Abstract.

The paper focuses on institutional change and institution building as integral parts of economic transition in China. China’s success, particularly compared with other advanced transition economies, implies a puzzling observation: China did not apply theoretically-derived policy recommendations. Instead, authorities followed a gradual, pragmatic approach to reform, decentralize, and transform the economy. Notable examples of non-orthodox policy measures, which worked effectively in China, include so-called transitional institutions such as the dual-track approach to industrial restructuring, anonymous banking, the establishment of special economic zones or the priority given to create competitive structures while postponing large-scale privatization of state-owned enterprises.

Hence, it is not evident what kind of market economy will emerge in China in the long run. The paper aims at (i) applying the Varieties-of-Capitalism (VoC) framework to China and assessing its suitability in a transition context; (ii) addressing the question of what kind of market economy is emerging in China; (iii) analyzing the impact which the emerging type of capitalism will have on the economy’s allocative and dynamic efficiency; and (iv) elaborating policy implications which may help generate or strengthen potential institutional complementarities in the long run.

JEL classification: H0, O53, P2, P3
## List of abbreviations

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<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>ACFTU</td>
<td>All-China Federation of Trade Unions</td>
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<td>ADB</td>
<td>Asian Development Bank</td>
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<td>CCP</td>
<td>Chinese Communist Party</td>
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<td>CEE</td>
<td>Central and Eastern Europe</td>
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<td>CIS</td>
<td>Commonwealth of Independent States</td>
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<td>CSRC</td>
<td>China Securities Regulatory Commission</td>
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<td>eds.</td>
<td>Editors</td>
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<td>FASB</td>
<td>Financial Accounting Standards Board</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>IAS</td>
<td>International Accounting Standards</td>
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<td>IFRS</td>
<td>International Financial Reporting Standards</td>
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<td>IIF</td>
<td>Institute of International Finance</td>
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<td>MEGS</td>
<td>Market-Enhancing Governance Structure</td>
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<td>MNC</td>
<td>Multi-National Corporation</td>
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<td>NPC</td>
<td>National People’s Congress</td>
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<td>NPL</td>
<td>Non-Performing Loan</td>
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<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>R&amp;D</td>
<td>Research &amp; Development</td>
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<tr>
<td>RMB</td>
<td>Renminbi (Chinese currency)</td>
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<td>SFAC</td>
<td>Statements of Financial Accounting Concepts</td>
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<td>SME</td>
<td>Small and Medium sized Enterprises</td>
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<td>SOE</td>
<td>State-Owned Enterprise</td>
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<td>SHSE</td>
<td>Shanghai Stock Exchange</td>
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<td>SZSE</td>
<td>Shenzhen Stock Exchange</td>
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<td>TQM</td>
<td>Total Quality Management</td>
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<td>TVE</td>
<td>Town or Village Enterprise</td>
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<td>US-GAAP</td>
<td>U.S. Generally Accepted Accounting Principles</td>
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<td>VET</td>
<td>Vocational Education and Training</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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1 Introduction

One of the most important events in modern economic history is the socialist countries’ transition from a centrally planned economy to a capitalist market economy that started in the last two decades of the 20th century. China’s transition was very successful compared to the difficulties experienced by countries in Central and Eastern Europe and the former Soviet Union: China’s annual economic growth has been consistently higher than 7% for the last decade; the country has managed to attract increasing amounts of FDI and successfully fought poverty across the nation. China did however not follow theoretic policy recommendations developed by Western think tanks such the IMF or the World Bank, but pursued an incremental, gradual, and highly pragmatic “Chinese” approach to transform its economy into a capitalist system.

The ‘Varieties of Capitalism’ literature claims that there are two coordination regimes that vary systematically across countries: at one end of the spectrum there are liberal market economies (LMEs) that use markets as their main means of coordinating economic activity. At the other end, coordinated market economies are identified that rely more heavily on non-market institutions to solve their coordination problems. This binary classification of national forms of capitalism leaves many countries in an ambiguous position, since they cannot be clearly categorized. France and Italy are examples of such intermediate countries in the developed world. One crucial characteristic of the ‘Varieties of Capitalism’ approach is that it has been developed to analyze advanced market economies and does not offer any theoretic explanation as to how to classify transition economies – such as China. The objective of this paper is to apply the ‘Varieties of Capitalism’ framework to the institutional reform process in China and to test its validity within a transition context. The ‘Varieties of Capitalism’ analysis will serve as a foundation to derive an answer to the question as to what kind of capitalism is currently being developed in China. Has China’s transition process taken the way towards a LME or rather a CME or does China actually represent a certain third “hybrid form” of capitalism that cannot be classified according to the standard ‘Varieties of Capitalism’ concept? How efficient, stable and sustainable is China’s variety of capitalism?

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3 Cp. AMABLE (2003), p. 79.
In order to address these questions, this research paper is organized as follows. First, necessary background information on the ‘Varieties of Capitalism’ theory that frames this research into China’s economic transition is presented. Thereafter an in-depth analysis of China’s reform process is offered focusing on those five institutions that are at the core of the ‘Varieties of Capitalism’: the development of China’s financial system, industrial relations, the country’s inter-firm relationships and intra-firm relations, as well as the situation of education and vocational training. The paper then moves on to offer an insight into the interplay of the described institutions and addresses the question whether the Chinese model is complementary and therefore efficient. During the course of the analysis, several questions arise around the applicability of the ‘Varieties of Capitalism’ approach within a transition context. The postulates of the ‘Varieties of Capitalism’ framework are critically reflected when it is applied within a transition context and major shortcomings are discussed. Finally a perspective on what kind of capitalism is really emerging in China is offered: a hybrid form that does neither adhere to a LME nor a CME model will be put up for discussion. A critical review of the main findings concludes.

2 The ‘Varieties of Capitalism’ approach

Since the breakdown of communism at the end of the 20th century, capitalism is considered as the unrivalled model of economy and society – a conviction deeply rooted in Western culture.\(^4\) The early 1990s saw a widespread ascendancy of neo-liberal thought indicating that a singular world of market unification and institutional