking economic development, innovating novel solutions appropriate to the particular needs and capacity of its society was the key to its success. The following sections will describe three theoretical debates about development and the inescapable relationship between the state and the economy, and will emphasize how China fits and advances aspects of each. These theories offer overarching themes which I use to describe aspects of the Chinese economy. I attempt to use these themes to generate sets of “hypotheses” that can be “tested” against each other, but this work is fundamentally exploratory and this sort of analysis may be premature. Nevertheless, these theories offer suggestions about the types of industries and firms that may be connected to mixed-ownership firms.

First, the section on post-socialist transitions focuses on the failed innovation that was state socialism in the Soviet Union (and its constituent territories) and China, and how these states sought to reform their political and economic systems. Each of these states embraced capitalism to varying extents, but their outcomes differed dramatically as each state dealt with the legacy of its recent history in different ways. The second section is on developmental states, an innovative response to the failures of modernization theory which produced the “East-Asian Miracle” for Japan, South Korea, Taiwan, Singapore, and, arguably, for China as well. Within this section, further innovations mark the evolution of the developmental state as each country responded to changing global economic conditions over several decades. The final section is the varieties of capitalism debate, which seeks to classify the differences between major paradigms

within rational capitalist organization. That section compares the modern Chinese institutions with the standard American and European models.

i. Post-Socialist Transitions or Transformations

While China today has some of the elements of capitalism, as discussed above, the legacy of a Soviet-style planned economy, and the transition away from that model, puts China into contrast the industrialized nations, as well as with other developing nations. David Stark (1992) predicted long ago that, for the formerly communist nations, there would be no steady transition to the “end-of-history” capitalist utopianism predicted by leading, Western neo-liberal economists. These nations would not be able to simply forget their past and clone Western capitalist institutions and ideologies, namely, private ownership and a broadly functioning market. Instead, they would adapt the local culture and structures to an equally modified “capitalism” that would enable the country to restart the domestic economy and rejoin the global economy.

The large-scale transformations experienced by these countries have taken one of three pathways: from-above, from-below, and from-without. Which pathway a country chose to pursue depended on a number of factors, both internal and external. Of major importance would be the level of development or economic stability present in the country at the time of transformation. Whether or not the economy -and the citizenry- could survive or support the planned “shock therapy” for long enough to successfully implement capitalist institutions, was not always a serious concern (Gerber and Hout 1998). Of course, the choice was a political one, and depended upon the particular relationships between factions within the national governments. Who would be able to take best advantage of the transition was surely a contested topic, and the ability for classes, both middle- and upper-, to form and advocate for their

positions varied across political contexts (King and Varadi 2002. King 2001). Finally, the opportunities available to each country differed. Nations that bordered Western Europe had both greater access to influential actors advocating for liberal capitalism and wealthy partners willing to help finance the transition and integrate the transforming nation into the regional or global economy (King and Szelenyi 2005).

Achieving capitalism from above (as in, e.g., Russia and Ukraine), was the pathway championed by the neo-liberal consensus of the west, involving rapid, “shock” privatization of state-owned businesses that were then distributed to all citizens or to employees (Kornai 1980; Sachs 1992, 1995; Megginson & Netter 2001; Liberman, Nestor, and Desai 1997). Such a dramatic, revolutionary shift was supposed to distribute public wealth equitably while also encouraging individuals to engage in capitalist thought and praxis. Instead, patrimonial political relationships and widespread corruption in a suddenly deregulated environment, as well as poor management expertise and an inability to compete in a global market, led to asset stripping, industry failure (e.g. manufacturing), and wealth concentration in the hands of political-turned-economic elites in these countries (King 2001a, 2001b).

Capitalism from without (e.g., Poland and Hungary) started in a similar fashion: rapid privatization and guided efforts to create market institutions, but in a significantly different political context. In these cases, the government had previously been weakened by anti-statist and anti-socialist movements, such that communist party elites were not able to retain power. Under the new regimes, the state pro-actively institutionalized and pursued foreign direct investment, especially courting partners that were connected to the state by political and cultural ties. These informal, social factors played a larger role than typical rational-actor, profit-maximization economic factors in determining the levels of foreign direct investment (FDI) that

a country received (Bandelj 2007). Thus, while some privatization was internally arranged, much was directed by external investors who were emboldened not only by the opportunity, but by a newly-found trust for the new regimes. The immediate results for these countries were very different from those of the capitalism-from-above category. This from-without approach gave domestic companies the resources to adapt and, in the best case, to compete on the global market. This in turn supported a consolidation of democratic institutions that limited the politicization of the economy, and protected the liberal market changes from being revoked or corrupted.

China, along with Vietnam, is the main case for capitalism from below. Capitalism from below occurred as a contrast to the prior two methods, and did not involve the outright privatization of state-owned firms at all. Instead, the deregulation of domestic markets for many small-scale, local goods created opportunities for a new class of entrepreneurs. In China, the establishment of a dual-track economy, in which certain firms in certain regions or industries were deregulated and opened to competition and private ownership, generated much of the dynamism that drove economic development in the 1980s (Naughton 1995).

Despite a lack of political support for further acceptance of capitalism, market transition scholars saw this change as marking the beginning of an irreversible process. Based on what they viewed as the experience of one Chinese region, the result would be market capitalism (Nee 1989; Nee & Cao 1999; Nee & Opper 2006). Nee and his collaborators argued that once the state initiates reforms and creates the institutions necessary to support a market, the state begins to lose its advantages as new actors emerge. These new actors, such as “skilled workers, private entrepreneurs, professionals, and managers” (Nee & Cao 2005) are able to leverage opportunities provided by expanded property rights for private individuals to own businesses, and by

competition in the market to operate outside of government authority. As a result, direct state intervention in the economy should disappear in favor of private, market-oriented institutions. Indeed, the vast extent of marketization in China up to the early 1990s was significant, as many indicators suggest the transition away from central planning was essentially complete, and the only barrier to further growth is the lack of *total* privatization, according to other accounts (Yusuf, Nabeshima, & Perkins 2005; Gao 2006; Li 2006).

Despite this, the Chinese state cannot be ignored as long as it controls major economic assets and supports a patrimonial style of economic intervention similar to the “from above” countries. The alternative to market transition theory, above, is the state-centered approach that denies there must be a decline of political control in the economy, even at the firm level, for this transition to occur (Bian & Logan 1996; Zhou 2000). This theory focuses on the ability of political elites to manipulate the economy in order to extract some desired goal. Scholars using this approach tend to focus on individual actors gaining access to larger incomes through leveraging political connections and privilege for private sector jobs (*e.g.* Bian & Logan 1996) but can more generally focus on gaining ownership or control over private enterprises (Walder 1992, 1994, 1995, 2003, 2004; Peng 2001). Furthermore, they argue patrimonial relationships retain great importance in the economy, between state- and economic elites, as well as between different economic elites, in both the regular operation of business, and in increased rates of corruption (Steinfeld 1998; Wank 1999; Ding 2000a, 200b; Lin and Zhang 1999).

To complicate matters, a second-wave of reform in China changed the script; while de-emphasizing some of the “from-below” characteristics, China saw a hybrid transformation as its leaders incorporated aspects of top-down reform. The Chinese economy is not only a hybrid of the modes of transition, it is comprised in part by various hybrid types of businesses during its

transformation. Many authors discussed how the state and economy continue to overlap in post-socialist countries due to the role played by hybrid firms that combine public and private ownership (Nee 1992; Stark 1996; Szelenyi & Kostello 1996; Zhou 2000; Walder 2003). Stark (1992; 1996; Stark and Bruszt 1998) predicted the rise of these hybrid, or recombinant firms, where social networks between and among business and state actors allowed the economy to function during the chaos of the transition to capitalism. In these countries, hybrid firms were only temporary responses to the chaos of the transformational period, and were not meant to see strategic use in the long-term economy over the long term (Hanley, King, and Toth 2002). Town and Village Enterprises (TVEs) in the 1980s represented a Chinese version of the recombinant firm, where local entrepreneurs and political elites could work together in the newly opened economic space to create private firms. Many of these firms would not be successful, and most others would ultimately become private firms during the 1990s, following a similar pathway to the recombinant firms in Eastern Europe (Naughton 1995, 2007).

This would not be the end of hybrid ownership in China, as it was for the other post-socialist states, though the form of a hybrid firm would change in the mid-to-late 1990s to one that directly combines state and private ownership through capital investments in MOEs. The new wave of reform in the Chinese economy has been referred to as politicized capitalism to reference this ability to discard the old planned economy in favor of corporations, markets, and integration into the global economy, without losing state control (Nee and Opper 2006; 2012). In fact, the deployment of hybrid MOEs has been credited for maintaining some elements of the commitment to equality and political support that spread some of the wealth throughout the population. For those fortunate enough to work in MOEs, the continued presence of the state meant better pay. This benefit not only contributed to the creation of a consumer class in China,

but also served to guarantee that this segment of the population is buffered from the inequality that could cause political unrest (Wang and Su 2012).

Szelenyi (2010, also Eyal, Szelenyi, & Townley 1998) describes the situations of the three transitional strategies that have continued to mark China as a unique case. As previously described, the first wave of reforms for these countries was quite different, from the shock therapy and recombinant property arrangements of the Central European nations, and from the shock therapy and crony capitalism of Russia. In addition, economies following all three of these pathways experienced different economic outcomes: rapid growth before a crisis in central Europe; a crisis leading to somewhat more modest growth in Russia; and sustained, if unequally distributed, growth in China up until the present troubles in the manufacturing and the financial markets. As the Chinese economy continues to evolve, there is some concern that the role of the state is becoming more toxic and beginning belatedly to look like the crony capitalism of the early Russian transition.

An interesting question is to what extent has China left behind the socialist past, or is the legacy still determining the future? While the three regions shared the ideological background, political history, and economic stagnation, the difference in strategies and outcomes is stark. Though China experienced a “hybrid” sort of transition through the 1980s and 1990s, in the contemporary era after 1998, its transformation arguably has been much more top-down, with the resurgence of SOEs, the development of MOEs, and a private sector that has not been able to be quite as successful as might have been expected. One potential factor explaining this difference is that the isolationism of late-Mao era China limited the influence of Western neo-liberal thought. This has not been true during the reform era, as many Chinese have had access to Western economic thought, both at home and by studying abroad. Given this capitalist

influence, and the relative “withdrawal” of the state from the economy during the reform era, it is possible to reevaluate China's place in the typology of post-socialist states. If “from above” characteristics are found, even if it was not a case of “shock” privatization, at least the paternalistic and even corrupt arrangements that were prevalent in Russia and Ukraine are present.

Indeed, this is another area with significant research indicating that China does, in fact, deal with these issues. Prior research shows that many of the hybrid sector leaders are active CPC members, what Dickson refers to as “Red Capitalists” (Dickson 2003, 2008; Tsai 2007, 2001). Many of these individuals were career politicians who took advantage of their power and the opportunity to become the first wave of entrepreneurs leading the newly corporatized former-SOEs or their spin-off subsidiaries (*xiaohai*). Some others were private-sector entrepreneurs who had risen to sufficient prominence, often through their own pre-existing political connections and lack of antagonism towards the CPC, to be inducted officially into the party beginning in 2001 (Chen & Dickson 2010). Because of these direct connections to the party, it is certainly possible that these leaders are beholden to securing the interests of the party, first and foremost. According to Dickson’s research, almost 75% of state officials believed that they could control the actions of non-SOE firms.

Of these red capitalists, either former politicians or recently inducted entrepreneurs, an alternative motivation is also possible: self-interest and rent-seeking. Following part of the trend in former Soviet Bloc and Eastern European post-socialist transitions (Szelenyi 2010; Hellman 1998, Myant & Drahoukoupil 2010), the individuals who have taken control of firms have used that power to engage in various forms of corruption, including asset stripping, insider buyouts, land grabs, and nepotism (Wedeman 2003; Yusuf, Nabeshima, Perkins 2005; Shih 2008). Such a

system of “crony communism” provides an obvious opportunity for the hybrid sector to be manipulated in ways that are antagonistic to either or both of development or regime stability (Dickson 2003, 2008). Ultimately, such a system could become more predatory than developmental, and persistent, even widening, inequality in China could be indicative of exactly that. The same research by Dickson cited in the prior paragraph also showed that 68% of business leaders surveyed believed that they could exert pressure on the state system, ostensibly for their benefit, or that of their company. This issue is of significant concern to the CPC, which has engaged in serious anti-corruption programs, especially during the Xi regime, resulting in a number of high-profile cases.

The transformation, of course, is an ongoing process. China at various times, has shown characteristics of all of the different types of PST exemplars. From the corruption and continued presence of the CPC representing transition from above, in addition to the development of a domestic private sector transforming the economy from below, and to the pursuit of foreign investment for many Chinese firms that would contribute to a “from without” transformation, and the hybridization of Chinese firms, the one thing that makes China unique when compared to its post-socialist peers is that it is very much still transitioning nearly forty years after the process began.

ii. Developmental States

Chinese economists and politicians did not limit their search for answers to Western schools of thought. A somewhat different model, the East Asian Developmental State is one that China frequently studied, in particular, the experiences of Japan, South Korea, and Taiwan during the latter half of the 20th century. The major emphasis of these developmental states is

the primacy of the state leadership in creating a rational and productive relationship between private sector experts and state sector bureaucrats to foster growth in targeted industries (Johnson 1982; Amsden 1989; Evans 1995; Oi 1995, White 1999; Leftwich 2000; Fewsmith 2008; Gallagher 2005; Shirk 2007), while encouraging an economic nationalism that generates the political goodwill to support necessary economic policies and domestic business (Breslin 2006, 2007; Hughes 2006; Jiang 2010).

The idea of state-led development certainly did not begin with these countries. At its broadest conceptualization, developmental states trace back at least to the mid-19th century in Bismarck's Prussia and the Meiji period of development in Japan, if not further to the mercantilist nations described earlier. During these periods in these two countries, capitalist control over the economy was limited as state elites, and their attendant bureaucracies, guided economic development. Indeed, in these cases, strong state actors operated in place of an underdeveloped or otherwise absent entrepreneurial class. This was especially true in Meiji-era Japan and in its colonial states, those same states -South Korea and Taiwan - that eventually succeeded as late-developers in the 20th century (Cumings 1984).

The foundational works on *modern* developmental states begin with Johnson's *MITI and the Japanese Miracle* (1982). In this work, Johnson detailed the economic policies of post-Second World War Japan through the middle of the twentieth century and describes it as pursuing a distinctly different process than either an Anglo-American "independent regulator" model or a Soviet planned economy model. During the time period, Japan prioritized development above other concerns and oriented all of its state capacity towards that end. This was done in many ways that went beyond merely regulating the market, including strict controls over foreign currency (and, therefore, imports) and investment, liberal use of tax incentives, a

variety of protections for industries, funding research and development, and the establishment of an elite bureaucracy to manage economic policy. In many sensitive or high risk areas, MITI relied heavily upon state-owned, or public-private mixed corporations.

This bureaucracy, particularly the Ministry of International Trade and Industry (MITI), was designed to be insulated from private and political pressures so that its ministers could identify which industries should be developed and could determine how to achieve the desired development. Importantly, MITI was also a central hub for organizing and disseminating information, both up from businesses and down from the state, in order to coordinate policy and best-practices. These two characteristics, insulation and information, were also identified by Evans (1995) in the Korean example, and were labeled “embedded autonomy.”

Another key element of the developmental state model is the use of policy and the organization of production units for developmental goals. In the case of Japan and South Korea, large family-owned corporations (*zaibatsu/keiretsu* and *chaebol*, respectively) were central to the growth of the economy. In both cases, these companies were primarily focused on heavy industry, including mining, petroleum, chemicals, infrastructure, and steel, while also having a central financial component to manage the other operations. Eventually, these conglomerations also began to focus on technology production and to emphasize export-oriented production while limiting imports (Johnson 1982, Evans 1995, Amsden 1989). These factors constitute the major dimensions of developmental policy, and the management of industry, export, and finance (Haggard 1990; Bernard & Ravenhill 1995, Jeon 1995, Stubbs 2009).

The literature on public-private partnerships (PPP) provides a related investigation of the economic costs and benefits of such hybrid forms. These arrangements, including but not limited to creating MOEs, can maximize benefits to both state and private actors by allowing

each to focus on their core competencies (Cumming 2007; Edkins & Smyth 2006). Additionally, risk is shared among actors and access to stable government funding can provide a safety net during economic hardship (Shen et al 2006). Costs include the possibility for difficulties to arise, as municipalities may work too slowly to enact appropriate legislation or strategies for private partnerships to be viable, or disputes may erupt between state and private actors due to cost/time overruns or false projections or expectations (Algarni et al. 2007; Kumaraswamy and Zhang 2001).

At the broadest level, China has many similarities to the experiences of Japan, South Korea, and Taiwan (Baek 2005; Breslin 2007; Gallagher 2005; White 1998). The Chinese state has effectively positioned itself at the head of the economic environment while managing the interactions between economic actors. Its push for industrialization in general, and export-led industrialization in particular, have influenced China's domestic and foreign policy. Economic nationalism, along with general nationalism, is prevalent across the country. But China's particular institutional arrangements manage these factors in a way that is sufficiently unlike the experiences of the other East Asian nations to question the full application of the concept (Howell 1998, 2006). Even more different is the very decentralization of state control that created multiple "quasi-developmental decision-making centers" that were only occasionally subordinated to a single, common industrial plan (Xia 2000). As a result, the economy has achieved significant growth only in certain regions or industries, with little benefit directed to the large internal hinterland in western China. Despite these differences, I argue that the Chinese state adapted the developmental model to match its own history, needs, and capacities in a global economy much different than the one in which the other nations began.

iii. *Varieties of Capitalism*

The VoC literature classifies the myriad arrangements of institutions and political and economic outcomes within states (Hall & Soskice 2001). VoC scholars establish a continuum of state-economy interaction that includes the institutions of a US-style liberal market economy (LME) on one end, and those of a Japanese or German-style coordinated market economy (CME) on the other end. (Peck & Zhang 2013). Between these two distinct types of capitalism, countries can be placed on the continuum according to the specific details of their own institutional arrangements.

The VoC literature starts by synthesizing prior efforts to compare the experiences and institutions across different national capitalisms, including modernization theory and challenges to it, while also addressing important elements that these debates missed or underestimated. After the end of the Second World War, the focus for most industrialized states was reforming national economies and encouraging rapid growth. For modernization theorists, this was best achieved by having a strong central government that could use various institutional advantages to mold private firms into efficient, modern businesses according to a developmental strategy (Cohen 1977; Katzenstein 1978; Sacks 1980; Estrin & Holmes 1983; Zysman 1983; Cox 1986). The first critique of the modernization perspective claimed that the state is not the only actor. Instead, these scholars saw the main differentiator between capitalisms as the role of labor, particularly organized labor, in its capacity to negotiate with the state to encourage certain social conditions, especially regarding working conditions and wages (Schmitter & Lembruch 1979; Betrger 1981; Goldthorpe 1984; Alvarez et al 1991). The second critique emphasized the role of firms as the key factor. These scholars focused on the institutional arrangements in which

organizations learn from each other and establish relationships of trust to facilitate exchange (Piore and Sabel 1984; Dore 1986; Streeck and Schmitter 1986; Dosi et al. 1988; Boyer 1990; Lazonick 1991; Campbell et al. 1991; Nelson 1993; Hollingsworth et al. 1994; Herrigel 1996; Hollingsworth and Boyer 1997; Edquist 1997; Whitley 1999).

VoC theory then builds on the foundation provided by these works to more deeply describe the range of national capitalisms, and especially to reorient the discussion to the role of firms as the central element of a market-based economy. Firms, even more than other actors, institutions, or organizations, are the primary economic actors. Firms constantly strategize ways to increase competitiveness and profit within the market. VoC describes firms by the types of relationships they have with other actors, including their own laborers and the organizations that represent them; with agents of the state, both regulators and economic planners; and with other firms, as partners and competitors. VoC theorists split firm behavior into two ideal types based upon a firm's capacity to negotiate with other economic actors for its interests. On one end, LMEs favor firms over all other actors and rely on market institutions and mechanisms to coordinate production and consumption of goods. On the other end, CMEs also favor firms, but firm behavior is less reliant upon purely market forces. Instead, relationships with other actors, namely the state and labor, significantly moderate the firm goals away from strict competitiveness and profit-orientation, and towards mutually-agreed-upon strategic goals (Hall and Soskice 2001).

LMEs can be characterized by strictly limited government involvement in market governance, limited regulation or support for individual firms, weak labor organization, and firm managers who are required to maximize shareholder value. The profit motive drives short-term strategies designed to influence stock prices. Individuals, either labor or management, are

similarly enabled to try to make the best decision at any given moment, and to weigh the options of staying, moving, or retraining; there is no sense of obligation for either actor to seek to help the other, nor is there any doubt about the power of management and, ultimately, of the shareholders (Dore 1973, 1987, 2000; Hall and Soskice [eds] 2001; Telen 2005).

CMEs instead will have much closer relationships between firms, workers, and the state where both economic bounties and hardships are shared. Without a strong profit motive, longer-term strategies are acceptable and revenues are reinvested in the company as investments in the employees and the community. As such, employees are treated better, including training programs and career-advancement opportunities, subsidized housing and healthcare, and are expected to be retained by the company for the duration of their careers. Labor is therefore much more often consulted in the management process (Streeck and Yamamura [eds] 2001; Yamamura and Streeck [eds] 2003; Hall and Soskice [eds] 2001; Telen 2005). It should be noted that in countries with such economies these characteristics may be more of an ideal type, applicable onto to a small portion of large, core enterprises, rather than representative of the economy as a whole (Takanashi, 1994; Waronoff 1990).

China, despite having transformed into a largely market-based and profit-oriented economy, defies easy placement on this continuum. Most observers would accept that China is fairly distant from the US model due to having a continued and direct relationship between central state actors and a number of key industries. High government control and state ownership of critical firms might even indicate that China most closely resembles a CME, if not exactly an ideal type like Germany. Instead, Fligstein and Zhang (2009) compares China to France, which has many of the characteristics listed above, as well as significant state ownership of many of the same industries (e.g. automotive and airline manufacturing). Witt (2010),

however, describes China as being closer to an LME because Chinese firms tend to be managed in a strict top-down manner by elite actors who do not include workers or, often, even shareholders in the decision making process. Furthermore, although workers are technically unionized, the union itself is an official part of the government system and, as such does not truly and independently represent the interests of the workers. The debate, naturally, is contentious and the Chinese government's position has changed over time.

The nature of the workplace in China has evolved significantly along with the general political and economic changes. The basic industrial work unit (*danwei*) of the socialist era saw its origin in the state-corporatist nationalist government that made similar policies as those during the Meiji government in Japan a few decades prior (Bian 2005; Frazier 2002). These business units sought to provide well-rounded support for their laborers in an effort to retain and improve the labor force. If anything, this sort of arrangement was expanded upon during the socialist era, when the better off *danwei* were responsible for organizing nearly all aspects of community life, including residence, food, healthcare, and other family needs, as well as pensions and jobs for the children of employees (Frazier 2005). All employees were expected, in fact, required, to remain with the company, a system often referred to as the “Iron Rice Bowl,” and were treated essentially equally with their peers, though not necessarily richly, no matter their place in the organization. Of course, this ideal was often compromised to varying extents by local clientelism between powerful managers and the employees (Walder 1986).

In the early era of reform, many of the newly deregulated or reorganized businesses continued to operate in ways consistent with the CME model. They continued to support their employees in a paternalistic manner, now organized solely between employer and employee, rather than by the government directly (Unger and Chan 2007; Walder 1989; Xie and Wu 2008).

Most businesses relied upon bank loans for capital, rather than looking for market capitalization (Suzuki, Miah, and Yuan 2008). While labor unions are not quite the same, nor as prevalent as in a German-style CME, as of the momentous Enterprise Law of 1988, all SOEs were required to establish Staff and Worker Councils that could negotiate effectively with the empowered managers, even if not all do so (Chan and Unger 2009).

Through the late 1990s and into the 2000s, ever more businesses deviated from these models. The explosion of small, private businesses that had neither the need nor the capacity to operate according to the legacy of the *danwei*, along with the corporatization of surviving SOEs, and their entry into stock markets, saw the dramatic decline of such paternalism. Though the government had explicitly favored a Japanese model in the 1980s and early 1990s, the faltering Japanese economy created uncertainty. In its place, many Chinese economists shifted to supporting American, LME-style organizations, and many workers saw reduced benefits and the loss of lifetime employment (ten Brink 2011; Chan and Unger 2009). Yet, the economy as a whole has not entirely adopted LME practices (Tam 1999, 2000). Bank loans remain the main legitimate source of funding, and the state-owned banks are responsible for monitoring the performance of their borrowers. Furthermore, the state set up the beginning of a welfare system outside of firms and introduced job tenure in the 2007 New Contract Law.

Where MOEs fit into this structure is not exactly clear. Private enterprises, which make up the vast majority of all firm registrations, will continue to operate according to LME demands; similarly, the massive, powerful SOEs have also been compelled by state policy to be more like private firms in order to compete globally, though they have obviously not lost their direct connection to state actors and politics. As mixed-ownership expands, corporate governance in these firms would be expected to be somewhat conflicted between the desires of

state and private actors that share the firm's ownership. Where large SOEs in key sectors serve the state by being successful national leaders (see Amsden 2001, earning huge profits and entering China into global competition, MOEs continue to serve domestic political interests. MOEs carry the legacy of the *danwei* and the commitment of the state to the workers, albeit in a way that attempts to leave behind the legacy of the inefficient institutional arrangements of the socialist era. Most conservatively, this work argues for China's place as being dead center on the LME-CME scale, containing characteristics of both in different parts of the economy. At best, China is off of the linear scale, representing a novel adaptation of capitalism that dynamically employs varied responses to economic, political, and social needs across the economy, a key part of which is the relatively high deployment of hybrid ownership forms.

The attempt to identify a new type of Chinese – or Asian, more generally- capitalism is not unique to this work. This research agenda, summarized by Storz et al. (2013), eschews entirely the LME-CME dichotomy, and the assumptions and expectations deriving solely from Western capitalism that come with it, in favor of classifying Asian capitalism solely by its own characteristics. These characteristics include the historical contexts that are unique to these countries, collectively and individually, and the development and diffusion of innovative ideas and institutions within and among these countries. It is, perhaps, more fair to these nations to break from a Western-centric perspective on what constitutes capitalism, and work should progress in this manner as the relevant attributes of Asian capitalism are identified and understood. For MOEs, which are not yet specific to any one type of capitalism, the role that they play is not yet understood. Because of this, for this dissertation, I will continue to use the LME and CME dichotomy as a guide for showing ways in which the mixed ownership may be implemented.

B. A Brief History of China's Economic Reforms.

i. Early Reform Era: The rise and fall of Town and Village Enterprises.

At its most fundamental level, the discussion of Chinese privatization is about economic and political transitions resulting from the dismantling of state socialism. State-owned enterprises (SOEs), the basic units of a planned economy, proved to be inefficient, many even often “losing as much money as they were making” (Naughton 2008: 19-26). The trick, then, for China, was how to reform SOEs while minimizing the political fallout and maintaining regime stability. The method for doing so, however, was not always agreed upon by all parties. Throughout the 1980s and 90s, Deng Xiaoping and Chen Yun, another major politician, battled for control of the ideology and policy orientation of the government (Fewsmith 1994). Some Chinese economists, influenced by Western economics, debated the proper role of the state in developing the economy, including offering critiques of SOEs’ lack of autonomy, soft budget constraints, corruption, and other flaws in the old system (Dong 1979, 1987; Jiang 1980). This discourse shaped the pace and regional variation that characterizes the Chinese economic transformation.

As discussed in the theory section above, two major perspectives exist on the best method of state-sector reform: “big bang” privatization all at once, and gradual privatization. The Western consensus in the late 1980s and early 1990s favored the “big bang” approach because a gradual, partial reform was thought to perpetuate the existing inefficiencies and send the wrong signals to economic actors (Sachs; Sachs and Woo; Kornai 1990, 1992). This critique calls instead for direct and immediate privatization aimed at avoiding these problems, and completing a market transition as quickly as possible. In contrast to this negative view of gradualism and the

mass privatization that was common in the former Soviet Bloc countries, China favored gradual economic transformation, predicated on trial and error (Green 2005).

This more conservative model of transformation allowed for experiments in reform to begin in many parts of China and in several industries. One notable reform began in China's rural regions with a major restructuring of the agriculture and, eventually, the creation of Township and Village Enterprises (TVEs). TVEs represent the both the cautious birth of official economic reform, as well as the emphasis on some form of public and private partnership. From 1978 to 1996 "TVEs played a catalytic role in transforming the Chinese economy from a command economy to a market economy" (Naughton 1995, 271) by providing a competitor for the SOEs which had stood alone in the economy for decades, and serving heretofore unmet demands. It is important to reiterate that TVEs pushed economic development and marketization, not necessarily privatization of existing SOEs. Instead, TVEs were a significant aspect of growth of a market-oriented private sector from below, in regions where there was little direct competition with SOEs. They were a hybrid form of enterprise combining local state oversight with private household entrepreneurship. This cooperative form would eventually attract capital resources from both local state and private actors to create joint-stock cooperatives in the mid-1990s (Lin et al. 2003; Sun 2003; Liao 2009).

The TVE sector, like the MOEs of today, was not perfectly uniform, and the degree of connectedness between private entrepreneurs, local governments, and collectives varied. Naughton (2007) identifies three regional models of TVE development: the Southern Jiangsu, the Wenzhou, and the Pearl River Delta models. The Southern Jiangsu model TVEs were supported and controlled by local governments and, because of this legitimacy, tended to be larger, better funded, more modern, and longer lasting than other TVEs. Both the Wenzhou and

Pearl River Delta models were both less connected to local governments and relied on individual entrepreneurs, domestic and foreign, respectively. While TVEs flush with foreign capital and contracts successfully pursued export-oriented light manufacturing, the Wenzhou TVEs served a specific purpose in the domestic economy: providing simple consumer goods that were not being sufficiently provided by the SOE sector. This model was the most reliant upon market coordination and individual relationships, but it was also the weakest variety of TVE, more prone to failure without greater state support. The contrast between the greater or lesser extent of state interest in the Southern Jiangsu and Wenzhou models may provide an insight into the way MOEs are formed and treated today.

By the early 1990s the situation for TVEs was not as favorable, partly due to their own success. Over time, so many TVEs were organized- creating millions of new jobs- that they began to compete with one another. Furthermore, as China's economy grew rapidly, and national policy began to emphasize outward-looking, export-oriented economic models, urban SOEs also entered into direct competition with TVEs. This was a competition the TVEs would be hard pressed to win with smaller production capacities and outdated technologies. In the face of this, nearly all such collectives were finally (if only officially for some) privatized by 1997, but not before showing the state that even the decentralized SOE was still problematic, and that real ownership reform was necessary (Zhang 2014).

ii. Late Reform Era: MOEs after the Company Law, WTO accession, and recession.

Roughly coinciding with the decline of TVEs was the take-off of restructuring and corporatizing state-owned enterprises. Transforming state ownership into a shareholding system had been seriously discussed as early as the mid-1980s in papers by prominent Chinese

economists (Dong 1987; Tong 1986; Tang, et al 1990). This led to the establishment of the first share-holding company in 1984 and, two years later, private individuals were allowed to buy an ownership stake in three Guangzhou firms for the first time (Ma 1998, Zhao 1999). Even the idea of mixed ownership as an important concept was recognized early on as joint investments and joint businesses between SOEs, collectives, and private firms were becoming increasingly common during the late 1980s. This occurred even without official recognition by the central state, such as in Special Economic Zones in Shenzhen in 1990 or in Shanghai in 1994. Even without a proper legal framework to define share-holding enterprises, small-scale experiments by local government actors saw their numbers grow to nearly four thousand by 1988. (Kirby 1995; Sichuan 1988; Xuan 1987, Ma, 1998).

The enactment of the 1993 Company Law marked the beginning of a serious effort to establish a modern enterprise system that would include a comprehensive corporate law framework, with the intention of improving a securities market that had been established in the 1980s (Wang 2008). However, efforts at ownership reform were limited and the emphasis was instead on modernizing SOEs by requiring them to be responsive to the market that was simultaneously emerging, instead of serving government functions (*zhengqi fenkai*). As is typical for the cautious central government during the reform era, several different changes were tried in different locations, usually initiated by local governments. General themes included granting companies greater operational authority (*fangquan rangli*) and control over some of the profit they generated, either through contractual limitations on profit remission to the state, or through switching to a tax-based system (Ma 1998, Broadman 1995, Chai & Docwra 1997, Zhang 2014). When SOEs were corporatized, they many remained exclusively state-financed limited liability companies, with legal prohibitions against private investment, rather than being allowed

to attract diverse ownership through state and private capital. As a result, the level state intervention remained high, many businesses did not significantly restructure, and managers continued to be more concerned with securing their political position than with making profit (Ma 1998, Huang & Duncan 1997; Parker & Pan 1996, Naughton 1995). As corporate losses mounted in the early 1990s, bank bailouts and non-performing loans became increasingly problematic for the state; further reforms were necessary.

With the success of the non-state TVE sector already established by the early 1990s, ownership reform, and mixed ownership in particular, fully entered state discourse as a possible solution to the problems existing in many SOEs. SOEs were increasingly being reorganized into share-holding companies with ownership more often including legal persons (*i.e.* other corporations or institutions), and the Shanghai and Shenzhen Stock Exchanges were established in 1990 and 1991, respectively, to enable experiments with private ownership. In 1992, after Deng Xiaoping's famous southern tour, more serious reform efforts were again supported and the “Socialist Market Economy” was officially adopted as the reform goal at the CPC's 14th National Congress in 1993. At this time, Jiang Zemin, then General Secretary of the CPC, began to support the idea of a “socialist shareholding system” wherein an employee's collective and cooperative shares were considered a part of public ownership, rather than private (Jiang 1992).

This rhetorical shift, motivated by the terrible performance of many SOEs, paved the way for serious ownership reform, leading to the “grasp the large, release the small” (*zhuada fangxiao*) general policy, first appearing at the 5th Plenum of the 14th Party Congress in 1995, that led to massive closings and sales of SOEs that could not conform to the expectations of profitability and competitiveness (Bramall 2009). While employment at SOEs had begun to decline in 1992, this era saw a sharp drop in the number of SOEs for the first time during the

reform era. Additionally, at the 15th Party Congress in 1997, the state fully endorsed not only the sale of SOEs, but also the listing of these firms for private domestic and foreign investment (Xiao 1998). With the slow decline of TVEs already under way, the reversal of the anti-private property policy continued an enormous increase in the number of private enterprises, from less than one million in 1995, more than doubling to almost two million by 2000, to nearly six million by 2007 (Nee & Oppper 2012). Some of these were newly established, many others were SOEs whose ownership was transferred, or even TVEs which had been de facto private before but could now take off their “red hat” and legally register as such. This marked a second phase of reform that culminated with China’s accession to the WTO in 2001, enabled by the appearance of China’s acceptance of market institutions and private ownership that Western nations were demanding in the negotiations.

Membership in the WTO was desired by many party elites, including Premier Zhu Rongji, for several reasons, including gaining access to more markets, attracting more foreign investment and partnerships – especially in high tech industries and finance, and to have a greater voice in the ongoing negotiation of the global economy, not to mention ensuring the continuation of the domestic reforms that were still disputed by some party members. Despite that, it was not a swift or certain process; beginning in the 1980s it was debated internally and externally. By 1999, the CPC created a consensus among leading party members on the value of WTO membership and began to negotiate bilateral trade agreements with many countries, including the US and the EU, so that its application would be more likely to be approved. In the end, after more than 1500 pages of specific agreements, China's membership was granted (Prime 2002, O'Neil 2001).

Preparations for entry into the WTO required some of the most significant policy changes since the beginning of the reform period, and accelerated ownership diversification in firms (Liu & Woo 2001). In the seemingly pro-business environment, many private enterprises continued to seek partnerships with government agencies or SOEs at the same time that many SOEs opened up to private investment. Private and MOE sector contributions to the economy continued to grow, with a significant portion of 45 million workers leaving the state sector for the private and mixed-ownership businesses that 26% to 41% of value-added industrial output by 2008 (Lardy 2014; Wang & Yang 2012). This second phase would last until Hu Jintao took office in 2003 (Zhang 2014).

Since around 2006, the tide has shifted back to favoring SOEs. In direct contrast with the culling of many SOEs from the decade prior, the new policies, described as “the state advances, the private retreats” (*guojin mintui*), established a preference for SOEs, or at least state-*controlled* enterprises, to serve as national champions in a variety of industries that were selected to succeed (Naughton 2009, Scissors, 2009). The direction of reform, as managed by the State Assets Supervision and Administration Committee (SASAC), and the reformed State Development and Reform Commission (SDRC), both established in 2003, allowed SOEs to again become “more aggressive and dominant across the economy” (Zhang 2014).

What is unclear about this SOE revival is the extent to which prior ownership reforms, including the lessons about mixed ownership, retain any relevance. While various ideological factions celebrate or bemoan recent trends, discourse on this topic seems too often to be viewed in terms of state versus private ownership. However, mixed ownership remains ideologically supported by the CPC as recently as the 3rd Plenum of the 18th Central Committee meeting in 2013, where it was explicitly named an economic goal by the new Xi administration

(Communiqué, 2014). The reality of the situation remains complex, and mixed ownership is making a comeback during this period and, likely, well into the future.

C. Conclusion

China differs significantly from the specifics of the three theoretical traditions described above. Although state-led development is certainly the case in China, the organizations and institutions do not match the archetypes. China never closely replicated the experiences of its peer post-socialist states, though one wonders if it could be headed down a similar path two decades later. SOEs and state-owned banks do not quite fit the *keiretsu* model, and the singular bureaucratic organization of developmental goals from an agency like MITI is impossible in the face of the regional fragmentation of economic control. Peck and Zhang (2013) contend that even though the Chinese economy seemed to follow a plan for export-led, labor-intensive industrialization, there was never a single, steady, rational plan guiding the Chinese economy. Finally, the politicized nature of business in China complicates its position on the continuum of capitalism varieties. These complexities guide the analyses in this dissertation; Figure 2.1 lists these as they relate to each other and to mixed-ownership.

<Insert Figure 2.1 here.>

Not quite capitalist, nor typical of either a post-socialist or developmental state, what do each of these classification systems mean for this study of China's MOE sector? Each of these perspectives fails to seriously explore the MOE sector in China despite MOEs being a key element in defining the Chinese economy and in relating all three theories. MOEs, which clearly distinguish China's economy from a US-style LME, are more akin to Fligstein and Zhang's comparison of China with French *dirigisme*-style capitalism. MOEs may similarly represent an

alternative to the *MITI* bureaucratic method of allowing a developmental state to achieve the careful balance of embedded autonomy within firms or whole industries. Finally, by making MOEs a stable and important part of the economy for over a decade, China is balanced between the much greater economic slowdown experienced by Central European transition economies after they completed their integration into the global economy as LMEs, and the crony capitalism that captured the Russian transition, and that has blunted their economic growth for decades afterward.

3. General trends in the expansion of Mixed Ownership: 1998-2008

In this first empirical chapter, I describe mixed ownership in the broadest terms and answer the most general research question: are MOEs an important part of the Chinese economy? In order to assess this deceptively-simple question, I show that MOEs are a significant portion of the entire economy and are even better represented among certain “high-value” parts of the economy. I employ descriptive statistics using both firm- and industry-level data from comprehensive national data sets to make the case that mixed ownership is both a widespread feature of the economy such that it can be considered a key feature of a novel variety of capitalism. Additionally, I make the case that registration categories are troublesome categories for academic debates, as they are too prone to rapid shifts in order to take advantage of short-term political and financial benefits at the firm-level. This is a mild criticism of much existing research, which subsequent analyses in this dissertation attempt to address in addition to using ownership registration category.

A. Theoretical Foundation

As previously stated, social science literature, across several disciplines, has spent relatively little effort looking at China's novel MOE system. The three-theory framework that guides this dissertation, Varieties of Capitalism, Post-Socialist Transitions, and Developmental State, does, however, allow for some predictions about the spread of MOEs. Given the general nature of the analyses in this chapter, however, the emphasis is on determining how large the modern hybrid sector has become, and whether this is sufficient evidence to describe China as a new, or relatively new variety of capitalism.

The VoC literature creates a scale between two ideal-type capitalisms, purely market-guided LMEs one end, that operate without regard to state and labor goals; and on the other end a system, CMEs, where market imperatives are moderated by state, labor, and other interest group actions. The relative power of firms to manipulate -and avoid manipulation by- other institutions for their own benefit is critical, and the nature of competing state and labor institutions determines this. These other institutions help to characterize particular national economies, starting with the regulatory and legal framework that firms operate within, and including the presence of industrial organizations and cross-ownership networks between firms that coordinate and advance business interests, and the presence of labor and social organizations to limit the various forms of exploitation of the public that private businesses are prone to make in the pursuit of profit.

Placing China on this continuum is not a straightforward process as its economy has some characteristics of both the LME and CME styles. In general, LMEs should be expected to have minimal, if any direct state ownership, with few SOEs, and use tax breaks, loans, and subsidies in place of capital investment. The intervention of the state into the economy should be limited to providing a weak regulatory regime and a strong contractual legal framework, especially for firms or sectors that the state favors. Organized labor should be relatively weak or nonexistent, and socialization of the next generation of laborers should also be managed by market forces.

In contrast, CMEs would also favor mostly private ownership of businesses, while perhaps having a few state-financed corporations. These few SOEs are likely to be contained only within certain industries, such as natural oligopolies (e.g. telecommunications and finance), state security interests (e.g. military, energy, perhaps food security), public services (e.g. water

and other utilities, education, healthcare), and select core businesses where large SOEs act as national avatars supporting the economy. In addition to direct intervention in these key industries, the state would also support a strong legal and regulatory regime that evaluates firm performance on the basis not only of productivity, but also the interests of labor, the state, and general social goals.

Complementary to the VoC literature, the debates on post-socialist transitions and developmental states provide additional points of comparison. PST scholars utilize a typology of privatization schemes to describe the experiences of the cohort of nations that transitioned to capitalism in the 1980s and 1990s. A few main attributes differentiate the nations: speed of privatization, fairness of privatization, and the fate of the communist party. As can be seen, nearly total privatization was generally expected, whether it happened quickly, or was phased in; whether firms were initially distributed to citizens and workers, or were captured by elites; and whether the communist party remained a powerful part of the newly formed democracies, or it withered away due to public mistrust. China was so different, having started earlier than many, that the careful reforms implemented by central and local state actors were identified as privatization from below because they created a space, if a highly regulated space, for private entrepreneurs to enter into previously impossible business arrangements, including those with local state actors (Young 1998). Eventually, if the private sector was sufficiently freed from the constraints placed upon it by state, it would proceed to grow strong enough to supplant the state sector. However, the complete takeover of the economy by the private sector has yet to happen more than three decades later, and the CPC still has significant authority within the economy.

Corruption remains an important challenge for the CPC to address to this day, but the economy did not experience the same depth of problems that were experienced in the other post-

socialist nations. Large amounts of public wealth may have been transferred to private individuals, either through no-bid sales to powerful party elites, or through low-ball auctions to foreign investors, but does not characterize the overall Chinese transformation. Furthermore, the experiences of, and opportunities available to, private firms created “from below” is not always the same as those of former SOEs which were privatized by the state. Many of these failing or non-essential SOEs saw little change until the mid-1990s when a concerted effort was made to reduce the burden on the state from weak SOEs performance and debt. During this second wave of reforms, well into the transformation period, the opportunity finally arose for large-scale shifts of public wealth to private actors. During the first wave, the opportunities for state actors, then-current or former, to capture valuable businesses was limited to small-scale, local opportunities to take advantage of limited competition for natural resources and manufacturing. During the second wave, it became possible for large, valuable SOEs to be transferred to private individuals as was the unfortunate experience in Russia (Ding 2000b). In neither case, during the first or second reform era, was the privatization process entirely captured by rent-seeking CPC elites. Instead, the development of TVEs and MOEs represented an opportunity to combine public and private resources without risking the negative consequences of poorly implemented privatization schemes.

The developmental state literature describes the experiences of the other late-developing, East Asian nations that achieved dramatic growth from the 1960s through the 1990s. For the purposes of this dissertation, what is most interesting is the type of institutional form used to achieve an integration between state and private actors that does not characterize any other nation. Rather than relying on the communication between a single guiding government agency and a few large, vertically-integrated firms, often including a well-financed bank, to act as

national leaders in targeted industries, the Chinese model also utilizes mixed ownership in many firms across the entire economy. This form of economic guidance allows for the progressive creation of a class of private entrepreneurs that did not previously exist, while maintaining state interests in individual firms' behavior as the state operates as an owner along with any other owners.

To show a developmental state role for MOEs, these institutions should be found most often in strategic industries which the state wishes to rely on to foster rapid development, while also being present in some industries or firms that are simply too important to the state's interests, for public welfare and party legitimacy. This theoretical contribution will be explored fully in the fourth chapter, which specifically looks for evidence of strategic implementation; however, in this chapter it is at least necessary to show that hybrid, mixed-ownership firms have proliferated to the extent that they constitute a meaningful portion of the entire economy.

The data available to this project cannot allow me to directly assess the total institutional environment, nor the specific details of corporate governance within firms. But it can provide a top-down view of the dispersion of ownership types and capital investment patterns across the economy. Based upon a synthesis of the VoC, PST, and DS literatures, this project looks for general patterns in the economy that represent a certain orientation towards one end of the capitalisms continuum; that show a path dependency from the planned economy of the past; and that show a productive symbiosis between state and private actors working for economic development.

In this chapter, I explore the changes in firm registrations over the early modern reform era. Discounting a naïve belief that the economy will conform to theoretical expectations as entirely private or entirely state-owned, I expect to see an economy that is not on the LME-CME

spectrum because MOEs will have such a prominent place overall, but specifically in developmentally important industries, and in large-scale, high-employment, valuable firms. I expect SOEs to continue to play a large role, but to be limited to a few types of industries that the leadership chooses not to entrust even to MOEs. Private firms should be somewhat marginalized, limited to small-scale industries, mostly in light manufacturing and to sectors that support other larger firms.

B. Data and Methods

All of the analyses in this dissertation utilize one or both of the Chinese Economic Census (CEC) from 2004 and 2008, and the Annual Survey of Industrial Firms (ASIF) from 1998-2007, both conducted by the China National Bureau of Statistics. The ASIF began in 1992 but was overhauled in 1998 to improve the quality of the data and to match changes in the definitions of various statistical categories. It covers all state-owned firms and all above-scale private firms (with sales over 5 million RMB) in mining, manufacturing, and public utilities. All told, the subset of the data used for this project has 1,882,329 observations over the 10-year period. However, I pruned the dataset to eliminate firms that had significantly missing information; this reduced the number of observations to 361,450 firm years over 36,145 unique firms. Though this may present some problems of bias against firms that either did not survive or which entered the dataset late, the large remaining sample and the benefits of hard-to-acquire firm-level data outweigh the costs.

The CEC began in 2004 and is conducted every few years; this project uses both the 2004 and the 2008 data, but the detailed 2013 data are not yet available. It provides a holistic view of the economy, across all regions and all secondary and tertiary industries¹. The CEC data include

all legal person units, establishments and self-employed individuals; however, this dissertation focuses on legal person units (described below) to maintain consistency with the ASIF data. The CEC records 3.25 million and 4.95 million corporate legal person units across the two time points; however, the data are aggregated into industries and regions. The CEC organizes its data according to international industrial standards and is available for the 18 main industries and 375 sub-sectors.

The combination of firm-level and industry- or region-level data is a strength of this project. Obviously, usage of firm-level data is very common for the types of questions being asked in this project due to its greater detail and the possibly reduced likelihood that information has been falsified for political purposes. On the other hand, while firm-level data can provide an extremely detailed analysis, the industry level is where state policy often is focused and where both macroeconomic (i.e. policy and market) and microeconomic (e.g. individuals) factors intersect (Schmitter 1990). Additionally, gaining access to economic data for China is often challenging at best, and impossible at worst, so that redacted or extremely limited information are often what is available. Using the two surveys allows me to take advantage of what data are

¹ Primary industry refers to agriculture, forestry, animal husbandry and fishery (excluding services to the above businesses).

Secondary industry refers to mining (excluding mining supporting activities), manufacturing (excluding repair of metal products, machinery and equipment), production and supply of electricity, heat power, gas and water and construction.

Tertiary industry, or service industry, refers to those activities other than in the primary and secondary industries. It includes wholesale and retail, transportation, storage and post, hotels and catering, information transmission, software and information technology services, financial services, real estate, leasing and business services, scientific research and technology, water conservancy, environment and public utility administration, household service, repair and other services, education, health care and social work, culture, education, entertainment, public management, social welfare and social organization, international organization, services to agriculture, forestry, animal husbandry and fishery, mining supporting activities and repair of metal products, machinery and equipment.

available in each. Brandt et al. (2014), in a paper on the challenges and benefits of using the ASIF data set, confirmed that the ASIF matched the reported numbers from both the China Statistical Yearbooks and the CEC at acceptable levels. This allows the results from one to be compared with the other.

In this descriptive, exploratory chapter, the analyses will be relatively simple, including summary statistics and correlations. The term “firm” refers to corporate legal person units, a subset of the standard unit of observation in Chinese economic data, and includes all legally-registered companies (economic units) and their legally-registered subsidiaries. Not included are industrial activity units, which are subsidiaries that have no independent legal registration. Legal person units must meet the following requirements: “(1) They are established legally, having their own names, organizations, location and able to take civil liability; (2) They possess and use their assets independently, assume liabilities, and are entitled to sign contracts with other units; and (3) They are financially independent and compile their own balance sheets” (China National Bureau of Statistics 2009).

For convenience during the following discussion, I group the ownership types of domestic firms into four categories representing the shift from the traditional economic forms of the early, first-wave reform era to the modern reform era (see Figure 3.1). The socialist category includes ownership types prevalent prior to the reform era, including SOEs, collectives, and cooperatives. The Transitional category includes the ownership types that were created during the first wave of reforms, including domestic joint-ventures such as TVEs. MOEs include limited liability and limited share corporations, while Private firms are only those registered as privately owned businesses or privately-held corporations.

< Insert Figure 3.1 here.>

C. Findings

i. Are MOEs a significant part of the economy: What does firm registration tells us?

It is undeniable that the Chinese economy has exploded over the last thirty-five years, and that there have been dramatic shifts in property rights and firm ownership even in just the last fifteen years. Descriptive analyses using the CEC 2004 and 2008 show an economy with rapid growth across all industries. Firm registration grew by 53% between 2004 and 2008, adding over 1.7 million new firms, and would nearly double again by 2013 (China National Bureau of Statistics 2004, 2009, 2014). Every single industry increased the number of firms, and the big winners, Transportation, Information Technology, and Education, more than doubled in size.

This growth was not, however, distributed across all registration categories. The CEC data in Table 3.1 display the number of firms across all registration types, both domestic and foreign. It should be noted here that this dissertation focuses on domestic firms (highlighted in the table) because, beyond accounting for about 97-98% of total firms, the domestic economy is where much of the innovation in ownership is being made. Furthermore, while state and foreign private joint ventures, are not uncommon, their characteristics may vary significantly from domestic-only firms due to additional political considerations for the state when dealing with foreign firms, and the resulting relationships where the Chinese state has somewhat less power over their foreign private-sector partners than typically held over domestic private firms.

<Insert Table 3.1 here.>

Table 3.1 shows the overall significance of both modern reform-era forms of ownership. Private firms, confirming prior analyses (e.g. Lardy 2014), do indeed dominate the growth, accounting for 1.46 million firms and 81.8% of *all* firms in 2008. Their increase of 17.8

percentage points from 2004 to 2008 is essentially *all* of the net gain in firms; this certainly merits the attention the private sector receives in academic and non-academic literature. These expansions have come at the cost of the mostly-irrelevant transitional forms of ownership (domestic joint ventures), MOEs, and even the traditional socialist forms (SOEs, Collectives, and Cooperatives), at 0.18%, 8.2%, and 6.59% of all firms, respectively. The 13.7% decline in socialist forms provided most of the room for private firms to grow as a proportion of all firms. One interesting general observation is the notable contraction of corporate units of nearly all registration types, as the smaller and weaker firms were indeed “released” and, perhaps, consolidated into larger conglomerated corporations as in the experiences of Western advanced industrial nations.

Interestingly, the story is somewhat different when using the firm-level data from the ASIF from 1998-2007. Table 3.2 is much more favorable to MOEs, which grew over this period. These data count MOEs at nearly the same proportion of all firms that as that of the private and socialist forms. Instead of 9.2% of firms reported in the 2008 CEC data, MOEs in ASIF began at 9.41% in 1998 and expanded to 21.6% in 2007. This puts the MOE sector slightly behind the private sector (22.3%, up 15.5 percentage points), and the once again mighty socialist sector (26.9%, down 27 percentage points). Matching the CEC data, transitional firms decline to near-irrelevance (0.81%), but in the ASIF data, the foreign sector, including Hong Kong-, Taiwan-, and Macau-financed firms now account for an enormous 28.2% of all firms.

<Insert *Table 3.2 here.*>

Understanding the vast differences between these two data sets is critical to evaluating the position of MOEs in the economy. One unlikely possibility is that the numbers changed dramatically between 1997 and 1998, the last years of the ASIF and CEC data sets. The more

likely answer is that these differences are driven by the different samples for each data set. The CEC covers *all* legal person units in the secondary and tertiary sectors of the economy, while the ASIF includes only SOEs and other *above-scale* firms – those with revenue over five million RMB (approximately 784,000 USD) - in selected industries. Tables 3.3 and 3.4 explore these two possibilities.

<Insert Table 3.3 here.>

In order to determine if the CEC underestimated the impact of MOEs, or if the ASIF overestimated their impact, Table 3.3 illustrates the proportion of each industry that each of the three major ownership categories represent. According to the 2008 CEC, the private sector dominates seventeen of the nineteen major industrial categories, with firms registered as privately-owned accounting for more than 50% of all firms. This includes all three industries that make up the ASIF data, mining and manufacturing, both over 80% private, and the provision of public goods (electricity, gas, and water) at 52%. Industrial agriculture, public goods, finance, real estate, and environmental management, each of which are *relatively* low in their proportion of private firms, are all industries that have obvious ties to the government, either as natural monopolies or for being strategically valuable. Taken together, the proportions are fairly consistent across industries, except where significant variation is expected. This means that industrial sector does not provide a good explanation for the discrepancy between the numbers in the CEC and ASIF.

Fortunately, the second difference, being above scale (i.e. having annual revenue over 5 million RMB), does explain this difference in a meaningful way. Table 3.4 uses the CEC 2008 data to display the number of firms by ownership registration and annual revenue, in which the first three categories (1 million and below, 1-2 million, and 2-5 million) are “below scale” and

the remaining categories are above-scale firms. Aggregating these categories shows that 18.81% of private firms in 2008 were above scale, compared with only 34.86% of MOEs and 26.41% of socialist-type firms. Mixed-ownership firms are much more heavily weighted towards the top of the revenue distribution than are private firms, and slightly more so than are the socialist-type firms. This table certainly explains the difference between the CEC data, containing below-scale firms, and the ASIF data, which does not, because the ASIF data exclude the majority of non-SOE firms, both private and mixed-ownership, while including all SOEs regardless of size. Thus, even though there are many more private firms than MOEs at all levels, when 81% of them are excluded, compared to only 65% of MOEs, the relative differences will be less pronounced.

<Insert Table 3.4 here.>

Such a massive exclusion might seem problematic, but, while the small-scale firms of any ownership type taken together represent a large proportion of the total number of firms, the above-scale firms represent the largest and more important elements of the economy. Even if MOEs are a smaller portion of the total economy, they are a larger portion of the major firms, as the ASIF data showed (see Table 3.2), when compared to either private or socialist-type firms. This makes MOEs a significant presence in the national economy, worthy of further study. Tables 3.4, 3.5, and 3.6 each validate this claim by showing that MOEs are more heavily represented among the top employers and top asset-holders in China, following the pattern found for revenue in Table 3.4. The MOE sector also accounted for 34.85% of the total revenue for all firms in the data for 2008.

<Insert Table 3.5 here.>

Using firm registration as our indicator, the data throughout this section undeniably show the significant presence of mixed ownership firms into the Chinese economy by 2008. This is true even if the impact of MOEs occurs more in specific parts of the economy, namely the large, above-scale firms with high employment and larger assets, each of which is a simple measure of economic value. That the numbers are growing during this period certainly predicts the continued, perhaps even increasing, relevancy of MOEs in China.

<Insert Table 3.6 here.>

ii. Registration change over time at the firm level.

There is one concern with this data: that registration category, though commonly used, is a problematic metric for academic purposes. One of the experts interviewed for this dissertation, a professor of economics at the Hong Kong University of Science and Technology, asserted that “registration categories are political tools, rather than scientific categories. There are layers of truth that these categories can conceal.” Another professor, this time at Fudan University in Shanghai, even believed that it is too early to study the differences between ownership types because the Chinese economy is still in a developmental period and changes have been rapid, even year to year. These issues can and should be looked at now; this section shows that the Fudan professor is right in that changes in registration are frequent at the firm level.

<Insert Table 3.7 here.>

Tables 3.7, 3.8, and 3.9 use the ASIF data to track how often and when firms changed during the 1998-2007 period. Overall 64.69% of the sample changed its registration from what it was at the beginning by the end of the period; most of these changes (59.41%) occurred between one and three times. 5.28% changed registration four or more times, including sixteen firms

that changed an astounding seven times in only ten years. The average number of changes among all firms was 1.23 over the 10-year period. Excluding firms that never changed, the average number of changes was 1.91 in this period.

<Insert Table 3.8 here.>

Such fluidity in registration certainly looks like firms responding to a chaotic market by pursuing the most favorable political relationships, regulatory environment, or tax status, and this does make the utility of the categories questionable for academic purposes. Table 3.8 shows the number of changes by year, which can yield patterns or spikes in this firm behavior. While the number is fairly stable, in the beginning, there were spikes in 2001 and 2004, and a general increase took place in the latter half over the former. Data from prior to 1998 would be interesting, but this is a good starting point because of the change in policy at the 1997 15th Party Congress to allow small and medium SOEs to be sold to their employees or private owners, a change which enabled the proliferation of MOEs thereafter. The 2001 spike may be related to the additional changes that were made as a part of the demands upon China before its accession to the WTO. The 2004 spike, and the years around it, may be explained by the changing political environment as Hu Jintao took office and instituted the State Assets Supervision and Administration Committee (SASAC) and State Development and Reform Commission (SDRC) to manage his economic agenda. It is reasonably certain that the consistency of changes over the time period rules out simple restructuring of the registration codes, which did not happen every year.

The next question is whether these firms made small changes within a single category (e.g. from private joint venture to a private limited liability corporation, both of which are MOEs), or across one or more categories (e.g. from SOE to private). Table 3.9 shows the pattern

of registration for the sixteen firms that changed seven times. Among these firms, eleven began as traditional type of ownership (either socialist or transitional), two began as MOEs, and three began as private, either domestic or foreign. Four of the firms ended as what they started as despite all of the changes, even across categories. For instance, two of the socialist-type firms, Xuchang County Cement and Xishansheng Electrical and Telecommunications Equipment Factory, changed to a different category, but they each did so in a different way. The former experimented with mixed ownership, while the latter switched to private ownership before both returned to the socialist type. Seven former socialist-type firms wound up as private after switching between being private, MOE, and back to socialist again. Only one firm, Shanghai Huahong Glass Molds Ltd, did not ever leave its initial category, changing seven times but always between different types of foreign ownership. Such a high degree of mobility between registration categories does seem to limit their application in academic work.

<Insert Table 3.9 here.>

iii. Validity of registration: The relationship between registration type and capital.

Having now described the nature of registration as being significantly fluid and subject to self-selection at the firm level or redefinition at the bureaucracy level, I will test the meaning of registration types as they pertain to my desired arguments. For my claim, that the deployment of mixed-ownership firms is novel and important, to be meaningful beyond the numbers reported above, there are clearly some assumptions that I am making about the nature of mixed ownership. I am assuming that MOEs are a genuine locus of state and private interaction and that MOEs should have some of the best characteristics of each. However, if registration types are no more than empty labels that merely indicate political maneuvering and economic

advantage-seeking, then other measures may be more meaningful for my analysis. If registration type alone may have uncertain meaning – at best accurately representing the interplay between state and private interests and capabilities, and at worst artificial categories used to reframe completely state- or privately-owned to manipulate perceptions of the economy – capital source may be a useful addition. Table 3.10 describes the relationship between these two variables in order to assess how closely registration is tied to actual ownership in terms of real money invested in the company. State capital is money from all state sources, including central and local governments, SOEs and their wholly-owned subsidiaries, or state-owned banks. Private capital is, of course, money from domestic private individuals. Hybrid capital is somewhat trickier, in that it is money from domestic corporations which are not entirely state or privately owned. Foreign capital is excluded from this table.

These results range from unsurprising to somewhat problematic. From registration alone, it would be expected that socialist-type firms receive the vast majority of their capital from state sources, whether direct government spending, investment from state-owned banks or SOEs. For privately-owned firms, one would expect that they receive their funding from private sources. These data mostly validate these assumptions; over 80% of socialist-type firms do indeed receive all of their capital from state sources, while almost 70% of private firms receive all of their capital from private sources. If I instead expect firms registered as socialist-type or private to receive at least the majority of their capital (more than 50%) from state or private sources, respectively, then the relationship between registration and capital improves slightly. In this case, to 87% of socialist-type firms receive the majority of their capital from state sources, while 75% of firms registered as private receive the majority of their capital from private sources. It is surprising, though, that large numbers of each registration type receive *none* of their capital from

the expected source: this is the case for 10.8% of socialist firms, of which a few derive 100% of their capital from either private or hybrid sources. Similarly, almost a fifth of all firms registered as private receive no capital from private sources. 16% of private firms received all of their capital from corporate sources, while one-tenth of one percent received all of their capital from state sources. This again poses problems for relying upon registration in academic analyses.

<Insert Table 3.10 here.>

For MOEs it is somewhat more complicated because it could still be considered mixed ownership if it received either all of its capital from corporate sources, or any combination of both state and private capital. Because the registration category “MOE” is not entirely bound to only the corporate capital type, it is not problematic that 54% of MOEs reported no corporate capital. Over 40% of MOEs are entirely state or privately funded, which makes this category questionably useful in an academic analysis because we cannot be sure that the MOE category actually implies a specific form of corporate governance or management priorities. But this does leave almost 60% of MOEs as accurately classified as mixed-ownership, with 20% having entirely hybrid capital, 12% majority (greater than 50%) hybrid capital, 12% majority private capital, and 13% majority state capital. Despite the questionable utility of registration as a category, this analysis further supports the importance of MOEs, which may account for up to 36.3% of all firms in this analysis when mixed ownership is estimated across all three main registration categories.

One final estimate of the fit between registration and capital source is Table 3.11, which shows a simple correlation between registration and all three capital sources. Unsurprisingly, registration is not at all well correlated with any capital source, which supports the results of Table 3.10. The capital sources are, of course, ultimately exclusive, so they cannot be correlated.

<Insert Table 3.11 here.>

D. Conclusion: A Chinese Variety of Capitalism.

This chapter has made the case that mixed-ownership enterprises are more than just a novelty or a passing fad, but are instead a key feature of the modern Chinese economy. This was done in two ways: first, by evaluating the significance of MOEs as a whole *vis-à-vis* the private and socialist-type firms that are more often emphasized; and second, by evaluating my analytical tools to ensure that I am properly understanding MOEs in the first place.

Overall, there is a strong case that MOEs are an important part of the economy. In the ten years covered by the available data, MOEs remained a significant proportion of the economy by firm registrations in both the CEC and ASIF data. They accounted for at least 5% of firms in every industry, and in the low-double-digit percentages for most. Better yet, by 2008, MOEs represented between one-quarter to one-third of revenue, large employers, and firms with large assets. Considering these already impressive numbers, even if MOEs do not dominate the economy at this point, any increases since 2008 would place them as a serious rival to the state and private sectors.

Whether or not such an increase is likely is debatable based upon the data. Interestingly, the two data sets did not indicate the same direction of change over the time period; in the CEC data, MOEs declined slightly as a proportion of all firms, while they increased slightly in the ASIF data. This could suggest an evolving plan for the deployment of MOEs that, after a wide experimental push, is leading to place them in particular industries where they may achieve the best results. If political will remains behind mixed ownership, and it has so far, it would appear that MOEs are not simply a stop-gap, temporary fix on the economy.

A rise in MOEs, it would seem, must come at the expense of either or both private and state firms. If a departure from the path dependency of a post-socialist transition is underway, SOEs would take the loss, while all of the theories I have reviewed (VoC, PST, and DS) would expect private firms to continue to be an important part of a capitalist economy, if that is where China is heading. Therefore, where SOEs remain, they should be concentrated in only the most critical industries, while private businesses could either be widespread (PST) or somewhat marginalized if MOE adoption is extremely widespread (DS). The results in this chapter show that socialist-type firms have declined sharply during the time period, but they remain a sizable proportion of nearly every industry. Private firms experience the opposite trend, growing impressively between 1998 and 2007 in the ASIF, and likewise in the 2004 and 2008 CECs, while these firms absolutely dominate every industry other than finance. If nothing else, when combined with other relevant factors (see discussion on p, these data show that the proportion of firms registered as private, or at least not as state-owned, is high enough support the inclusion of China as a capitalist country, and progressively more so every year.

It is likely that we will see a continuation of mixed-ownership in the coming years. Just the establishment of MOEs as both significant and durable, I argue, is sufficient evidence to claim that a novel form of capitalism is being developed in China. It is a variety mostly unlike LMEs, with at least a resemblance to a CME in terms of bending the market to political will. Instead of fostering strong labor unions, business associations, and state organizations to facilitate dialogue, the hybrid sector could serve a means to put the state into direct contact with capitalists and employees within a firm. This type of organization could work well to stimulate synergistic coordination between these disparate actors, and would operate in a manner that is closer to the typical socialist model - with state representatives ever present to ensure that the

aims of the political will are realized- than to a democratic model that relies on civil society organizations to advocate for their interests.

For an economy to be one functioning within a proper developmental state, even if in a novel institutional form, there should have to be a dedicated concentration of MOEs in strategically-valuable industries. The present analyses instead show a changing, yet still widespread distribution of MOEs throughout the economy. To further the investigation of this question, the analyses in Chapter Four attempt to discern patterns in the implementation of MOEs.

The final analyses in this chapter focus on the questionable usage of registration information, in this project and in most other research on the Chinese economy. Obviously, such data is available and the categories fit into theoretical typologies. But it is questionable to what extent registration means anything for the actual ends and means pursued by firms. In fact, the results above suggest that registration is an incredibly fluid attribute, changing frequently and almost certainly not correlating to any changes in capital sources or in whether managers are private individuals or state officers. Firm registration likely reflects little more than the needs of owners to take advantage of new tax laws, finance sources, or regulatory codes as the economy changes from year to year. Because of this, it is likely more useful to rely on capital data for theoretical application, as capital sources, while potentially changing over time as well, should stay within the interpretations that we can expect state, private, and mixed ownership to have. To be fair, however, we have to use the data that are available, and registration is at least a useful estimation of ownership, despite its flaws.

To address this problem, in Chapter Four, regression models using the ASIF data will be tested with both registration and proportional capital as the dependent variable. To align capital

with the registration categories described in Table 3.1 above, SOEs and private firms will only be counted in the case of firms that have 100% of their total capital coming from state agencies or private individuals, respectively. The MOE category is slightly more complicated, and include any firms with some combination of state and private capital, as well as all firms with any amount of corporate capital. Corporate capital is money invested by a legal person unit into another business, and is used here to represents the firms, which may have mixed-ownership themselves, that act according to a market, profit-seeking motive to invest in the stock market. Therefore, if a firm is financed in part or in total by another MOE, then it would also be classified as a MOE. Transitional firms, including various domestic joint-ventures, are excluded as being both a tiny and diminishing portion of the economy, as well as not being theoretically relevant. For a summary of these categories, see Figure 3.2 below.

<Insert Figure 3.2 here.>

Figure 3.1 Typology of Firm Registration Categories

	Traditional	Modern
Pure	Socialist (SOE, Collectives, and Cooperatives)	Private
Hybrid	Transitional (Domestic Joint Ventures such as TVEs)	Mixed-Ownership Firms (Limited Liability and Limited Share Corporations)

Table 3.1. Growth in Number of Firms by Ownership Registration, CEC 2004 and 2008.

	CEC 04		CEC 08	
	Firms	% of Domestic	Firms	% of Domestic
State-owned Enterprise	178751	5.77%	25702	1.44%
Collective Ownership	342569	11.06%	65541	3.68%
Joint Stock	107021	3.46%	26115	1.47%
Joint Venture – SOE	2834	0.09%	419	0.02%
Joint Venture – Collective	6189	0.20%	1535	0.09%
Joint Venture – State & Collective	2756	0.09%	476	0.03%
Joint Venture – Other	4720	0.15%	863	0.05%
Limited Liability Corporation (LLC) – State	9725	0.31%	1935	0.11%
Limited Liability Corporation (LLC) – Other	345359	11.15%	143182	8.04%
Limited Stock Corporation (LSC)	60865	1.96%	24586	1.38%
Private Ownership	667084	21.54%	714243	40.10%
Private Partnership	143970	4.65%	107893	6.06%
Private LLC	1099228	35.49%	600421	33.71%
Private LSC	71826	2.32%	34725	1.95%
Other Domestic Firms	54662	1.76%	33601	1.89%
HK/MC/TW JV	23707		15258	
HK/MC/TW Coop	5429		2389	
HK/MC/TW Private	44236		38411	
HK/MC/TW Ltd Share	955		1296	
Foreign Joint Venture	30392		22936	
Foreign Joint Stock	4959		2173	
Foreign Private	40830		38507	
Foreign LSC	1275		1173	
Domestic Total	3097559	100.00%	1781237	100.00%

Table 3.2. Growth of Number of Firms by Ownership Registration, ASIF 1998-2007

Registration 1998	Registration 1998			Registration 2007		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
SOE	8427	23.31	23.32	5453	15.09	15.09
Collective	8205	22.7	46.02	2876	7.96	23.04
Coop Stock	2833	7.84	53.85	1395	3.86	26.9
JV – SOE	124	0.34	54.2	60	0.17	27.07
JV – Coll	183	0.51	54.7	62	0.17	27.24
JV – S&C	291	0.81	55.51	116	0.32	27.56
JV – Other	66	0.18	55.69	55	0.15	27.71
LLC – State	235	0.65	56.34	539	1.49	29.2
LLC – Other	1915	5.3	61.64	5784	16	45.21
Ltd Share	1250	3.46	65.1	1494	4.13	49.34
Private	1003	2.78	67.87	1754	4.85	54.19
Private partnership	277	0.77	68.64	341	0.94	55.14
Private LLC	1019	2.82	71.46	5551	15.36	70.49
Private Ltd Share	147	0.41	71.87	415	1.15	71.64
Other	36	0.1	71.96	60	0.17	71.81
HK/MC/TW JV	2500	6.92	78.88	2069	5.72	77.53
HK/MC/TW Coop	593	1.64	80.52	420	1.16	78.69
HK/MC/TW Private	2209	6.11	86.63	2510	6.94	85.64
HK/MC/TW Ltd Share	65	0.18	86.81	71	0.2	85.83
Foreign JV	2806	7.76	94.58	2437	6.74	92.58
Foreign Coop	372	1.03	95.61	346	0.96	93.53
Foreign Private	1541	4.26	99.87	2231	6.17	99.71
Foreign Ltd Share	47	0.13	100	106	0.29	100
Total	36144	100		36145	100	

Table 3.3. Proportion of Firms that are Private, MOE, or Socialist, by Industry. CEC 2008.

Industry Category	Private		MOE		Socialist	
Total	3596423	75.33%	648559	13.58%	399142	8.36%
Agriculture, forestry, animal husbandry, and fishery	499	35.98%	99	7.14%	739	53.28%
Mining	77505	80.10%	8628	8.93%	8463	8.75%
Manufacturing	1402717	82.85%	159216	9.40%	96522	5.70%
Electricity, gas and water production, and transmission	30058	54.01%	7611	13.68%	16324	29.33%
Construction	153301	68.11%	47726	21.20%	19929	8.85%
Transportation, logistics, and storage	95945	66.41%	23749	16.44%	20198	13.98%
Information Technology, computer hardware and software	115565	83.08%	15556	11.18%	3760	2.70%
Wholesale and retail	1053473	76.01%	190277	13.73%	104287	7.52%
Accommodations and catering	97296	71.40%	15337	11.25%	17830	13.08%
Finance	7048	27.36%	12079	46.89%	6075	23.58%
Real estate	107642	53.60%	63328	31.53%	25612	12.75%
Leasing and business services	238402	67.97%	58803	16.77%	39808	11.35%
Research, technical services, and geological prospecting	77705	64.12%	23195	19.14%	15807	13.04%
Water conservation, environmental and public facilities management	12209	56.35%	4572	21.10%	4066	18.77%
Residential and other consumer services	80325	76.31%	10933	10.39%	8835	8.39%
Education	13825	65.31%	2019	9.54%	2551	12.05%
Healthcare and social welfare services	9973	63.04%	822	5.20%	3022	19.10%
Culture, athletics, and entertainment	22935	66.89%	4609	13.44%	5314	15.50%

Table 3.4. Proportion of Firms that are Above and Below Scale by Registration Type, CEC 2008

Registration	Number of Firms	Annual Revenue Below Scale (RMB)			Annual revenue Above Scale (RMB)				
		Less than 1 million	1-2 million	2-5 million	5-10 million	10-20 million	20-50 million	50-100 million	More than 100 million
Private	3596423	1421519	517424	980879	249148	197657	124691	57457	47648
Percent of Private		39.53%	14.39%	27.27%	6.93%	5.50%	3.47%	1.60%	1.32%
Mixed Ownership	648559	233425	70258	118830	57264	52490	47705	27534	41053
Percent of MOE		35.99%	10.83%	18.32%	8.83%	8.09%	7.36%	4.25%	6.33%
Socialist	399142	165022	47993	80694	29663	27121	21274	11216	16159
Percent of Socialist		41.34%	12.02%	20.22%	7.43%	6.79%	5.33%	2.81%	4.05%

Table 3.5. Proportion of Firms that are Small and Large Employers by Registration, CEC 2008.

Registration	Number of Firms	Small Employers		Large Employers							
		7 or fewer	8-19	20-49	50-99	100-299	3-499	500-999	1000-2999	3000-4999	5000 or more
Private	3596423	1500219	1114699	641928	198089	111577	16245	8929	4031	444	262
Percent of Private		41.71%	30.99%	17.85%	5.51%	3.10%	0.45%	0.25%	0.11%	0.01%	0.01%
Mixed Ownership	648559	222697	167353	119343	56375	50749	12852	10179	6781	1173	1057
Percent of MOE		34.34%	25.80%	18.40%	8.69%	7.82%	1.98%	1.57%	1.05%	0.18%	0.16%
Socialist	399142	139899	99765	77040	34824	29446	7508	5700	3737	679	544
Percent of Socialist		35.05%	24.99%	19.30%	8.72%	7.38%	1.88%	1.43%	0.94%	0.17%	0.14%

Table 3.6. Proportion of Firms with Large Assets by Registration, CEC 2008.

Registration	Number of Firms	Firm Total Assets (Yuan)							
		Less than 500,000	500,000-1 million	1 million-5 million	5 million-10 million	10 million-50 million	50 million-100 million	More than 100 million	
Private	3596423	10810837	53	666888	1252942	269074	251184	39469	33113
Percent of Private		30.13%	18.54%	34.84%	7.48%	6.98%	1.10%	0.92%	
Mixed Ownership	648559	135023	83480	180596	66660	105234	28909	48657	
Percent of MOE		20.82%	12.87%	27.85%	10.28%	16.23%	4.46%	7.50%	
Socialist	399142	109437	47967	116860	37445	52238	12460	22735	
Percent of Socialist		27.42%	12.02%	29.28%	9.38%	13.09%	3.12%	5.70%	

Table 3.7. Number of Firms Changing Ownership Registration, ASIF 1998-2007.

Registration Changes	Number of Firms	Proportion of all firms
1	10339	28.60%
2	7478	20.69%
3	3661	10.12%
4	1385	3.83%
5	413	1.14%
6	95	0.20%
7	16	0.04%

Table 3.8. Number of Firm Registration Changes by Year, ASIF 1998-2007.

Year	Total Registration Changes	Number of First-time Changes
1999	3887	3887
2000	3707	2890
2001	6005	3941
2002	2948	1587
2003	5869	3831
2004	10666	5160
2005	6198	2638
2006	4887	1706
2007	5396	2739

Table 3.9. Pattern of Registration among Frequently-changing Firms, ASIF 1998-2007.

Firm	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<u>Dadong</u> City Foreign Trade Friendship Plant	T	T	F	T	H	H	H	H	F	P
<u>Jiangdu</u> Car Tank Factory	T	T	P	T	H	P	T	T	P	P
Su Antenna Corporation of Taizhou	T	F	P	P	P	P	P	P	P	P
Hefei High Voltage Switch Factory	T	T	T	H	T	P	P	P	P	P
Wuhu County Electromechanical Equipment Manufacturing	T	H	H	P	X	H	P	P	P	P
<u>Zhuhe</u> Wire Factory	T	T	T	T	T	T	P	H	H	P
<u>Jinkouhe</u> Leshan Wide Smelter	T	P	P	T	T	H	T	P	H	P
Shandong <u>Wuzhou</u> Textile Company	F	F	P	P	P	P	P	P	P	P
Shanghai Light Bus Factory	X	T	X	T	T	T	T	T	P	T
<u>Xuchang</u> County Cement	T	H	H	H	H	T	H	T	H	T
<u>Xishansheng</u> Electrical & Telecommunications Equipment	T	T	P	P	T	P	T	P	T	T
<u>Chint</u> Paper Company	H	T	T	T	H	T	H	T	P	T
Four Sand Ltd.	H	H	T	T	T	H	H	T	H	H
<u>Xinhuihe</u> Particulate Nutrient Feed Mill	T	T	T	T	T	H	P	H	F	H
Shanghai <u>Huahong</u> Glass Molds Ltd	F	F	F	F	F	F	F	F	F	F
Zhengzhou Star Machine Company	P	H	H	P	P	P	H	P	H	F

T= Socialist, X = Transitional, H = MOE, P = Private, F = Foreign

Table 3.10. Relationship between a Firm's Registration and their Source of Capital, ASIF 1998-2007

Registration	State Capital			Private Capital			Corporate Capital		
	100%	>50%	0%	100%	>50%	0%	100%	>50%	0%
Socialist	54036	4443	7243	418	3160		6071	112	
Percent of Socialist	80.60%	6.60%	10.80%	0.60%	4.70%		9.10%	0.20%	
Private	68	69		35882	3390	9930	8316	2796	
Percent of Private	0.10%	0.10%		68.40%	6.50%	19.00%	15.90%	5.30%	
MOE	8292	8174		16135	7094		11853	7226	32315
Percent of MOEs	13.70%	13.50%		26.70%	11.70%		19.60%	12.00%	53.50%

Number of firm hours: Socialist- 67021, Private- 52447, MOE- 60454

Table 3.11. Correlation between a Firm's Registration and its Capital Source, ASIF 1998-2007

	Registration	State Capital	Corporate Capital	Private Capital
Registration	1			
State Capital	-0.04	1		
Corporate Capital	-0.01	0.04	1	
Private Capital	-0.02	0.07	0.06	1

Figure 3.2. Typology of Firm Capital Sources

	Traditional	Modern
Pure	Socialist (100% State capital)	Private (100% Private capital)
Hybrid	Transitional (excluded)	Mixed-Ownership Firms (Any)

4. Patterns of Development: Implementation of Mixed Ownership across Firms and Industries.

In the prior chapter I established that mixed-ownership makes up a significant, if relatively unexamined, category of Chinese businesses. Furthering this investigation of MOEs, the resulting questions are whether or not MOEs have spread throughout the economy in a rational, intention way, and, if so, for what purpose or strategy. This chapter uses both industry-level and firm-level to look for patterns in the implementation of mixed-ownership; the latter as an in-depth look into the economic histories of firms in the extraction, manufacturing, and energy industries; and the former as a broad analysis across industries using amalgamated data. Strategic implementation was not well supported, leading to the conclusion that, despite the notable and frequent claims by the Chinese state supporting the implementation of mixed ownership, MOEs at presently are fairly haphazardly distributed.

A. Theory and Hypotheses

The three theoretical debates guiding this dissertation are post-socialist transition (PST), developmental states (DS), and varieties of capitalism (VoC). Each of these provide options to establish the rationale behind implementation of mixed ownership, some of which may overlap. In particular, PST, if taken as the state-guided, from-above or hybrid variants, and DS can provide very complementary views on the expansion of MOEs, explaining the complexities of a Chinese government managing its socialist past by maintaining significant state control but, perhaps in the manner of the successes of its neighboring countries. Combining these with the VoC literature would place China on the Coordinated Market Economies (CME) end of the spectrum of capitalisms, with deployment of MOEs acting as the differentiating feature. The proponents of the capitalism-from-below and from-without versions of PST, in emphasizing the expansion of private entrepreneurs,

domestic or foreign, mesh very well with the description of China being somewhere closer to the Liberal Market Economies (LME) variety of capitalism, such as the US, although it is hard to argue for China representing anything more than a very moderate LME even if it is accepted that they are capitalist at all.

Each of these theories, and the ongoing debates within them, lend themselves to making various specific hypotheses about the strategies of ownership in the Chinese economy. These hypotheses will be organized firstly according to the VoC debate to place China as an LME or CME. Within these two opposed categories, I can then attempt to add a layer of complexity with the PST and DS theories. On the side of LMEs, the socialist legacy should be minimized in favor of primacy of private actors in key parts of the economy. On the side of CMEs, the socialist legacy should play an active role, with state and mixed-ownership serving critical economic functions. Similarly, to satisfy DS institutional requirements, the state should retain an active role; but, perhaps, MOEs should be distinct in order to separate a DS strategy from other types of CMEs.

Using the indicators available from the Chinese economic data, I have organized the hypotheses according to the theoretical debates that guide them. Although the emphasis is on the implementation of MOEs, understanding their role requires comparing them to traditional SOEs that still dominate many sectors of the economy, and to the private firms that make up such a large proportion of all registered enterprises. Obviously, no case can be made that MOEs are taking over the entire economy, nor even that MOEs are replacing SOEs. Instead, the novelty would be in the dynamic way that the Chinese state uses all three types of ownership in ways that take advantage of their respective strengths, while minimizing their weaknesses. Given assumptions that SOEs are inefficient, they would be sequestered to industries or firms that could support them; given that private firms are less responsive to state directives, they would be banned from industries deemed too sensitive or critical to the state;

and for industries that somehow fall in between the political and economic necessities, MOEs would serve to unite directly the interests of state and private actors. The hypotheses are organized into three categories: CME/Privatization from above, LME/Privatization from below, and Developmental States/Hybrid Transformation.

As discussed in the second chapter, PST theories include a variety of archetypal pathways that states may follow. China is often used as the exemplar of privatization-from-below, wherein a new and growing class of private entrepreneurs are able to develop, withstand a regulatory environment that is not entirely favorable to them, and ultimately succeed so thoroughly that the political-economy of the nation must follow them on to some version of a LME. In some ways, this was the story of the early reform era, in which locally-organized experiments in cities across China's coast gave citizen's unprecedented opportunities to engage in economic acts. Accordingly, the LME/Privatization from below perspective expects to see the majority of the economy led by private firms, and by private capital. For each variable, other than age, private registration or capital should be positively associated, while age should be negative to indicate that the state is moving away from both socialist and transitional ownership, toward full privatization.

A LME result would be incredibly unlikely at this point in time. The period covered by these data (1998-2007) saw a tightening of state expectations for SOEs and many were privatized, hybridized, or shut down entirely. Nevertheless, as shown in chapter 3 of this work, there is no question that both SOEs and MOEs remain a major part of the economy; so much so, that China may more closely resemble a CME. China may be developing towards the experiences of the PST from above, with the notable exception of the “shock” privatization. Instead, the key characteristics of the from-above approach as relevant to China are the continued strength of the CCP, privatization or hybridization that benefits party members, and widespread corruption. As the inverse of the LME

outcome, the CME outcome expects that SOEs remain dominant, while private firms are at the bottom of every category, essentially on the fringes of the domestic economy, with large number of individually small, relatively insignificant businesses. Where SOEs have given ground during the transition, the gains would be found in the rise of MOEs, rather than the private sector. The role of MOEs would be to serve as partial privatizations to serve state needs, including the enrichment of state officials, but also to serve interests that are at odds with strictly financial decisions. In this case, SOEs chase profit first and foremost, while many MOEs instead support businesses that are not profitable, but which may have high employment or are in impoverished areas. Because of their hybrid nature, combining state and private investment, MOEs serve as an investment “opportunity” that the growing Chinese middle class is looking for, while defraying the direct cost to the state for supporting the less-profitable parts of the economy. Designated core industries, such as finance, steel, and automotive, and industries critical to state security, including energy and food production, would be the sole responsibility of SOEs. New registrations would be focused solely on MOEs, as weak SOEs have already been culled and the private sector growth of the 1980s and 1990s is curtailed.

Finally, the hybrid path of transition, associated with a cooperative developmental state model, fills the middle ground between LME and CME, or between from-above and from-below transformations. In this outcome, MOEs are strategically deployed strictly for developmental goals, filling the role of the Japanese *kaeretsu* or South Korean *chaebol* by acting as a meeting place for entrepreneurial spirit, management experience, and market knowledge, with state bureaucratic regulatory and financial authority. Similar to the CME/from-above model, the hybrid model expects wide gains for MOEs in all of the key areas, likely with losses for the private sector overall. The main difference is that the state sector is contracting with the exception of a few giant SOEs leading critical industries, notably finance where state bank loans are a major source of funding, and those serving state

security. For all other industries, following the recent rhetoric of the CCP, MOEs should be leading the way.

It should be mentioned that the transition from without method is not included in this analysis. While China certainly is seeking foreign direct investment for many of its industries, the relationship between the Chinese state and foreign firms and capital is different than with domestic firms and capital. The regulatory environment can be much stricter, limiting the access and behavior of foreign owners. Furthermore, foreign capital remains a relatively small part of the economy as a whole, and the Chinese firms are firmly entrenched within the global economy even without considering FDI as a result of their relationship with contracting along global production chains.

In addition to the broad categories, a specific developmental strategy may be relevant here. The MOE sector could play a more indirect role by ensuring that necessary inputs to desired industries are readily and cheaply available to other domestic firms. This strategy of down streaming is prior to industrial upgrading and serves to enable the manufacturing sector to pursue more advanced or profitable industries that otherwise would be impossible to support. Within a given production chain, anything that precedes a final product or contributes to the production process can be considered as an upstream industry (Ciccantel & Bunker 2005; Naughton 2007, Smith 2005). Thus, what is upstream or downstream is nested within a dense network of production; for a microwave, metal screws may be upstream, but for the screws the metal processing is upstream. This makes it difficult to define an entire industry as up- or downstream within manufacturing. There would always be a focus on primary and secondary extractive industries (e.g. mining ore, steel production), but other aspects of the economy further support the development of new or more lucrative businesses. Transportation and infrastructure, including power generation and transmission, are critical in order to provide the necessary inputs for the advanced industries are desired, as well as business services such as information technology and

consulting, and a host of industry-specific support businesses that may grow to serve very narrow needs of companies.

This dissertation will use this somewhat expanded view of what an upstream input is, in order to see if the state, directly or through MOEs, takes on a somewhat more “back-seat driver” approach to generating economic development. An LME approach certainly expects the inexorable march of privatization to include these industries, while the CME approach would expect that the state to forgo the low-value manufacturing of parts, while holding on to extractive industries that involve either valuable property and mineral rights, or the use of expensive technologies best suited to large-scale SOEs. The hybrid approach sees both of these as opportunities for MOEs to play a supporting role, while leaving either or both of SOEs and private firms to reap the benefits of cheap and efficient provision of necessary inputs.

Though transportation and logistics can be considered to be a supporting part of the economy, it sits in a very interesting place in terms of ownership and scale. As with any industry in China, the transportation industry evolved since the late 1970s. Prior to economic reform, this industry was dominated by state-owned businesses with a three-tiered, top-down structure (Luk 1998). The reform era saw this structure broken down over time so that domestic firms, and foreign firms after joining the WTO, could compete for business (Luk and Sherriff, 1998; Pyke et al., 2000). While private firms were allowed to operate, local city and regional governments were eventually allowed to create their own bureaucracies to plan and manage transportation and logistics in their geographic or industrial domain (Zhang & Figliozzi 2010). The Chinese state selected the transportation industry to be a “pillar” industry, which should mean that there will be a more significant role played by SOEs and state-capital dominated MOEs. Capital intensive projects, and projects that go beyond local jurisdictions (e.g. rail- and highway systems) make sense to be controlled by the central government. The strategic value of

controlling the movement of necessary goods, or at least controlling critical “choke points”, like major seaports and airports, provides another reason for state domination of transportation, especially at points of international transportation. But the transportation sector also encompasses a wide range of services, many of which are locally embedded. Short-distance shipping is also just as important as long-distance shipping in manufacturing clusters that have many local firms supporting one another with moving material inputs downstream, and even for reaching local markets. Finally, municipal passenger transportation is necessarily linked to a local city or region, which should impact who controls these services. At present this sector continues to be both inefficient and unable to keep up with demand as the economy rapidly expands (Waters 2007). High costs and serious congestion can create an opening for private and mixed-ownership firms to enter, either as direct competitors to existing firms, or as suppliers of support services that can make the industry more efficient. However, central and local state protectionism can also be a concern.

Public, private, and mixed-ownership will also be assessed across regions to look for any potential patterns that separate regions or may indicate a central government strategy. The state is often described as a monolithic entity that can single-handedly attain economic growth or ruin (e.g. Solinger 1996; for how the developmental state is often treated, see Evans 1992, White & Wade 1988). However, it may be difficult to discuss the Chinese state, or that of any socialist country, as a unitary actor. Instead, the “state” is more like an “ensemble of distinct bureaucratic entities that are in a constant state of bargaining and competition to exercise control over assets or capture flows of revenue from them” (Kornai 1992, Ma & Wei 1997, Walder 1992, Walder et al 2011). Central state actors have varying levels and domains of oversight and local politicians have varying needs and ideologies. This results in different institutional regimes around China, ranging from an “arm’s length to a

developmental state to a pre-corporatist state across China's regions" (Krug & Hendrischke 2008; Fligstein and Zhang 2010, Wei 2013, Yang 2012).

This dissertation treats the coastal region as the point of comparison; the coast is the wealthiest, most industrialized part of the country, and has led the way in the creation of Special Economic Zones and experimentation with different economic arrangements. As the earliest beneficiaries of the economic reforms, if the private sector were to be entrenched anywhere it would be in the coastal regions with the nations wealthy elites. However, as home to many of the largest, most valuable firms, it could instead be the case that SOEs, and to a lesser extent MOEs, have maintained dominance in these regions. Finally, the outward orientation of these regions, both in export-led development and in the relatively recent outward expansion of domestic firms, these regions may be home to the most modern, corporatized businesses, benefiting from mixed-ownership arrangements while lingering SOEs and private-sector firms are confined to other parts of the country. Obviously, each of these predictions represent ideal types, since the largest, most well-developed cities in the country are certainly going to contain a mixture of all three types of businesses. Each of these hypotheses are displayed in figure 4.1, below, grouped by the theoretical foundation.

<Insert Figure 4.1 here.>

B. Data and Methodology

The following analyses use both the 2004 and 2008 Chinese Economic Censuses (CEC), as well as the Annual Survey of Industrial firms from 1998-2007 (ASIF). These two data sets, one offering a unit of analysis at the industry and sub-industry level, the other at the firm level, allow for complementary analyses of the hypotheses above. For the industry-level analysis, I rely on the registration category of firms to identify them as state-owned, private, or mixed-ownership. While this

is the most direct way to estimate the impact of the various types of businesses, it is not without its drawbacks. Most notably, as discussed in the prior chapter, registration is not an entirely stable attribute of a business and it is unclear how easy it is to change, or for what reasons it may be changed. Despite this, the breadth of information in the CEC, including all above-scale businesses in any sector of the economy, would put a clear spotlight on any patterns of implementation for SOEs, MOEs, and private businesses.

The firm-level data from the ASIF do not have this same drawback; instead of registration, the source of capital is known for each firm, so the proportion of capital that comes from state, hybrid, and private sources is used. This provides a second insight into the research question, and with better coverage as an annual survey over a ten year period that overlaps with that of the CEC. These data come with the drawback that it only includes SOEs and above-scale firms in the mining, manufacturing, and public utilities industries. Still, these industries capture a wide range of businesses such that state, hybrid, and private interests can be estimated in different sub-industries.

i. Industry-level Analysis

For the first look at the hypotheses, I use the two years of data from the CEC to produce three related OLS regression models. This part of the study will use the 2004 and 2008 Chinese Economic Censuses (CEC) to look at patterns of state investment across the Chinese economy. These data include all legal-person units engaged in the secondary and tertiary sectors of the economy. When looking for the broad strategies that the state might implement, one relevant unit of analysis is the industry or sub-industry. While firm-level data can provide an extremely detailed analysis, the industry level is where state policy often is focused and where both macroeconomic and microeconomic factors intersect. The CEC organizes its data according to international industrial standards and is available in 18 main

industries and 375 sub-sectors. The panels created for this used these sub-sectors over the two years of data to create a total of 750 observations. The detail provided by using sub-sectors allows me to see the role of MOEs *within* individual industries. Within the economy, certain industries are prioritized and treated differently than are others and Hsueh (2011) provides a convincing description of the central state's strategy in managing this. Though MOEs are not explicitly discussed in Hsueh's work, this analysis can serve to complement existing typologies using the same logic of strategic orientation, for both central and local governments.

The analyses are split between three dependent variables: the proportion of firms registered as socialist, private, or mixed-ownership out of all firms. Proportions were chosen in place of firm counts to equalize the range of numbers in the dependent variable, rather than comparing the effects on very large industries (especially manufacturing) with those for the smaller industries. These variables were constructed from the data, recoded from raw counts of the number of firms in each industry into the three aggregated categories according to the typology laid out in chapter 3 (see Figure 3.1). Thus, the socialist category combined all SOEs, collectives, and cooperatives; MOEs combine limited liability and limited share corporations; and the private sector is restricted to all domestic private firms, to exclude foreign investment and investment from Hong Kong, Macau, and Taiwan. Admittedly, firm registration can present a misleading portrayal of the Chinese economy because of "red hat" firms, "red capitalists," and murky capital investment arrangements (see previous chapter), but it can also be an important indicator when used along with other analyses. The three models were generated to be able to appropriately compare the deployment of MOEs against the presence of socialist firms and private firms. Each of the three dependent variables are analyzed using a fixed-effects linear regression with robust standard errors to adjust for heterogeneity in the data. Unfortunately, this means that the categorical variables included in the model, each of which are time-invariant, are collinear with the

fixed-effects model and must be dropped. In order to address this, I will also use two separate linear regressions for each of the 2004 and 2008 data and will compare the results to the model using the pooled 2004 and 2008 data.

In all models, the independent variables are split into two categories: industry characteristics and strategic sectors. The variables focused on industry characteristics are intended to assess the possibility that some types of ownership are used for larger, more successful firms, while others focus on smaller, riskier industries. In order to control for variation in number and size of firms across industrial sectors, employment, revenue, and assets variables were selected that grouped the number of firms in the industry at certain thresholds, and these were then turned into proportions of all firms in the industry. Employment was coded to see what proportion of firms were large employers, having at least 20 employees. Revenue was coded to see what proportion of firms were above-scale, having annual revenue over five million RMB. Finally, total assets were used to represent “high risk” firms that required a large start-up cost, or which have large amounts of capital tied up on fixed assets that may limit profit margins or a firm's capacity for financial flexibility. This was coded as the proportion of firms with total assets over five million RMB, because data for fixed assets alone was not uniformly available in the two years of the CEC. Age of firms was used to estimate the advantages held by older, established firms, compared to the dynamism of newly created firms during the reform era. Since the reform era has seen changing emphases on firms, age was aggregated into four categories and again converted into a proportion of all firms in the industry. The four categories, along with their assumed dominant firm type, include the venerable SOEs of the pre-reform era, the collective and local joint ventures of the first reform era, the explosion of private firms of the second wave, and then the hypothesized rise of MOEs during the modern reform era. These categories compare to firms

predating the beginning of the Communist era in 1949, and correlate to the years 1950-1977, 1978-1995, 1996-2003, and 2004-2008, respectively.

In contrast, the various strategic sector variables represent the possibility that registration type is decided irrespective of internal attributes of firms in a given industry, but instead based upon the industry's own function or characteristics. Each of these variables were created as categorical variables coded according to the industry code at the four-digit level. In order to assess the impact of policy on investment of government funds according to the 1999 resolution (RIETI 2006), categorical variables were constructed to flag industries that have strategic value to the state. Of the four specific policy targets, I coded industrial sectors as those having national security interest; those representing a “natural monopoly”; those fulfilling a public good or service; or a sector critical to the health and growth of the economy. Each category is mutually exclusive of the other three and is coded according to the following scheme:

- “1. sectors related to national security, which include defense industries such as arms manufacturing, the minting of money, and industries crucial to the nation's strategic stockpiling system (including food and energy).
2. sectors subject to natural monopoly and oligopoly, which include postal, telecommunication, electricity, railway, and airline industries;
3. sectors that provide important public goods and services, which include public utilities - such as water, gas, and public transportation services - in urban areas, the management of infrastructure such as ports, airports, irrigation, and other water-related facilities, and the development of crucial protection forests; and

4. core enterprises in sectors that constitute the backbone of the economy including oil mining, steel, automobile, and part of the electronics industry that uses the latest technology.” (RIETI 2006).

Further categories of industries were defined to signify other properties related to development strategies and the role of the state; these categories were also kept mutually exclusive. All industries involving agricultural and forestry production, or natural resource mining were designation as extractive. Manufacturing was split into either heavy or light: heavy industries included products that involved large-scale, capital-intensive production, such as steel, automotive, train, and ship building, and chemicals; light industries included small, consumer goods production, typically much more labor-intensive, such as clothing, household electronics, and food. The “upstream” variable would normally include too varied a set of industries, so it has been broken up to exclude manufacturing (see below), as well as extraction. Although this means that it does not directly pertain to specific production chains, “upstream” does refer how certain sub-industries support or enable other, more valuable industries. This includes any sub-industries that can be labeled as “other” within a given industry (with a four-digit code ending in 90), as well as transportation, and certain business services. A second version of this variable, Upstream+, was created to include extraction, energy production, and a variety of heavy and light manufacturing sectors that do not turn out consumer products, but this version was discarded due to significant overlap with existing categories. I reasoned that greater explanatory value would come from keeping large categories separate.

One final variable was included to estimate neither firm nor industry characteristics, but rather regional effects. Using the Chinese National Bureau of Statistics (2014) classification of regions, the coastal region includes Beijing, Tianjin, Hebei, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong,

Guangzhou and Hainan. These relatively developed and wealthy coastal provinces were aggregated together and an industry was categorized as being predominantly “coastal” if 50% or more of its firms were located in any of these regions.

ii. *Firm-level Analysis*

In order to see if the results of the industry-level analysis hold up to a finer level of scrutiny, I repeat the analysis with the ten years, and the much larger sample size, of the ASIF data. Furthermore, the firm-level data offered an opportunity to use proportional capital allocation, instead of firm registration, as the dependent variable. This is a direct response to the results of the previous chapter that made the use of registration a questionable, if necessary choice given the data available. If the patterns from capital-source do match the patterns from registration, that will make the results that much more robust. If the results do not match, it may be possible to see if MOEs more closely resemble SOEs or private firms in the patterns found in the magnitude and direction of significant variable coefficients. This may hint at the corporate governance of MOEs.

Once again, I constructed three comparison time-series regression analyses, one each for mixed-ownership firms, socialist-type firms, and private firms, respectively. This allows me to isolate patterns of deployment of MOEs from general patterns in the economy, and patterns specific to either socialist or private firms that have dominated the discourse on Chinese development. The unit of analysis is the individual firm, by identification number, and the panel is identified by the year, from 1998 to 2007. Firms missing years from their panel were excluded, leaving 36,145 firms, with 361,450 firm years in total. The dependent variable in each model was the proportion of capital from a particular source, whether directly from the state, state-banks, or SOEs; from private investment; or from corporate, mixed-ownership sources.

As with the prior analyses, the dependent variables were created as a proportion of total capital coming from state, private, or corporate sources, instead of the raw RMB value of capital. This allows me to account for the huge variation in investment between large and small firms by standardizing the values across larger and smaller firms. Following similar work, firms are assumed to have the characteristics of whichever source dominates the total of paid-in capital (Fuest and Liu 2015). That is, mixed-ownership firms with a majority of capital from state sources should operate similarly to state-owned firms, while those with a majority of capital from private sources should operate similarly to privately-owned firms. As this variable is expressed as a proportion, the time-series analysis uses linear regressions; because the sub-industries are closely related by being nested within only a few industrial categories, a Hausman test showed that fixed and random effects estimators were not equal. Consequently, random effects were rejected in favor of fixed effects with robust standard errors in each of the models to address possible heteroskedasticity and autocorrelation.

Independent variables were chosen to align with the prior research at the industry level, and were constructed from the available data by being scaled down from very large raw numbers for firm attributes (e.g. profit in RMB), or were created as categorical variables to represent industry characteristics. The former include employment (in thousands of employees) and total assets, total revenue, and total profit (in one million RMB). These variables correlate with the industry-level analyses: employment with high employment; total revenue with above-scale; total assets with high stakes; and firm age with the four proportion variables for the origin of firms. Total profit is unique to this analysis, since such data was not uniformly present in the available CEC data set. Ultimately, revenue was dropped from the analysis because data on this are only available for the first half of the time period, and the resulting models never showed revenue to be significant.

The latter, categorical variables were assigned to firms according to their industry (using the four-digit code) to match the possible developmental strategies that the government might pursue. As with the prior analysis, discussed above, these variables include the four critical types of industries that both have direct relevance to the state: core industries, state security (broadly defined), natural oligopolies, and public goods and services. Since the ASIF data set is limited to extraction, manufacturing, and energy production and transmission, some of these categories are limited in scope compared to their analogues in the industry-level analysis.

For instance, core industries are limited to energy production (including coal, oil, and natural gas extraction and refining) and certain key manufacturing sub-industries, such as steel and automotive, which often serve as commanding heights and national avatars for the economy, and are also high revenue, high risk, and high entry barrier industries. Core industries do not, in the ASIF data set, contain obvious inclusions such as finance that are present in the prior analyses. Natural oligopolies, public goods and services, and state security industries likewise match the coding applied to them in the industry-level analysis, when firms are listed with the relevant industries. Additionally, a variable to designate firms in extractive industries and firms in heavy manufacturing were included, along with variables for industries that have downstream effects, such as transportation, and that provide ancillary forms of support within an industry (see part B above for detailed descriptions of the coding scheme for these types of industries).

Additional models with variations on the dependent variables were used to verify the accuracy of the above models. First, the three proportion of capital variables were recoded with a lead of one year in order to see if the effects of the independent variables were delayed. This would likely be relevant for the firm attributes, where performance from year to year can differ and investors respond to such changes. The analyses for these new dependent variables exactly match those from the first set

of analyses described above, including the same independent variables and they are modeled in the same way.

Second, following up on the discussion at the end of the previous chapter regarding the nature of mixed ownership, it became apparent that using the “corporate” capital source in the ASIF data as the sole representative of mixed ownership may be insufficient. Instead, a new variable, “Mixed,” was constructed as a categorical variable to include not only firms with any capital from corporate sources, but also firms that had a combination of state and private capital in any proportion. Thus, the “mixed” variable included all firm years other than when a firm was either entirely state owned or entirely privately owned. The new analysis using “mixed” as the dependent variable followed the same models as in the prior analyses, but used a logistic regression with clustering around the firm-specific identification code to account for categorical dependent variables and the panel effects, while maintaining robust standard errors. Not only does this utilize a more encompassing definition of mixed ownership, these models also use a more forgiving threshold for measuring change, because the required effect to produce change between either a “one” or a “zero” is much easier to see than the required effect to make even just a one-percent change in the amount of capital invested in a firm, which may be billions of RMB.

C. Findings

To begin estimating developmental strategies, three graphs display the number of firms registered as either socialist, private, or mixed ownership across all top industrial categories. This provides a general view of the deployment of ownership types. First, I aim to show that socialist and private firms conform to expectations about where they are concentrated. Next, the goal is to see if MOEs have a noticeable pattern in the relationships with the independent variables, including

significance, direction, and magnitude, and if these patterns are similar those displayed by either of the two established categories, state and private. Figures 4.2 and 4.3 show the inverse presence of socialist and private firms across industries; some industries do remain dominated by the state, while many others have been left mostly to private firms. The industrial codes begin on the left of the graph with extractive industries, and progress downstream, through heavy and light manufacturing, construction and transportation, to sales and a variety of services, both consumer and business. Socialist-type firms are most heavily at the service-end of the distribution, led in particular by education, healthcare, public utilities, and the FIRE sectors (finance, insurance, and real estate). Additionally, socialist-type firms are heavily represented in the extraction industries, and, interestingly, are more prevalent in certain types of agriculture than in mineral extraction. Agriculture is limited to grains and cereal production, as well as forestry products, as opposed to horticultural crops and produce. This socialist firm type is least represented in manufacturing, excepting, notably, in tobacco and cigarette production.

<Insert Figure 4.2 here.>

Conversely, private firms dominate manufacturing and consumer services with few exceptions. Even in extraction, including all sorts of animal production and mining, at least 50% of firms are registered as private. On the services-end of the industry code, there seems to be a predictable distinction between the sub-industries, the variety of businesses within a single industrial category, that are more likely to be private than socialist. In construction, the private sector dominates smaller-scale projects, including decoration, site preparation, equipment services, and housing. Within the transportation industry, the private sector dominates road freight, taxi, and handling/forwarding services. Similarly, firms in consumer services, such as hotels, internet and computer servicing, beauty, and marriage, as well as sales, both retail and wholesale, are mostly registered as private. Within

business services, the same pattern is present, with private firms concentrated in “other” or “support” sectors of finance, insurance, and consulting.

<Insert Figure 4.3 here.>

Mixed-ownership firms rarely dominate sub-industries in the way that socialist or private firms do. Figure 4.4 shows their distribution across industries, which more closely resembles the distribution for socialist firms: a relatively low proportion overall, with a slightly greater presence in the service sector, rather than in extraction or manufacturing. The most notable spike in MOE registration comes in the FIRE industries, where these firms dominate stock market management, investment securities and related services or consulting, life and non-life insurance, other financial services, and some parts of real estate development and management. Interestingly, in these industries, the proportion of MOEs increased significantly from 2004 to 2008; this may indicate either some sort of a push toward mixed-ownership in these sub-industries, or some specific benefit, real or perceived, for firms to change to become MOEs. The other two spikes show MOEs playing an important role in some parts of transportation, including some passenger and cargo, and pipelines, as well as in some heavy manufacturing, especially chemical and aerospace manufacturing.

<Insert Figure 4.4 here.>

Overall, MOEs represent a small but stable 10-40% of firms in most industries, with perhaps enough variation to discern specific strategic motives. Few industries entirely excluded MOEs, and none at all were 100% MOEs; a linear regression can show in which industries socialist, private, and mixed ownership firms are more likely to be present between 1998 and 2007. In order to compare the ownership strategies that I am inferring from this data, I present not only the regression for MOEs, but also for both socialist and private firms, with the expectation that MOEs vary from both but more closely resemble the deployment of socialist firms, based upon the above results.

i. Industry-level Analyses

Table 4.1 shows the regression results for socialist-type firms, both as a time-series combined data set with panels for 2004 and 2008, and then as two typical OLS regressions with the data separated by year. This was done to address the categorical variables being dropped from the time-series regression because they are time invariant; additionally, I can see if the results for industry are significant in the individual models in either year, while the other two variables are both significant in the individual years (Models B1 and C1). The time-series model shows that, over both years, state registration was negatively associated with the number of large-revenue firms in an industry, possibly indicating that these industries have been left to private or mixed-ownership firms. However, this relationship is not significant in the 2004 and 2008 individual-year data. The 2004 and 2008 data show instead that a higher proportion of firms with large assets is positively correlated with state registration, suggesting that state firms are more concentrated in industries where the cost of doing business is high, though the impact of this factor lessens slightly over the time period. The cause of the opposite results for firms with high revenue and high total assets is unclear, since these types of firms would seem to be related to one another. In 2008, the proportion of firms with high employment is negatively associated with state registration, the only industrial attribute which remains significant when other factors are considered. This seems to make sense in a time when many SOEs saw massive downsizing in order to gain competitive efficiency, and the states' share of employment declined.

<Insert Table 4.1 here.>

Assuming that private firms remain dominated by small employers, it is likely that we will see that MOEs are the firms more likely to be present in industries with high employment. The significance of the industry attribute variables lessens when the age of the firms is considered (Models B2 and C2), and nearly disappears entirely when the strategic variables are added (Models B3 and C3).

This indicates that the industry attribute variables, comprised of the type of firms within individual industries, are likely incidental to any potential development strategies.

The second set of models introduced the age of firms as measured by the proportion of firms within an industry that were established in four time periods: the communist era, first-wave reform, second-wave reform, and modern reform era (1950-1977, 1978-1995, 1996-2003, and 2004-2008, respectively). Because the institutional environment has changed so much over the entire reform era, certain types of firms have been more or less numerous (or possible) at various points. Especially for SOEs and MOEs, which became more common (again) during the modern reform era, it may matter when a firm was established, as public policy may have made it difficult to register as private or mixed-ownership in favor of other, more traditional types. Industries with a high proportion of firms established in the second wave (1996-2003) were less likely to register as a socialist-type. In 2008, after there was sufficient data to establish a meaningful modern reform era category, this was again true.

The third set of models included the strategic sectors as categorical variables. In both 2004 and 2008, heavy manufacturing betrayed the common assumption that SOEs continue to dominate these sub-industries. Of course, that is not to say that heavy manufacturing sub-industries do not contain or are not dominated by one or a few major SOEs, but that even these sub-industries have been opened to competition and that new entrants are either private firms or MOEs. In 2008 alone, the data show a small shift for the state toward emphasizing both natural oligopolies and supporting industries that downstream goods and services to other productive parts of the economy. This could represent a move by the state to have SOEs reenter industries that had previously been abandoned during the 1990s and early 2000s, but in a way that is more supportive of private and mixed-ownership firms, than directly competitive with them. None of the other strategic variables were significant for the socialist-type

firms, which may indicate that there is little top-down strategy coming from the CPC for the continuation of SOEs, or that MOEs or private firms are specifically being allowed to take the lead in these portions of the economy. It is surprising, however, that neither state security nor core business industries were positively correlated with socialist-type firm registrations. Ultimately, there is little evidence of any dominant economic strategy to keep industries under direct state control, but the changes seen between 2004 and 2008 in natural oligopolies and downstreaming may indicate movement in that direction.

Private registration, on the other hand, is much more obviously tied to strategic goals. Table 4.2 provides the regression results for private firms and the contrast with socialist-type firms in the prior table is stark. The industry attribute variables are strongly significant in the panel data model (D1), while both high employment and high stakes (total assets) maintain this significance in the individual year models (E1-3 and F1-3). In the panel data model, two of the three industry attributes are negatively associated with private registration of firms; high employment and high stakes are both factors which are unsurprisingly counter to private enterprise in China, where these firms are likely to be small in size and often concentrated in parts of the economy in which it is less expensive to operate. Running counter to this is above scale which is strongly and significantly positively associated with private registration. This finding suggests that, whatever private firms do, they are often quite large, as opposed to merely being a host of small businesses.

<Insert Table 4.2 here.>

This is admittedly confusing, as this effects of the industry attribute variables are not significantly present in either of the single-year models except for model E1, which excludes any factors other than the industry attributes. While above-scale disappears, high stakes persists, maintaining its direction, magnitude, and its significance across the 2004 and 2008 data. High

employment, in contrast, flips direction and becomes a stronger effect, even when the remaining variables are added to the subsequent models. This is another surprising result, indicating a distinct relationship between private firms and industries with many high-employment firms, though the nature of this relationship is unclear.

The firm age variables conform nicely to the time line of the reform era. Firms in industries with many first-wave firms, created between 1978 and 1995, are less likely to be private in 2004, but the relationship disappears in 2008. This could be due to rapid decline of domestic joint ventures, the exemplars of first-wave reform, since the mid-1990s and perhaps mostly completed by 2008, as seen in the data in tables 3.1 and 3.2. Instead, industries which became dominant during the second wave of reform are much *more* likely to be dominated by private firms in both 2004 and 2008 data. This correlates with the period in which private ownership made the largest overt gains in the economy, replacing both TVEs and SOEs, and before the rise of MOEs and the resurgence of SOEs in the modern era.

Several of the developmental strategy variables are significant, each in both 2004 and 2008, and each increasing over time. This stability over the two time periods may indicate that the role of the private sector in the economy has been guided, or at least channeled, into specific industries or economic roles at least since 1998. Each of natural oligopolies, public goods and services, and downstreaming were strongly negatively associated with private registrations, suggesting more a top-down than a bottom-up control over these industries, despite the weak or non-existent relationship between these same factors and socialist-type registration. Heavy manufacturing and extraction are both moderately positively associated with private registrations, which, when combined with the existing acceptance that light manufacturing has long been one of the main incubators for Chinese private firms, indicates that nearly all of the former state monopolies in the production process have

opened up to competition with private firms, and that private firms may be winning over SOEs. In line with this understanding, industries that are located mostly in coastal provinces, which are also the most industrialized, continue to be the most likely to have a high concentration of private registrations.

Finally, we come to the regression results for MOEs in Table 4.3, where two facts are immediately obvious. First, the industrial attributes variables are opposite from the results for the private sector in Table 4.2, and, second, the developmental strategies section is mostly empty. For the industrial attributes, the results from the panel data model (G1) match those from the 2004 and 2008 models (H1 and I1, respectively). In each case, high employment industries are moderately negatively associated with mixed-ownership registrations, and high-stakes industries are strongly positively associated with MOEs. Even in the more well-articulated models, these results remain stable and significant. Regarding the debate about whether MOEs more closely resemble the state or private sector, this particular result puts MOEs on the side of socialist-type firms.

<Insert Table 4.3 here.>

The age variables in models H2 and I2 show one reason why MOEs are, or perhaps were, special: by 2004, they saw widespread implementation across industries throughout the entire reform era. While other registration types may have fluctuated, MOEs were strongly positively associated with industries that were mostly founded in the first wave, second wave, or modern era. The effect is strongest for industries with many new firms, reflecting a push by the state to explore this ownership type. By 2008, the magnitude of this relationship is even larger, even if the significance of the effects is somewhat less certain, and disappears in the full model (I3).

The lack of significance for the developmental strategies variables, complete in 2004 and nearly so in 2008, would be worrying, except that the change comes in the most recent time period. While there is no discernible strategy to be inferred about MOE implementation in 2004, only shortly after

when they became common, it seems that a coherent strategy may be beginning to form. Unfortunately, for now, any such strategy seems to be defined more by what it is *not*, than by what it *is*. Specifically, MOE registrations are negatively associated with heavy manufacturing, extraction, and location in coastal provinces. All of these are areas that were shown to be dominated by private firms in Table 4.2. The one strategy that was positively correlated with MOE registrations was for down streaming industries, which follows the pattern of results for the socialist-type firms in Table 4.1, reinforcing the connection between MOEs and SOEs.

The results from tables 4.1, 4.2, and 4.3 emphasize which variables are relevant in the spread of ownership categories across the economy. Before I transition to that next analysis, I also must discuss the several variables that were *never*, or rarely, significant in the above models. These variables are above scale, communist era, core businesses, and state security. In all but the most optimistic neo-liberal privatization hypotheses, industries dominated by any of these four factors would be expected to have high concentrations of SOEs. Instead, these types of industries do not seem to appear at all, and the reasons may vary. For industries with a high proportion of firms originating during the pre-reform, communist era, when all firms were socialist-types, it is likely that the firms that have survived for so long have simply had sufficient opportunity to change registration, perhaps many times, so that there is no pattern to how they were registered during the time of the two economic censuses. This may be true for industries designated as “core businesses,” many of which are likely to have changed little since the communist era (i.e. steel and energy). For industries labeled as state security, it may be a combination of the broadness of that designation (e.g. food security and energy security), combined with the lack of information about the more obvious part: military security. Were data on military security available, it is likely that that direct state control would be observed. Above-scale industries did show occasional significance in the regressions (positive with private in models D1 and E1; negative with socialist in

A1), which indicates that private firms, and not SOEs, are more likely to be found in high-revenue industries. This supports a general trend toward corporatizing large, relatively successful firms to encourage greater competitiveness in the market, especially globally. These results are held to a second test in the next part of this dissertation, where the significant factors can be assessed through the experiences of individual firms, and with some slight variations on data availability.

ii. *Firm-level Analyses*

The firm-level data from the 1998-2007 ASIF allow for a different perspective on the same hypotheses; rather than looking at what types of registrations are prevalent, I can see from what sources firms receive capital. This allows for an analysis of how mixed ownership is deployed while allowing for a finer understanding of what mixed ownership may mean as the proportion of capital from state, private, and corporate sources varies between and within firms over the time period. The analysis is done in three parts, following the format of the industry-level analysis in the prior section. First, I will look at how firm attributes (i.e. employment, assets, revenue, age and profits) and developmental strategies (e.g. core businesses, natural oligopolies, downstreaming, etc.) impact the proportion of capital a firm receives directly from state sources. This is then repeated for the proportion of capital from private sources, and then a third time for mixed ownership, defined in this case as capital from corporate sources.

To start, Tables 4.4 and 4.5 describe the three dependent and independent variables, respectively. Overall, state capital is the most prevalent type across all firms, accounting for 36.5% of total capital for any given firm in any given year, compared to only 24.6% private or 17.9% corporate capital. In each case, the mean is not a particularly credible measurement, as the variance is enormous, with standard deviations larger than the mean. Additionally, the variance is similar across all three

capital sources, both between firms over the entire time period, and within firms from year to year. If capital within firms fluctuated so significantly, this could make patterns difficult to identify.

<Insert Table 4.4 here.>

Limitations on the utility of the mean carry over to the dependent variables. Looking at the standard deviations in Table 4.5, both between the different firms, and within firms over the ten-year period, certain assumptions are confirmed. First, the strategic variables, which still depend solely upon the industry code the firm is registered as, have relatively low variation within panels when compared to between panels. This is likely a result of a firm's industry being mostly stable over time, while there will obviously be differences across firms. Firm attributes are naturally much less stable within panels, particularly in annual revenue and profit, both of which can be volatile from year to year. The two factors that seem likely to be more resistant to rapid change, employment and assets, do show relatively less variance within panels than between. Age has no within-firm variation, since each firm gained the same one year of age in each year of the data set.

<Insert Table 4.5 here.>

Table 4.6 shows the time-series regression models for each of the three dependent variables: proportion of capital from state, private, and corporate sources. Overall, the results show few effects for firm attribute variables, and mostly no effects for developmental strategies. Within each dependent variable set, each model shows the effects of firm attributes holding stable in magnitude, direction, and significance or lack thereof; only one variable in models J1 and L1 gained or lost significance in the fully articulated model (J3, K3, & L3, respectively). Although it is of questionable value to time-series regressions, it may be relevant to point out the essentially non-existent r-squared values, even with a fairly large number of independent variables in the full models.

Several firm attributes were significantly related to capital from state sources. Age and employment were both weakly positively associated with state capital in models J2 and J3, while assets and profit were strongly negatively associated. The result for age shows the entrenchment of older firms relying on state resources, while newer firms have more varied sources of investment. Beyond age, these results generally place state investment in a supportive developmental role; rather than the state directly investing in profitable firms, its emphasis is on firms with high employment. The negative relationship with total assets is unexpected and does not characterize the typical developmental state strategies where firms with large assets often lead critical industries with state support. The assets relationship instead fits into a strategy deemphasizing state investment in such critical firms in favor of downstreaming of necessary inputs and services, and reflects a decline in the state's willingness to shoulder the burden of supporting industries that are costly to operate.

<Insert Table 4.6 here.>

Unfortunately, the two industrial strategy variables that were significantly related to state investment only partially support this conclusion. Firms registered in the extractive industries, which represent an important part of a broad downstreaming strategy, were slightly positively related to state investment. The downstreaming variable, however, which includes supportive functions other than extraction, is actually strongly *negatively* associated with state capital as a proportion. This either indicates a very narrow definition of downstreaming, limited to supporting extractive industries, or suggests little strategic deployment of state capital within firms.

Private capital as a proportion of total capital is similarly weakly linked to a particular developmental strategy, but aligns well with prior results. There is a strong negative association between age and private capital, agreeing with the state-capital results that suggest that newer firms are less likely to attract state investment. Assets is strongly positively associated with private capital,

which, when combined with the negative relationship between state capital and assets, further supports a push by the government to have private investors share the burden of costly industries. This does seem to help the state acquire resources without burdening state banks with more debt. But it seems to be of dubious benefit to private investors in the absence of any indication that profit is also an option for private capital.

Where state capital was likely to increase in extractive industries and decrease in other downstreaming industries, private capital was exactly the opposite. The proportion of private-sector capital was strongly positively associated with downstreaming and strongly negatively associated with extraction. This matches a bottom-up strategy for privatization of non-critical, supporting firms, and also limits the private sector's control over potentially valuable natural resources. If nothing else, these data reflect a complementary implementation of state and private capital. Additionally, there is a weak negative association with heavy manufacturing, which again agrees with a bottom-up strategy, and which could be a legacy of the earlier reform eras where private capital was often limited to light manufacturing instead of heavy.

Finally, corporate capital as a proportion of all capital in a firm shows an even less strategic deployment. As with private capital, newer firms are more likely to have higher proportions of corporate capital (strongly negatively associated), indicating that MOEs are receiving the same boost that private firms have received since 1998. There is also a strong negative association between the concentration of corporate capital and employment, which suggests the state's push away from large-scale firms. In the absence of other indicators it is difficult to explain this relationship; it could suggest either the state's withdrawal from firms with bloated payrolls that prioritize stability over profit, or it could be that large-scale, industry-leading firms are less available to corporate capital. The industrial strategy variables offer no resolution to this question; only downstreaming was significant, showing a

weak positive relationship with the proportion of corporate capital. These results overall indicate that there is little strategic deployment of corporate capital.

Due to the limited results of the first regression, several other attempts were made to verify them. First, the regression was repeated with the dependent variable modified to control for differences in firm size, recoded as capital per employee. This produced very little change in significance or coefficients. Next, the regressions were again repeated but with a lead of one year added to the dependent variable (see Table 4.7). This was done to see if investment patterns followed a delayed response, with one year's performance or state strategy determining the following year's investment. Overall, the results were similarly weak, with firm attribute variables mostly disappearing in the fully articulated models, and the developmental strategies variables not being relevant at all. For the former, the age of the firm remained unchanged as expected, and profit saw a marked increase in significance for all three capital sources.

Interestingly, only state capital proportion was strongly predicted by an increase in profit; the association was negative for both private and corporate capital. This suggests a top-down transformation, where profitable firms are kept under state control, but this is the only instance in the analysis that predicts this. As in Table 4.6, the only developmental strategy that was statistically significant was downstreaming, which followed the same pattern as negatively associated with state capital, and positively associated with private capital, though the effect was weaker than in the time-matched models. The downstreaming variable was not significantly related to the concentration of corporate capital, which left exactly none of the developmental strategies variables as important -or even relevant- indicators for the deployment this type of capital.

<Insert Table 4.7 here.>

The final check involved broadening the category of mixed-ownership firms to include not only corporate capital, but also firms which combine state and private capital; essentially, any firm for which the total capital is *not entirely* either state or private. Instead of relating to the proportion of capital, these models use a categorical dependent variable which simply restates the question as: which factors are associated with a firm having capital from state and private sources in any combination. The broadening of the definition of mixed ownership, in Table 4.8, showed much more interesting results, especially for developmental strategies.

Of the five firm attribute variables, three are significant in the fully articulated model (M3). Employment and assets are both strongly positively associated with a firm having some combination of mixed capital, while profit is weakly negatively associated. This provides some support for a hybrid development strategy, where MOEs take on the responsibility for maintaining high employment and for supporting industries that have high barriers to entry, while leaving the most profitable firms to be either state or privately owned. However, profit loses significance in model M4 where revenue has been removed; this is likely due to its being a weak effect that simply disappears when the latter years of data are included. Notably, age is not significant in the full models, unlike almost all of the prior models. This is useful, especially in this model, to show that mixed ownership is not merely an effect of time, but that certain strategies, such as those discussed above, may be relevant.

<Insert Table 4.8 here.>

These strategies, represented by the set of categorical variables, are much more visible in this model (M3 and M4) than in the proportional capital models. The two models are essentially similar, in magnitude and direction of association, except that the model without revenue (M4) trades a strong negative association between mixed ownership and downstreaming for one between mixed ownership and extraction. Regarding developmental strategies, these two variables are related parts of a hybrid,

support-oriented strategy, so either one being significant, in this case negatively, can diminish the likelihood of that strategy being relevant. Firms within the areas of state security, natural oligopolies, and public goods and services, that are strongly negatively associated in both models, are not within the scope of MOEs. This fits with expectations that these areas are kept under more direct state control. The one strategy that was positively associated was heavy manufacturing, which aligns nicely with the positive relationship with assets.

Although the results for mixed-ownership firms are the focus of this dissertation, it is still necessary to compare them to the results for socialist-type and private firms. The logistic regression was redone twice, in Table 4.9, replacing the mixed dependent variable in each with one identifying firms that receive 100% of their capital from either state or private sources. After seeing that the revenue variable was similarly meaningless as in the hybrid models in Table 4.8, I dropped them from this analysis to align with model M4 in that same table. Also matching the results from the hybrid models, the developmental strategies variables were again very well represented for both the state and the private models.

<Insert Table 4.9 here.>

In the models for the entirely state-funded firms, each independent variable except one, profit, was significant in the full model (N3), and even that variable fell out after the first model. Employment and assets were both negatively associated with state ownership, indicating a withdrawal of SOEs from the types of firms that might have been their specialization earlier in the economic reform. The developmental strategies variables, on the other hand, showed a distinct legacy of state control, being strongly positively related with each strategic variable. Even core businesses and state security, which have failed to be relevant in any prior model, were significant in this model. Natural oligopolies and public goods and services were even more strongly related, as well as was extraction, while heavy

manufacturing was less strongly related, which contradicted the previous result from the industry level model (Table 4.1) showing that manufacturing was negatively associated. Only downstreaming was negatively associated, indicating that this type of industry have been were left the private sector to fill.

The final model in this analysis is for firms that received all of their capital from private sources. These models (O1-O3) show a mostly inverted relationship with those from the state only models; where state is negatively associated with employment and downstreaming, the private sector is positive; where the state is positively associated with natural oligopolies, provision of public goods and services, and extraction, the private sector is negative. There was some overlap as well, with completely state- and completely privately funded firms being positively associated with heavy manufacturing, though more strongly for the state firms, as well as being negatively associated with total assets.

Unlike the result for the industry-level data earlier in this chapter, the firm level data showed that MOEs were more closely aligned with private firms rather than with state firms, at least in the logistic regression models. The OLS time-series models were overall so sparse that there was little meaningful overlap between corporate-capital firms and either private- or state-capital firms. The comparison between the hybrid and private models (M4 and O3, respectively) is quite clear: The two ownership types share direction and significance, if not magnitude, of association on employment and heavy manufacturing (positive), and state security, natural oligopolies, public goods and services, and extraction (negative). The only variable for which the two models outright disagreed was total assets, where hybrid firms were positive in contrast to *both* state and private firms, which were negative. This may represent the best evidence of a strategic function for mixed capital: sharing the expense of high cost industries, which can be a barrier to entry for private firms and a burden for state firms.

D. Conclusion: Mixed Results

Ideally, the two sets of analyses in this chapter would have provided a complementary picture that supports inferences about how mixed ownership might be deployed by the CPC. These factors might have made for a coherent strategy designed by the Chinese government, perhaps aligning with the developmental categories that formed the hypotheses of this project. In reality, the results were mixed at best, with the industry-level data not matching the firm-level data, and many of the variables having no relevance at all. Nevertheless, several interesting results were uncovered in individual models, and the three groups of hypotheses, based around liberal market (LME), coordinated market (CME), and hybrid economic models, received conflicting support, which is summarized as follows and in Figures 4.5 and 4.6.

The regression models using the CEC data were the first attempt to discover patterns of registration concentration across industries. Sub-industries did indeed vary in their concentrations of socialist-type, private, and mixed-ownership firms, but the patterns did not conform well to any of the theory-driven predictions, though at least the coordinated market/top-down transition hypotheses that denied any significant role to the private sector was never likely. The CME hypotheses expect the economic transformation to be controlled by, or even captive to, the agents of the state. This leads to expectations that SOEs and, to a lesser extent, MOEs would be the highest concentration of firms in the most important and most valuable industries, while private firms would be concentrated in opposite industries, those that are less profitable, with no strategic value. The only variable where this proved to be the case was for industries that are natural oligopolies, where socialist-type firms dominate and private firms are less prevalent. Beyond this, only a few other results were significant in the proper direction for this hypothesis, but never in an organized manner between the three ownership categories.

<Insert Figure 4.4 here.>

The same generally weak significance for the predictors was also evident in the time-series models using the ASIF data. In both cases, it is likely that the standardization of the dependent variable as a proportion may have washed out the findings by making change much harder to see. Alternate dependent variables that can control the huge variation in either number of firms per industry or the total capital per firm may yield better results in the same models.

In contrast with the CEC models and the ASIF time-series analysis models, the logistic regression models using the ASIF data and the expanded definition of mixed ownership have a strong affinity with the CME hypotheses. State-funded firms were positively associated with most of the factors, especially the developmental strategies factors, including core businesses, state security, natural oligopolies, public services, extraction, and heavy manufacturing. Private firms were negatively associated with each of these factors, while hybrid firms had no statistically significant relationship at all. Firms fulfilling a downstreaming function were negatively associated with state ownership and positively associated with private ownership. This favors explanation that the state controls the strategically useful industries, while allowing private firms to support the economy where opportunities present themselves, similar to the case made by Hsueh (2011).

Both the LME and Hybrid sets of hypotheses are somewhat better supported by each of the CEC and ASIF models, though not conclusively so. The LME hypotheses, also reflecting transformation, or privatization, from below, would obviously expect that nearly every facet of the economy is dominated by private firms, from small-scale activities like retailing, to the commanding heights of the economy, allowing little place for MOEs nor the aging hulks of SOEs. Of course, it is no surprise that this outcome was not supported in industries where the state is widely believed to maintain a significant presence (Deng et al. 2011; Naughton 2006); private firm registration was not positively

associated with any of these variables, including core businesses, state security, natural oligopolies, or public services.

<Insert Figure 4.5 here.>

The LME hypothesis is supported by results for employment, extraction, and heavy manufacturing. Each of these variables was positively associated with a higher concentration of private firms, as well as correspondingly lower concentrations of socialist and mixed-ownership firms. The firm-level data showed that a positive relationship held for firms with entirely private capital in employment, downstreaming, and heavy manufacturing, supporting the CEC results, though the correlated decrease in firms with entirely state capital was not present for heavy manufacturing. None of these variables are necessarily assumed by scholars to be dominated by privatization, making these particular results somewhat surprising but complementary. For example, the private sector is widely touted for employing a large proportion of Chinese laborers after the share of employment by SOEs fell to 18% in 2012, from 99% in 1978 (Lardy 2014), but it is valuable to show that this occurs not only in small firms, but also in many large firms.

This result begins to make sense when combined with the positive result for heavy manufacturing. Manufacturing has been the key driver of economic growth throughout the reform era, but it stands to reason that there may be a difference in ownership patterns between light and heavy manufacturing. Light manufacturing of small consumer products, which is labor intensive but not necessarily capital intensive, has a low barrier to entry which may have attracted many new private firms beginning early in the reform era. The heavy manufacturing sub-industries, in contrast, must contend with the legacy of the early industrialization efforts that created large, entrenched SOEs with many advantages over any new private-sector competitors, not least of which was the high investment to begin producing things such as steel, cars, or machinery. Because of this, I expected a negative

relationship between private capital and heavy manufacturing, but found instead a positive relationship. In this case where the heavy manufacturing sectors, not to mention light manufacturing, are associated with a higher concentration of private firms, the positive relationship between high employment and private firms also makes sense.

The hybrid developmental state model predicts a continued presence of state-controlled firms in only the most critical industries, and reduced state presence in the economy at large. Instead of private firms making up the difference, as in the LME model, mixed-ownership firms should be expected to serve developmental strategies, in key sectors or for important goals (e.g., employment) in all but the periphery of the economy. The CEC data offer little support for these hypotheses; in the few instances where MOEs were positively associated with the independent variables, only the industries described as downstreaming also saw a negative relationship for firms registered as private. Total assets was also positively associated with MOEs, but was similarly associated with private firms, which presents the two ownership types as competitors within at least this one factor.

The ASIF firm-level data was more supportive of the hybrid developmental model. It shows that SOEs are positively related only to the four critical types of industries (core businesses, security, natural oligopolies, and public services), while mixed and private capital were either negatively or not significantly associated at all. MOEs, represented by firms with mixed capital, are positively associated with employment, firm assets, and heavy manufacturing, taking over from state-funded firms in the former, and from both state- and private-funded firms in the latter. Similar to the results for firm assets in the CEC data, MOEs are joined by private firms in association with high employment, sharing that developmental function. Heavy manufacturing is an interesting case, as it is positively associated with capital from all three types, state, private, and corporate, making this the most heavily stressed -or competitive- developmental industry.

Putting this all together, none of the hypothesis sets were particularly well supported. One conclusion that could be drawn from this might be that there is no meaningful strategic implementation of ownership types across the economy, hybrid or otherwise. Instead, it may be that the economy is managed in a somewhat haphazard manner, in which investment and registration are both captive to the short-term needs of individual owners, local governments, or agents of the central state. This interpretation would explain the rapid changes in firm registration that was shown in the prior chapter.

Another, more generous interpretation is that a more traditional version of a hybrid economy is relevant, with a distinction between state and private firms, but little room for MOEs. The firm-level data show several factors having a clear relationship favoring either state or private firms, but mostly excluding MOEs. An economy that has such a strong presence of state-funded firms in particular industries can hardly match the characteristics of a LME. Similarly, an economy that has such a strong presence of private firms in key sectors does not match the definition, offered earlier in this dissertation, of a CME with top-down, post-socialist characteristics. Instead, it seems as though China might align more closely with a typical European-style CME.

The final take-away from this work is an understanding of the role mixed-ownership firms play in the economy. This is still unclear; neither firm nor industry characteristics in any meaningful combination provided evidence of a strategic deployment of MOEs. Even trying to determine whether MOEs would more closely resemble the patterns of state or private firms, in an effort to determine which side they would be replacing, was difficult. Firms with a registration as one of the mixed-ownership (LLC, SHC) types more closely resembled state firms, indicating a deployment as a replacement for the old-style SOEs. Conversely, firms with a mixed capital source, combining state and private, or with any corporate capital, resembled private firms in terms of significance, magnitude and direction of the independent variables across the regression models in this chapter. It remains to be

seen, then, whether these types of firms conform to corporate governance models that match either state or private firms, or whether MOEs serve interests other than achieving broad economic development goals.

What is clear is that there has been growth in the MOE sector and that some notable portion of that growth is coming from newly established firms and in still-developing parts of the economy, as evidenced by the various age variables across the models, and the negative relationship with the coastal model in the CEC data. Based upon the results of this dissertation and the CPCs proclamation regarding mixed ownership at the 3rd and 5th Plenums of the 18th Central Committee meeting in 2013 and 2015, respectively, I expect that these two patterns will continue, and that MOEs will yet grow into a more defined role over the coming decade. During this time, more and better data becoming available would warrant a return to this topic, and could perhaps better address the hypotheses presented in this work.

Figure 4.1. Summary of Hypotheses by Theory and Independent Variable.

	LME, Transition from Below	CME, Transition from Above	Developmental State, Hybrid Transition
<i>Large Employers</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Barrier to Entry</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Above Scale</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>High Profit</i>	State -, MOE -, Private +	State +, MOE -, Private -	State -, MOE +, Private -
<i>Age</i>	State +, MOE +, Private -	State +, MOE -, Private +	State +, MOE -, Private -
<i>Core Business</i>	State -, MOE -, Private +	State +, MOE -, Private -	State +, MOE +, Private -
<i>State Security</i>	State -, MOE -, Private +	State +, MOE -, Private -	State +, MOE -, Private -
<i>Natural Oligopoly</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Public Services</i>	State -, MOE -, Private +	State +, MOE +, Private -	State +, MOE +, Private -
<i>Extraction</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Down Streaming</i>	State -, MOE -, Private +	State -, MOE +, Private +	State -, MOE +, Private -
<i>Heavy Manufacturing</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Coastal</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -

Figure 4.2. Proportion of Firms Registered as Socialist-type by Industry, CEC 2004-2008.

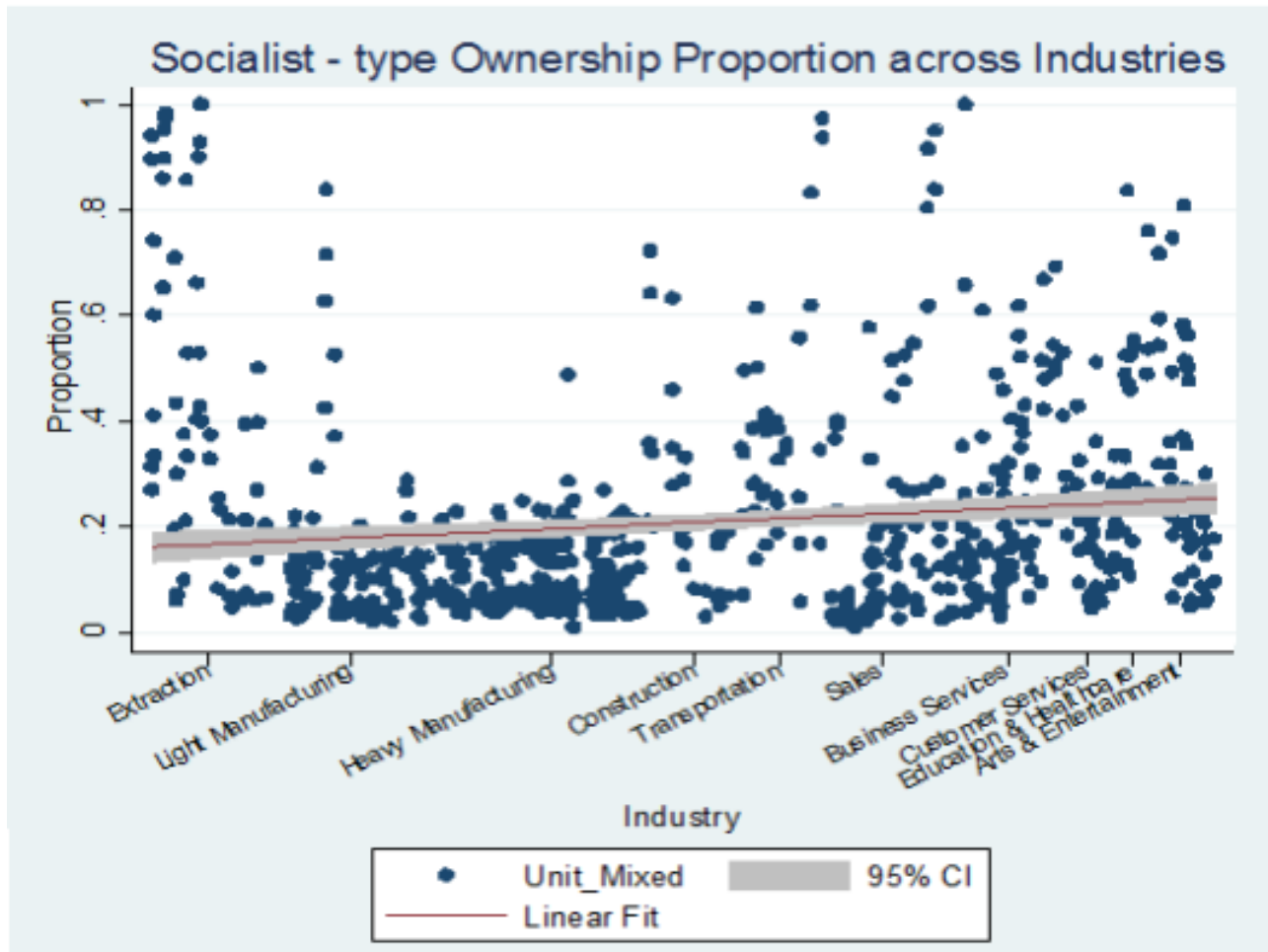


Figure 4.3. Proportion of Firms Registered as Privately-owned by Industry, CEC 2004-2008.

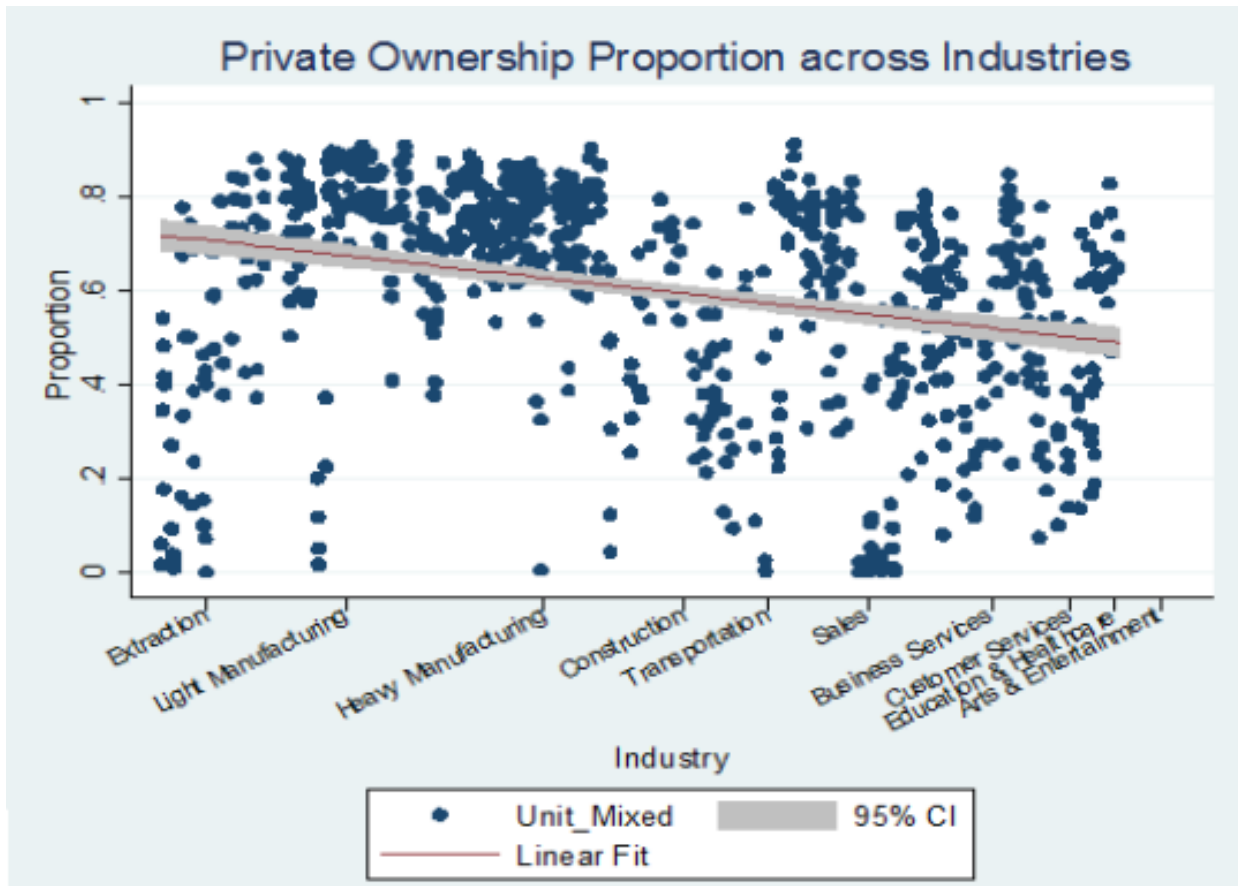


Figure 4.4. Proportion of Firms Registered as Mixed-ownership by Industry, CEC 2004-2008.

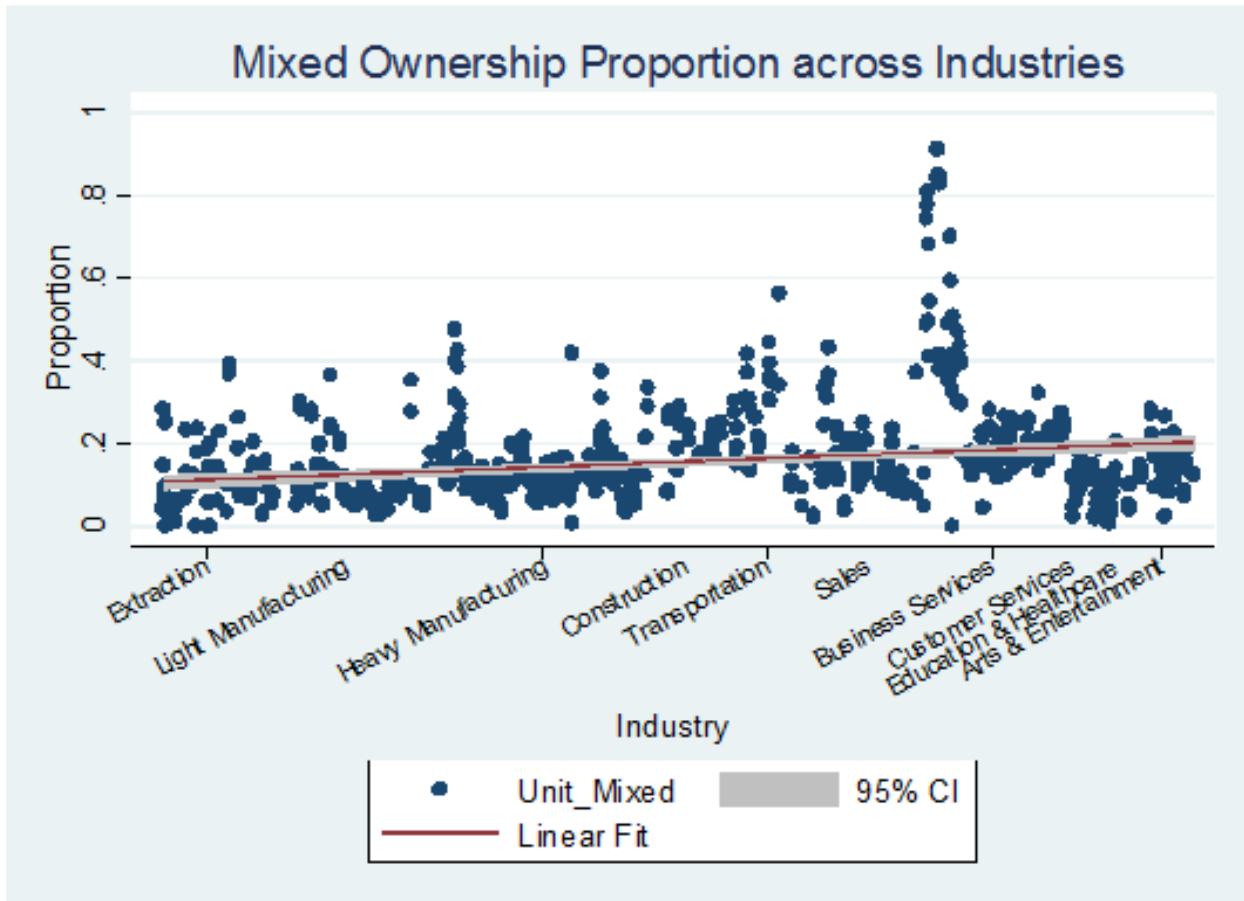


Table 4.1. OLS Regression Results for Variables Predicting the Proportion of Socialist-type Firms Found in an Industrial Sector, CEC 2004-2008

	Combined Model A1	CEC 2004 Model B1 Model B2 Model B3			CEC 2008 Model C1 Model C2 Model C3		
<i>High Employment</i>	0.453 (1.84)	-0.032 (0.43)	-0.138* (2.27)	-0.076 (1.43)	-0.150* (2.38)	-0.272** (4.43)	-0.174** (3.11)
<i>Above Scale</i>	-1.113** (7.69)	-0.311 (1.51)	-0.101 (0.60)	0.039 (0.23)	-0.070 (0.45)	0.152 (1.58)	0.174 (1.93)
<i>High Stakes</i>	0.407 (1.90)	0.607** (4.00)	0.308* (2.48)	0.104 (0.75)	0.563** (3.93)	0.102 (1.38)	-0.003 (0.04)
<i>Communist Era</i>			-0.147 (0.55)	-0.145 (0.59)		-0.302 (0.63)	-0.421 (1.05)
<i>First Wave</i>			-0.056 (0.35)	-0.045 (0.31)		-0.410 (0.73)	-0.552 (1.12)
<i>Second Wave</i>			-0.976** (11.33)	-0.866** (9.25)		-1.406** (3.63)	-1.431** (4.31)
<i>Modern Era</i>			-0.361 (1.27)	-0.517 (1.72)		-1.411** (2.67)	-1.489** (3.29)
<i>Core Businesses</i>				-0.030 (1.49)			-0.007 (0.59)
<i>State Security</i>				0.041 (1.06)			-0.003 (0.10)
<i>Natural Oligopolies</i>				0.108 (1.92)			0.085* (2.34)
<i>Public Goods and Services</i>				0.070 (1.93)			0.041 (1.80)
<i>Heavy Manufacturing</i>				-0.072** (4.97)			-0.060** (6.98)
<i>Extraction</i>				-0.057 (0.96)			-0.047 (1.04)
<i>Down Streaming</i>				0.028 (1.21)			0.036* (2.24)
<i>Coastal</i>				-0.079 (1.35)			-0.050 (1.24)
Constant	0.160 (1.70)	0.181** (6.90)	0.899** (10.34)	0.920** (8.52)	0.062** (2.95)	1.441** (3.01)	1.536** (3.93)
Observations	750	375	375	375	375	375	375
R-squared	0.31	0.16	0.44	0.51	0.19	0.63	0.70

Robust t statistics in parentheses

* significant at 5%; ** significant at 1%

Table 4.2. OLS Regression Results for Variables Predicting the Proportion of Private Firms Found in an Industrial Sector, CEC 2004-2008

	Combined Model D1	CEC 2004 Model E1 Model E2 Model E3			CEC 2008 Model F1 Model F2 Model F3		
<i>High Employment</i>	-0.117** (0.0577)	0.278*** (0.0741)	0.313*** (0.0837)	0.209*** (0.0740)	0.495*** (0.0727)	0.574*** (0.0729)	0.395*** (0.0698)
<i>Above Scale</i>	0.843*** (0.129)	0.363** (0.174)	0.242 (0.160)	0.0809 (0.136)	-0.00357 (0.201)	-0.211 (0.189)	-0.253 (0.168)
<i>High Stakes</i>	-1.023*** (0.0930)	-1.106*** (0.121)	-0.925*** (0.105)	-0.648*** (0.107)	-1.011*** (0.167)	-0.611*** (0.127)	-0.384*** (0.141)
<i>Communist Era</i>			0.0649 (0.203)	0.132 (0.173)		-0.0675 (0.483)	0.0756 (0.443)
<i>First Wave</i>			-0.306*** (0.108)	-0.273*** (0.104)		-0.362 (0.526)	-0.117 (0.462)
<i>Second Wave</i>			0.670*** (0.0750)	0.607*** (0.0870)		0.836** (0.396)	0.838** (0.378)
<i>Modern Era</i>			-0.451 (0.284)	-0.147 (0.263)		0.680 (0.505)	0.817* (0.448)
<i>Core Businesses</i>				0.0241 (0.0205)			0.0164 (0.0154)
<i>State Security</i>				-0.0199 (0.0288)			0.00622 (0.0314)
<i>Natural Oligopolies</i>				-0.119*** (0.0444)			-0.0850** (0.0409)
<i>Public Goods and Services</i>				-0.0910** (0.0371)			-0.0725** (0.0341)
<i>Heavy Manufacturing</i>				0.0718*** (0.0146)			0.0898*** (0.0116)
<i>Extraction</i>				0.145*** (0.0527)			0.159** (0.0615)
<i>Down Streaming</i>				-0.0479** (0.0202)			-0.0556*** (0.0163)
<i>Coastal</i>				0.137*** (0.0458)			0.153*** (0.0583)
Constant	0.747*** (0.0289)	0.649*** (0.0242)	0.330*** (0.0756)	0.202** (0.0967)	0.756*** (0.0206)	0.0665 (0.465)	-0.157 (0.414)
Observations	750	375	375	375	375	375	375
R-squared	0.30	0.439	0.573	0.650	0.373	0.558	0.655

Robust t statistics in parentheses

* significant at 5%; ** significant at 1%

Table 4.3. OLS Regression Results for Variables Predicting the Proportion of Mixed-ownership Firms Found in an Industrial Sector, CEC 2004-2008

	Combined Model G1	CEC 2004 Model H1 Model H2 Model H3			CEC 2008 Model I1 Model I2 Model I3		
<i>High Employment</i>	-0.107** (0.0467)	-0.228*** (0.0607)	-0.149*** (0.0424)	-0.116*** (0.0414)	-0.321*** (0.0382)	-0.270*** (0.0412)	-0.197*** (0.0392)
<i>Above Scale</i>	-0.0788 (0.110)	-0.0514 (0.173)	-0.151 (0.133)	-0.116 (0.146)	0.129 (0.155)	0.0972 (0.139)	0.123 (0.135)
<i>High Stakes</i>	0.403*** (0.0993)	0.496*** (0.103)	0.627*** (0.0848)	0.564*** (0.101)	0.438*** (0.0983)	0.525*** (0.0839)	0.395*** (0.113)
<i>Communist Era</i>			0.0351 (0.167)	-0.00298 (0.174)		0.250 (0.288)	0.215 (0.361)
<i>First Wave</i>			0.415*** (0.112)	0.392*** (0.106)		0.562* (0.308)	0.455 (0.363)
<i>Second Wave</i>			0.343*** (0.0563)	0.327*** (0.0609)		0.487* (0.257)	0.493 (0.333)
<i>Modern Era</i>			0.854*** (0.218)	0.760*** (0.220)		0.641** (0.288)	0.568 (0.348)
<i>Core Businesses</i>				-0.0157 (0.0137)			-0.00879 (0.0115)
<i>State Security</i>				-0.0177 (0.0250)			-0.00750 (0.0178)
<i>Natural Oligopolies</i>				0.0152 (0.0350)			0.00281 (0.0281)
<i>Public Goods and Services</i>				0.0284 (0.0207)			0.0313 (0.0194)
<i>Heavy Manufacturing</i>				0.00120 (0.00905)			-0.0147* (0.00777)
<i>Extraction</i>				-0.0502 (0.0444)			-0.108** (0.0501)
<i>Down Streaming</i>				0.0218 (0.0137)			0.0248** (0.0113)
<i>Coastal</i>				- 0.0362 (0.0410)			-0.107** (0.0507)
Constant	0.106*** (0.0136)	0.132*** (0.0142)	-0.305*** (0.0540)	-0.252*** (0.0567)	0.127*** (0.0101)	-0.469* (0.276)	-0.324 (0.330)
Observations	750	375	375	375	375	375	375
R-squared	0.33	0.346	0.504	0.520	0.375	0.462	0.525

Robust t statistics in parentheses

* significant at 5%; ** significant at 1%

Table 4.4. Capital Source as a Proportion of Total Capital Invested in a Firm, ASIF 1998-2007.

Proportion of Total Capital		Standard			
		Mean	Deviation	Min	Max
Corporate Capital	overall	17.92%	34.26%	0%	100%
	between firms		22.96%	0%	100%
	within a firm over time		25.43%	-72%	108%
State Capital	overall	36.48%	44.74%	0%	100%
	between firms		36.51%	0%	100%
	within a firm over time		25.86%	-54%	126%
Private Capital	overall	24.64%	40.19%	0%	100%
	between firms		31.98%	0%	100%
	within a firm over time		24.34%	-65%	115%

Overall observations= 361,450; Between observations= 36,140; Within observations= 10

Table 4.5. Summary Statistics for Independent Variables, ASIF 1998-2007.

Variable		Mean	Standard Deviation	Min	Max	Observations
Employment (in thousands)	overall	0.576	2.557	0	166.9	N = 361450
	between		2.448	0	133.7	N = 36145
	within		0.740	-71.6	95.4	T = 10
Total Assets (in million RMB)	overall	0.180	1.355	0	128.3	N = 361450
	between		1.174	0	69.0	N = 36145
	within		0.676	-68.8	74.7	T = 10
Annual Revenue (in million RMB)	overall	0.246	2.559	0	524.3	N = 156808
	between		1.889	0	162.2	N = 36145
	within		1.768	-160.4	362.4	T-bar = 4.34
Annual Profit (in million RMB)	overall	0.009	0.115	-2.0	20.9	N = 361450
	between		0.085	-0.3	4.9	N = 36145
	within		0.077	-5.5	17.2	T = 10
Age (as of 2015)	overall	29.663	14.540	8	170.0	N = 361450
	between		13.416	14.3	155.8	N = 36145
	within		5.607	-67.1	134.8	T = 10
Core Businesses	overall	0.041	0.199	0	1	N = 361450
	between		0.182	0	1	N = 36145
	within		0.079	-0.9	0.9	T = 10
State Security	overall	0.027	0.162	0	1	N = 361450
	between		0.159	0	1	N = 36145
	within		0.034	-0.9	0.9	T = 10
Natural Oligopolies	overall	0.074	0.262	0	1	N = 361450
	between		0.257	0	1	N = 36145
	within		0.055	-0.8	1.0	T = 10
Heavy Manufacturing	overall	0.472	0.499	0	1	N = 361450
	between		0.472	0	1	N = 36145
	within		0.162	-0.4	1.4	T = 10
Public Goods and Services	overall	0.005	0.069	0	1	N = 361450
	between		0.046	0	0.6	N = 36145
	within		0.052	-0.6	0.9	T = 10
Extraction	overall	0.039	0.193	0	1	N = 361450
	between		0.189	0	1	N = 36145
	within		0.038	-0.9	0.9	T = 10
Down Streaming	overall	0.477	0.499	0	1	N = 361450
	between		0.460	0	1	N = 36145
	within		0.193	-0.4	1.4	T = 10

Table 4.6 Time-series Regression Results for Variables Predicting the Proportion of Capital from State, Private, and Mixed Sources within Firms, ASIF 1998-2007

VARIABLES	State Capital			Private Capital			Corporate Capital		
	Model J1	Model J2	Model J3	Model K1	Model K2	Model K3	Model L1	Model L2	Model L3
<i>Employment</i> ^A	0.00345 (0.00223)	0.00343* (0.00192)	0.00340* (0.00192)	0.000100 (0.00153)	0.000109 (0.00132)	6.13e-05 (0.00135)	-0.00372** (0.00148)	-0.00371*** (0.00141)	-0.00364*** (0.00141)
<i>Total Assets</i> ^B	-0.00635** (0.00284)	-0.00541** (0.00267)	-0.00532** (0.00265)	0.00200*** (0.000771)	0.00146** (0.000704)	0.00142** (0.000698)	0.00385* (0.00220)	0.00349 (0.00213)	0.00344 (0.00213)
<i>Annual Profit</i> ^B	-0.0407** (0.0199)	-0.0394** (0.0194)	-0.0390** (0.0193)	0.0113 (0.00692)	0.0106 (0.00666)	0.0100 (0.00666)	0.0209 (0.0154)	0.0204 (0.0152)	0.0204 (0.0152)
<i>Age in 2015</i>		0.00545*** (0.000279)	0.00543*** (0.000278)		-0.00315*** (0.000248)	-0.00313*** (0.000247)		-0.00209*** (0.000227)	-0.00209*** (0.000227)
<i>Core Businesses</i>			-0.00549 (0.0160)			0.0123 (0.0168)			-0.00320 (0.0162)
<i>State Security</i>			-0.0182 (0.0416)			0.0640 (0.0413)			-0.0481 (0.0333)
<i>Natural Oligopolies</i>			-0.0124 (0.0666)			-0.0752 (0.0751)			0.0778* (0.0464)
<i>Public Goods & Services</i>			0.0493 (0.0698)			-0.114 (0.0758)			0.0578 (0.0483)
<i>Heavy Manufacturing</i>			0.0147 (0.00894)			-0.0172* (0.00909)			0.00606 (0.00873)
<i>Extraction</i>			0.0553* (0.0331)			-0.0636** (0.0268)			0.00720 (0.0272)
<i>Down Streaming</i>			-0.0538*** (0.00787)			0.0408*** (0.00775)			0.0123* (0.00737)
Constant	0.296*** (0.00129)	0.139*** (0.00809)	0.159*** (0.0114)	0.290*** (0.000882)	0.380*** (0.00715)	0.374*** (0.0110)	0.204*** (0.000811)	0.265*** (0.00659)	0.250*** (0.00926)
Observations	361,450	361,450	361,450	361,450	361,450	361,450	361,450	361,450	361,450
R-squared	0.001	0.011	0.012	0.000	0.003	0.004	0.000	0.001	0.001
Number ID Codes	36,145	36,145	36,145	36,145	36,145	36,145	36,145	36,145	36,145

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

^A Employment in 1000 individuals
^B Assets and Profit in 1 million RMB

Table 4.7 Time-series Regression Results for Variables Predicting the Proportion of Capital from State, Private, and Mixed Sources within Firms, lagged one year, ASIF 1998-2007.

VARIABLES	State Capital			Private Capital			Corporate Capital		
	Model P1	Model P2	Model P3	Model Q1	Model Q2	Model Q3	Model R1	Model R2	Model R3
<i>Employment</i> ^A	0.00543*** (0.000983)	0.000178 (0.00174)	0.000130 (0.00174)	-0.00634*** (0.00134)	-0.00113 (0.00163)	-0.00113 (0.00164)	-0.000692 (0.000600)	0.00129 (0.00126)	0.00132 (0.00127)
<i>Total Assets</i> ^B	0.00322** (0.00128)	0.000191 (0.00206)	0.000264 (0.00206)	-0.00291*** (0.000956)	0.000805 (0.000724)	0.000764 (0.000725)	0.00569*** (0.00146)	-0.00240 (0.00172)	-0.00244 (0.00172)
<i>Annual Profit</i> ^B	-0.00183 (0.0108)	0.0625*** (0.0213)	0.0629*** (0.0213)	-0.00180 (0.00864)	-0.0140* (0.00759)	-0.0144* (0.00761)	-0.0308*** (0.0114)	-0.0348** (0.0161)	-0.0347** (0.0161)
<i>Annual Revenue</i> ^B	-0.000514 (0.000369)	0.000161 (0.000217)	0.000160 (0.000217)	7.58e-05 (0.000258)	-4.27e-05 (8.57e-05)	-4.09e-05 (8.56e-05)	-0.000457* (0.000241)	-0.000196 (0.000212)	-0.000197 (0.000212)
<i>Age in 2015</i>		0.000603** (0.000257)	0.000588** (0.000257)		-7.03e-05 (0.000224)	-5.88e-05 (0.000224)		-0.000380* (0.000214)	-0.000377* (0.000214)
<i>Core Businesses</i>			-0.00828 (0.0170)			0.00674 (0.0172)			0.00499 (0.0160)
<i>State Security</i>			0.0256 (0.0414)			0.0151 (0.0388)			-0.0426 (0.0383)
<i>Natural Oligopolies</i>			-0.0302 (0.0684)			-0.0230 (0.0742)			0.0367 (0.0771)
<i>Public Goods & Services</i>			0.0621 (0.0746)			-0.0699 (0.0754)			-0.00494 (0.0795)
<i>Heavy Manufacturing</i>			-0.000750 (0.00845)			0.00452 (0.00902)			0.00429 (0.00899)
<i>Extraction</i>			0.0542 (0.0365)			-0.0398 (0.0312)			0.0129 (0.0342)
<i>Down Streaming</i>			-0.0170** (0.00772)			0.0171** (0.00775)			0.00168 (0.00749)
Constant	0.328*** (0.00189)	0.314*** (0.00743)	0.323*** (0.0108)	0.266*** (0.00186)	0.266*** (0.00648)	0.258*** (0.0104)	0.195*** (0.00134)	0.206*** (0.00620)	0.201*** (0.0103)
Observations	156,807	156,807	156,807	156,807	156,807	156,807	156,807	156,807	156,807
R-squared	0.0019	0.0483	0.015	0.0031	0.0048	0.0268	0.0007	0.000	0.0005
Number ID Codes	36,145	36,145	36,145	36,145	36,145	36,145	36,145	36,145	36,145

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

^A Employment in increments of 1000
^B Assets, Profit, and Revenue in 1 million RMB

Table 4.8 Logistic Regression Results for Variables Predicting if Firms Have Mixed Capital, ASIF 1997-2008.

VARIABLES	Mixed Capital			
	Model M1	Model M2	Model M3	Model M4
<i>Employment</i> ^A	0.0169** (0.00667)	0.0187*** (0.00695)	0.0192*** (0.00692)	0.00790* (0.00430)
<i>Total Assets</i> ^B	0.0628*** (0.0187)	0.0650*** (0.0192)	0.0752*** (0.0200)	0.0926*** (0.0191)
<i>Annual Profit</i> ^B	-0.177 (0.128)	-0.193 (0.130)	-0.255* (0.135)	-0.144 (0.117)
<i>Annual Revenue</i> ^B	0.000218 (0.00391)	-0.000166 (0.00399)	-0.00318 (0.00544)	
<i>Age in 2015</i>		-0.00224*** (0.000663)	-0.000715 (0.000677)	-0.000556 (0.000579)
<i>Core Businesses</i>			0.0494 (0.0422)	-0.000268 (0.0361)
<i>State Security</i>			-0.172** (0.0738)	-0.168*** (0.0632)
<i>Natural Oligopolies</i>			-0.599*** (0.0441)	-0.692*** (0.0414)
<i>Public Goods & Services</i>			-1.876*** (0.367)	-2.150*** (0.173)
<i>Heavy Manufacturing</i>			0.312*** (0.0242)	0.248*** (0.0189)
<i>Extraction</i>			0.0423 (0.0643)	-0.187*** (0.0549)
<i>Down Streaming</i>			-0.0886*** (0.0238)	0.00739 (0.0183)
Constant	-0.721*** (0.00976)	-0.658*** (0.0206)	-0.767*** (0.0229)	-0.790*** (0.0200)
Observations ^C	156,808	156,808	156,808	361,450

Robust standard errors in parentheses

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

^A Employment in increments of 1000

^B Assets, Profit, and Revenue in 1 million RMB

^C The differences in observations are due to Annual Revenue only being reported in half of the cases

Table 4.9 Logistic Regression Results for Variables Predicting if Firms Have Only State or Private Capital, ASIF 1997-2008.

VARIABLES	State Capital			Private Capital		
	Model N1	Model N2	Model N3	Model O1	Model O2	Model O3
<i>Employment</i> ^A	0.0327*** (0.00770)	-0.0157*** (0.00471)	-0.0200*** (0.00571)	0.0377*** (0.0437)	0.0379*** (0.0472)	0.0454*** (0.0420)
<i>Total Assets</i> ^B	0.00931 (0.00989)	-0.0112 (0.0102)	-0.0503*** (0.0159)	-0.0110*** (0.0189)	-0.0111*** (0.0183)	-0.0124** (0.0180)
<i>Annual Profit</i> ^B	-0.889** (0.402)	-0.308 (0.250)	-0.200 (0.312)	0.0012 (0.0272)	0.0013 (0.0221)	0.0017 (0.283)
<i>Age in 2015</i>		0.0549*** (0.000796)	0.0492*** (0.000795)		-0.0157*** (0.000871)	-0.0162*** (0.000864)
<i>Core Businesses</i>			0.290*** (0.0441)			0.0667 (0.0453)
<i>State Security</i>			0.490*** (0.0692)			0.108 (0.0800)
<i>Natural Oligopolies</i>			2.472*** (0.0410)			-2.372*** (0.109)
<i>Public Goods & Services</i>			3.936*** (0.172)			-4.253*** (0.534)
<i>Heavy Manufacturing</i>			0.434*** (0.0253)			0.102*** (0.0247)
<i>Extraction</i>			1.753*** (0.0604)			-0.735*** (0.0762)
<i>Down Streaming</i>			-0.120*** (0.0240)			0.161*** (0.0237)
Constant	-0.969*** (0.0103)	-2.658*** (0.0257)	-2.979*** (0.0286)	-0.735*** (0.0137)	-1.496*** (0.0169)	-0.826*** (0.0286)
Observations	361,450	361,450	361,450	361,450	361,450	361,450

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

^A Employment in increments of 1000
^B Assets and Profit in 1 million RMB

Figure 4.5 CEC Industry-level Analysis Results by Hypothesis (Tables 4.2 - 4.4)

	LME, Transition from Below	CME, Transition from Above	Developmental State, Hybrid Transition
<i>Large Employers</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Barrier to Entry</i>	State -, MOE -, Private +	State +, MOE + , Private -	State -, MOE + , Private -
<i>Above Scale</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>High Profit</i>	State -, MOE -, Private +	State +, MOE -, Private -	State -, MOE +, Private -
<i>Age</i>	State +, MOE +, Private -	State +, MOE -, Private +	State +, MOE -, Private -
<i>Core Business</i>	State -, MOE -, Private +	State +, MOE -, Private -	State +, MOE +, Private -
<i>State Security</i>	State -, MOE -, Private +	State +, MOE -, Private -	State +, MOE -, Private -
<i>Natural Oligopoly</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Public Services</i>	State -, MOE -, Private +	State +, MOE +, Private -	State +, MOE +, Private -
<i>Extraction</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Down Streaming</i>	State -, MOE -, Private +	State -, MOE + , Private +	State -, MOE +, Private -
<i>Heavy Manufacturing</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Coastal</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -

Entries in bold are statistically significant.

Figure 4.6 ASIF Firm-level Analysis Results by Hypothesis (Tables 4.8 & 4.9)

	LME, Transition from Below	CME, Transition from Above	Developmental State, Hybrid Transition
<i>Large Employers</i>	State - , MOE -, Private +	State +, MOE + , Private -	State - , MOE + , Private -
<i>Barrier to Entry</i>	State - , MOE -, Private +	State +, MOE + , Private -	State - , MOE + , Private -
<i>Above Scale</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -
<i>Age</i>	State + , MOE + , Private -	State + , MOE -, Private +	State + , MOE -, Private -
<i>Core Business</i>	State -, MOE -, Private +	State + , MOE -, Private -	State + , MOE +, Private -
<i>State Security</i>	State -, MOE - , Private +	State + , MOE - , Private -	State + , MOE - , Private -
<i>Natural Oligopoly</i>	State -, MOE - , Private +	State + , MOE +, Private -	State -, MOE +, Private -
<i>Public Services</i>	State -, MOE - , Private +	State + , MOE +, Private -	State + , MOE +, Private -
<i>Extraction</i>	State -, MOE - , Private +	State + , MOE +, Private -	State -, MOE +, Private -
<i>Down Streaming</i>	State - , MOE -, Private +	State - , MOE +, Private +	State - , MOE +, Private -
<i>Heavy Manufacturing</i>	State -, MOE -, Private +	State + , MOE + , Private -	State -, MOE + , Private -
<i>Coastal</i>	State -, MOE -, Private +	State +, MOE +, Private -	State -, MOE +, Private -

Entries in bold are statistically significant.

5. Conclusion: Potential for Further Development

“It is too soon to study mixed-ownership; come back in ten or twenty years.”

-A professor of Industrial Economics at Fudan University

When this project was first conceived in 2008, the Chinese economy was the hottest on the planet, having achieved unheard of rates of growth not only for years, but for decades. Optimism about Chinese exceptionalism was high, and it made sense to look to China to find what made its economy unique, whether it was “capitalism with Chinese characteristics” or “market socialism,” so that other countries could attempt to replicate the developmental success. The most ardent supporters of the Chinese model even went so far as to predict a coming “Chinese Century” with the rise of a Chinese hegemonic state to balance a multi-polar world (e.g. Breslin 2011; Arrighi 2007).

This project was no different, as I thought that the heralded expansion of the private sector, and consequent reduction in direct state intervention in the economy, was perhaps overstated. Instead, by 2008 it was evident that this state-private dichotomy was too simplistic, after the CPC had spent a decade transforming firms by opening up SOEs to private funding, and granting -or perhaps forcing- private firms access to state investment. Development of such hybrid, mixed-ownership firms in itself might not have been entirely novel, but deploying these widely across various industries would be.

Between the initial spark that led to this project and its culmination seven years later, much has changed. Global recession after 2008 damaged all of the economic powers, and China's growth finally slowed to single digits, destroying most of the prior optimism about the country's model. Instead of seeking to essentialize the Chinese experience for emulation in other contexts, it is instead tempting to excoriated China and the CPC for mismanagement, and for creating or allowing serious economic bubbles to form and burst. I maintained my initial optimism, and sought the unique attributes of the Chinese model throughout the intervening seven years.

The results of this research do not strongly support of a strong developmental plan implemented by the state apparatus. Instead, the results describe a new era in an ongoing transformation, a project so large that even after more than thirty years, the CPC still relies on slowly-phased-in modifications, on experimentation, on trial *and* error. MOEs seem to have no coherent strategy, state or otherwise, guiding their development. This lack of clear patterns suggests that the formal property rights remain ambiguous in China, forcing actors at different levels of the state and economy to operate as best as they can to take advantage of opportunities that arise in an environment of political and social uncertainty about the economy. Though the forms differ, this is surprisingly similarly to the origin of recombinant property in Hungary (Stark 1992). However, the Chinese experience shows that economic development can occur even when property rights are confusingly implemented by the state and poorly understood by private actors.

This finding is useful and timely, because mixed ownership in China, if the rhetoric of the central government in the 3rd and 5th Plenums of the 18th Central Committee can be believed, is not going away any time soon. Furthermore, as the findings in this dissertation show, MOEs do appear in nearly every part of the economy, and have not been relegated to only small or insignificant sectors; quite the opposite occurred during between 1998 and 2007, with MOEs playing important roles among large firms in many important industries. Instead of being phased out, mixed ownership corporations, as a young institutional form in China, have the potential to grow into the critical feature of a Chinese type of capitalism, if they are well used in the future. The state and the private sector simply need time to discover their best implementation, including generating trust in the behavior of the state-as-owner by private investors, and to not allow MOEs to become merely proxies for state or private actors.

That usage may yet resemble the hybrid economy described by the developmental state model. This model expected dramatic reductions in SOEs in every industry but the few most critical to state

security. Instead of private firms taking over the economy, these, too, would be relatively marginalized in favor of MOEs. At present, my data analysis of this model received limited support, with the only meaningful confirmation coming from firms with high assets values. This may be interpreted as applying just to firms with a high barrier to entry, which are too expensive for most private entrepreneurs to afford, or where the risk of losing significant investments is too great if the business fails. Instead, mixed ownership solves the problem, sharing the cost and the risk between state and private actors, and reducing the burden on the state to be the sole investor.

Where, then, does this leave China in terms of the theoretical debates this work engages with? The total weight of evidence in this project points to China being on the varieties of capitalism continuum, somewhere near the European-style coordinated market economies, rather than being off the continuum entirely. Private ownership has exploded in China and makes up a major proportion of firms, employment, and revenue. But the results of this analysis confirm the expectation that the state still plays too direct of a role in the economy to accept an LME classification (Lardy 2014). Even if the Chinese government is similar to the US government in its general antagonism toward organized labor, the ASIF data show that the state simply supplies too much investment, and too many SOEs, to be considered a passive regulator of the market, as in the liberal model. By retaining a significant interest in core businesses, natural oligopolies, state security industries, provision of public goods, extraction, and heavy manufacturing, as well as in finance, electricity, gas, and water, and agriculture, it seems that the state has outsourced much of the economy to the private sector, while retaining most command and control functions, so as to directly coordinate the economy. Where private firms exist, such as manufacturing, extraction, and consumer services, there may still be relatively little trust in the state, indicated by the limited acceptance of mixed ownership.

On the other end of the VoC spectrum, it is possible that the extent of direct coordination

between the state and firms in China exceeds that of the CME exemplars in Europe, but mixed ownership seems like a step in a more moderate direction. Beyond the direction that China seems to be moving as it emphasizes mixed-ownership, the recent Fifth Plenum which is crafting the 13th Five-Year Plan for the economy is emphasizing expansion of the middle class and improving quality of life throughout the country, and shifting the economy away from the export-orientation it has emphasized since the reform began. If it achieves these goals with even moderate success while maintaining similar patterns of state intervention, it would more closely resemble a traditional CME. Ultimately, it may be useful to discard these classifications in future analyses and categorize China's capitalism without the need to fit it into existing Western types (Storz et al. 2013).

The post-socialist legacy is clearly a major factor, more directly relevant in 2015 China than in most of the other former socialist nations, due to the continued dominance of the CPC in a single-party state. Beyond the political dimension, however, PST is similar to the varieties of capitalism debate; many of the expectations here depend on the elimination of the old planned economy, essentially achieved, and the eventual transition to an almost entirely-privatized, LME-style economy, which is not even on the Chinese state's agenda. Obviously, "shock therapy" privatization was not attempted in the first wave of reform, and, despite the explosion of private firms in the economy, too many firms in too many important industries remain state-owned or state-controlled. If anything, the direction of reform has been steered by the continued presence of the CPC, in a very top-down manner, and the state has yet to succumb to the greater efficiency and expertise of the private entrepreneurial class and the opportunities found in an unrestricted market. Corruption is certainly a major issue, though not in quite the same way that it was experienced in Russia, with one day's bureaucrats becoming the next day's wealthy industrialists.

An important distinction when comparing China with the other post-socialist transitions is that a

great deal of time has now passed, and the economic and geo-political environments are substantially different (Bandelj & Solinger, eds 2012). First, one of the key characteristics in determining the outcomes for China's fellow socialist states in the late 1980s and early 1990s was the opportunity to directly integrate its economy and cooperate with wealthy nations nearby in Western Europe. China, arguably, never had this opportunity, as it had relatively poor relationships with the wealthy nations near its borders at the time of its initial transition (Japan, South Korea, and Taiwan). Combined with its extremely cautious entrance into global international relations, the opportunity to be supported by wealthy allies was initially limited. Second, the global economy has changed significantly since 1979, such that what was a viable development strategy at that time has doubtlessly changed.

Arguably, the debate over post-socialist transformation should be over, and China today should be considered to have sufficient distance from both the economy and the government of the 1970s that the future will only be influenced by the socialist past in a cultural or ideological sense, rather than an institutional one. At this late stage of transformation, China has already achieved enough economic and political power to act on its own behalf, and indeed is prioritizing the role of domestic consumption in an effort to reduce reliance upon trade with other nations for meeting economic growth goals. If this next wave of transformation is achieved, in whatever form that might take, it would be yet another step away from the experiences of Eastern Europe and the former Soviet states. Patrimonial relationships may continue to remain relevant in the Chinese economy, but the same could be said in many countries, and the context of a suddenly deregulated, chaotic market is not relevant to China. Even the “privatization from below” scenario that Nee (1989) and his collaborators used to describe China has not led to a totally private economy, but to the hybrid economy that is the focus of this project. Finally, the hybrid, recombinant firms that played a key part in the transition, both for China and for some other transitional states, especially Hungary, have all but disappeared (Stark 1992, 1996; Stark

and Bruszt 1998). The hybrid firms of the modern era do not resemble the first generation of hybrid firms either structure, especially being characterized by informal networks between and among state and private actors. As mentioned above, the function of recombinant firms, serving as a temporary means of creating critical coordination in a chaotic new market, does remain relevant. This is because of the interpretation of the lack of discernible patterns among the development of modern Chinese MOEs that indicates a chaotic, unplanned process that would presumably render MOEs unnecessary when property rights and other capitalist institutions eventually become well established. One final point about PST is that, as long as SOEs are so prevalent, the possibility of outright privatization persists and the method of that privatization, and whether it is fairly done or intended merely to produce rent for some elites, could conform to certain elements of PST.

At the beginning of the theoretical discussion, I asked whether or not China is a developmental state. The most basic elements of a developmental state are not dissimilar from those of CME: powerful state agents protect and support desired industries so that they can become competitive. The key element distinguishing a developmental state from a CME, or even the much older mercantilist state, is the creation of new institutions specifically tasked with guiding the state and a private sector with which it is connected in those designated industries. These institutions could combine rationalized state coordination with rapid market responses and entrepreneurial innovation to support ideal growth. Insulated from political concerns beyond growth, as well as from rent seeking behavior, these institutions should achieve “embedded autonomy” (Evans 1995).

China clearly meets the basic test, where state actors establish development goals, then fund and protect specific businesses. SOEs, of course, cannot be party to an arrangement of embedded autonomy, being neither embedded in a network of private firms and entrepreneurs, nor autonomous from the dictates of the CPC. Some firms in the private sector may have a lingering fear of working

closely with the state and then being consumed by the state if they are too successful or deemed too important by bureaucrats with unmatched authority. This arrangement, though not necessarily true for all private firms, violates the expectations of embedded autonomy, because private firms seem to either avoid the state or are coerced by the state.

A viable alternative is the hybrid sector, which could satisfy the requirements for embedded autonomy in a way that is entirely novel compared to the original developmental state nations. Instead following the *keiretsu* or *chaebol* models of the Japanese and South Korean developmental states, the CPC would leverage the stock markets to pursue developmental goals by channeling resources to targeted firms and then acting as an owner like any other. This might amount to embedded autonomy by having both state and private actors directly embedded in a firm's corporate governance, contributing capital as well as input on desired goals and the means by which to achieve them. The firm would be relatively autonomous from state or private control because all the investors would have only one voice in making these critical decisions and, ideally, each of them would have the same general priorities as any other owner: that the firm would be profitable.

There are two problems with this scenario. The first is that the state often maintains too great a stake in firm ownership, even limiting private contributions to less than a controlling share by law. This may make it difficult to convince entrepreneurs to buy into the system, and may restrict their input excessively when they do. Second, as shown by the results of this project, there is little evidence that hybridization is the outcome of a top-down developmental strategy that targets specific industries for advancement. Without a clear developmental aim, it is difficult to make the comparison with the Japanese, South Korean, or Taiwanese cases no matter how capable and dedicated the CPC is to achieving development or how much domestic economic nationalism exists.

To summarize the main theoretical contributions of this work: it is mostly too soon to tell.

China exhibits more characteristics of a CME than an LME, of a type that would be expected under an authoritarian regime. It also is more like an underdeveloped nation facing different societal challenges than do wealthy, advanced industrial nations. China does not quite match the trajectory expected by any one of the PST theories, exhibiting characteristics of different reform pathways at different time. Finally, China does not quite match the experiences of any of the established cases of developmental states.

Furthermore, at least as of 2008, the role of MOEs did not persuasively represent a well-articulated national developmental strategy. This remains an open question, where any patterns that were observed may become obviously connected to developmental policy from the central government, or it may turn out to just be the result of individual actors responding to the various needs and opportunities that arise in their specific contexts. However, I remain curious about whether or not such strategies may yet appear in future analyses, as China moves away from needing to develop basic market mechanisms and can focus instead on better integrating the state with private investors and establishing meaningful roles or plans for MOEs. As So (2009) claims, China more closely resembled an LME than a CME model as recently as the early 2000s, and was only at the decade's end switching to a coordinated state developmentalist ideology. This is after the data in this study, but the most recent of the data used here may suggest this change.

Perhaps the most interesting results contribute to a debate about who really controls MOEs. Questions of economic control are often conveniently divided, dichotomously, between a state and private. Even the inclusion of the MOE sector only moderates this basic division by focusing on a continuum of control from totally private to totally state-owned. However, a deeper question about control remains: what interests control each of these groups and how do entrepreneurial actors and political actors compete or cooperate in China. On the one hand, the MOE sector, despite private

capital investment, could be a proxy for agents of the state to pursue state agendas. On the other hand, the MOE sector could act as an intermediate step, as so-called “red hat” firms, through which private entrepreneurs gain access to political capital and opportunities. Or, it could be a mixture of both, where political elites utilize their power to become “red capitalists” and to capture firms for private wealth (Dickson 2003, 2008). Finally, Naughton (2007) shows that, due to fragmented and competing political actors, managers of firms that are dominated by state-capital can still have a great deal of autonomy to act for the best interest of the firm, in accord with a technocratic ideal. During my interviews, a research director for a state agency pointed out that an analysis of company management could be valuable, because even though managers are almost always assigned by the state, they might want to work to improve the company. However, the decision making process is very complicated and often managers’ hands are completely tied.” Either way, the MOE sector could be a unique battleground on which a struggle for power is fought by political and entrepreneurial elites.

The results in Chapters Three and Four cannot answer the specifics of these questions, but can offer commentary on the value of these questions for future research. First, firm registration is a volatile attribute, changing frequently in many firms from one year to another, frequently back and forth between some version of state, private, hybrid, and even foreign ownership. I assume that such changes must have an underlying logic, whether for the firm or for the state, and are not merely the result of shifts in statistical categorization schemes, nor simple randomness. One interpretation of this surprising finding is that firm ownership is a dynamic characteristic that responds to changes in institutional environment, such as tax regulations or access to financing, market conditions, such as improving or worsening profit margins, and, perhaps, the choices of elites who can try to take advantage of technicalities for personal gain. A professor of economics at the Hong Kong University of Science and Technology described the listings in the registration system as “political tools, rather

than scientific categories. There are layers of truth that these categories can conceal.” The research director for a state agency also hinted at this when he told me that “for the government, mixed ownership means the introduction of private investment; but what is their strategy? When you read about the government pursuing mixed ownership, the government’s use of the term may not be exactly what [an academic] definition might be.”

The second response to this result is to question the relationship between firm registration and the actual source of capital. As shown in tables 3.9 and 3.10 in Chapter Three, it becomes apparent that there is no certainty of a relationship between the two. Instead, there were many firms that were registered as one type, but contained no capital from the appropriate source. For example, what does it mean to be registered as a SOE, but to receive 0% of your capital from state sources? This was true for almost 11% of SOEs, while 19% of private firms received no capital from private investors. The puzzle intensifies when the patterns in the regression models in Chapter Four further show that the spread of firms across the dependent variables was different for registration and capital.

To respond to the original question about the behavior of MOEs, these models show that firms that are registered as MOE, either limited liability or limited stock corporations, align more closely with the results from the SOE models, though the results are limited. MOEs, according to the findings in this dissertation, follow a similar distribution as do SOEs in the economy, including emphasizing heavy manufacturing or firms with high employment. MOEs follow a generally opposite distribution when compared to private firms on those variables, as well as extractive industries and region within China. Firms that have mixed capital, either some combination of state and private, or any amount of corporate capital, representing other mixed-ownership sources, instead align with the results for private firms. In this case, MOEs and private firms match direction of relationship on employment, extraction, and heavy manufacturing. MOEs and state firms are opposite on employment, barrier to entry (high

assets), state security, natural oligopolies, public services, and extraction. Understanding the reason for these divergent findings is challenging; the best response is a call for further research at the firm level which can specifically assess the relationship between registration, capital, actual managers, and corporate governance.

A. Refinements and Potential Future Research on this Topic

The most obvious shortcoming in this work is that the time period covered is insufficient to the change being studied. Since the modern reform era began at the same time that the data for this project begins, it will be necessary to add data from after 2007 (ASIF) or 2008 (CEC). Even by now, with the third economic census having been completed last year, and more recent ASIF data possibly becoming available, it is likely that this still would not cover a long enough time period for MOE implementation to have meaningfully different results than what was established in this work. Nevertheless, it would be interesting to update the current models to include data from the post-global recession era, and covering the end of the Hu Jintao regime and the beginning of the Xi Jinping government.

Without waiting for some unknown period of time for the transformation to continue, it is possible to extend our understanding of mixed ownership in China right now by looking into its impact on corporate governance and firm outcomes. Even the analysis conducted here only assumes the level of contact between state and private actors within a MOE, and infers the intentions of the state in implementing mixed ownership. Information on this topic is not always widely available, despite its value. Corporate governance of firms, including the relationship between managers, regulators, and stakeholders, can impact the goals, strategies, and overall effectiveness of firms. Knowing whose interests are being pursued in firms, as well as in entire industries, can contribute to understanding both the present and future of China's economy. In the future, I hope to do research on firm governance,

according to registration types and firm capital sources, through in-depth interviews with MOEs across the economy.

Notions of group power are the second major unexplored aspect of this topic and could possibly be revealing. Whether firms are controlled by the state, hybrid, or private sectors will mean relatively little if the individuals in positions of power are themselves crossing lines and serving interests other than development and economic growth. The modern hybrid sector, if used as a means to achieve development, should not be held captive to other interests. Indeed, the ideally merit-based, technocratic nature of corporatized firms and State-owned Asset Supervision and Administration Commissions (SASAC) are designed for that goal, although the reality of the situation may not meet expectations. The question, then, is what sorts of people are running these firms and institutions, and what interests are they pursuing, development, party, or self?

Given the legacy of a one-party Leninist state, one of the primary motivations driving institutional arrangements and state policy must be to preserve the legitimacy and authority of the party. The economic transformation in China clearly fits into this description, with many of the reforms, or non-reforms, being motivated by the CPC's urge to self-preservation (Nathan, 2003; McGregor 2010). The most obvious version of this is in the industries which have been kept firmly under state control - finance, telecommunications, energy - the commanding heights of the economy, or the industries which could be abused by enemies of the party. Similarly, the industries which are likely to be mostly outside of state ownership and control - retail, light manufacturing - are ones which, while providing significant economic value, carry little political weight.

The MOE sector again provides an interesting wrinkle to what would otherwise be a fairly straightforward dichotomy. From the perspective of party interests, industries in this sector represent ones that could pose some threat to the stability of the regime, but which can benefit from the broader

access to capital, people, and ideas that come with being corporatized. Industries in this sector might involve firms that are too big (e.g. in employment), or too important (e.g. providing necessary inputs to other firms) to fail. In the event that these industries or firms did fail, the resulting economic shock could provide a basis for mobilization against the party. One would expect the leadership of these industries/firms to have active, direct ties to the CPC and to face the threat of being reverted to fully state-owned status.

These questions could be addressed in two ways; first, existing firm-level data could be combined with public information about firm management and individual party affiliation to do in-depth case studies of a small number of firms. This sort of analysis would look at year-to-year changes in capital and registration, along with firm performance and labor data to infer the strategic goals of a firm's corporate governance from patterns across firms. Second, expanding on this idea, the case studies could include specially-collected information from the firms themselves, especially including material from interviews with owners, managers, and labor within the firm, and with related institutional actors outside of the firm. With this level of detail, specific conclusions could be drawn about important details of corporate governance, better informing a placement of China within the three theoretical debates in this work.

B. Final Remarks

Returning to the question of optimism or pessimism about the Chinese economy, and about the possible long-term role of MOEs within it, I believe that the results of this study indicate that the CPC *is* trying hard to transform the economy in meaningful ways, but not necessarily by following the scripts established by other countries. The state is experimenting, sometimes with good results, creating strong, innovative industries; sometimes with less than good results; sometimes with outright

bad results, leading to economic, political, and social problems. It is muddling through the complexities of managing an enormous economy that is further embedded within the yet-more-complex global economy, no less successfully than the US or EU are in their own attempts to create economic growth and, presumably, domestic social stability during the same time period.

Implementation of MOEs will likely continue for the foreseeable future. As China develops its own interior, as well as its own middle class, there is still a great need for innovation to spur that development. Not only was mixed ownership a fairly large and important portion of the economy at least as of 2008, the CPC continues to explicitly include mixed ownership in its political language, including recent official communiques of the national plenums indicating that the state is “aiming to make SOEs more creative and internationally competitive, China issued a guideline earlier this month to deepen SOE reforms, in which it pledged measures to modernize SOEs, enhance management of State assets, *promote mixed ownership* [emphasis added] and prevent the erosion of State assets” (China Daily 2015). The economic transformation must continue; the state will have to create clearly defined property rights with a better organized share-holding system to restore the faith of private investors, and ensure that MOEs behave in a way that enhances the probability of meeting developmental goals. It seems that this project is still somewhat too early to see a clear impact of mixed ownership. As the Fudan University professor said to me during an interview on this topic, we should – more, we must- return to this topic in the coming years.

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Appendix 1. List of Abbreviations

ASIF	Annual Survey of Industrial Firms
CEC	Chinese Economic Census
CME	Coordinated Market Economy
CPC	Communist Party of China
DS	Developmental State Theory
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HK/MC/TW	Hong Kong/Macao/Taiwan
JO	Joint Ownership Corporation
LLC	Limited Liability Corporation
LME	Liberal Market Economy
MITI	Ministry of International Trade and Industry (Japan)
MOE	Mixed-ownership Enterprise
OLS	Ordinary Least Squares Regression
PST	Postsocialist Transition Theory
PPP	Public Private Partnerships Theory
RMB	<i>Renminbi</i>
SHC	Shareholding Corporation
SOE	State-Owned Enterprise
SASAC	State Assets Supervision and Administration Committee (China)
SDRC	State Development and Reform Commission (China)
TVE	Town and Village Enterprise

VoC Varieties of Capitalism Theory

WTO World Trade Organization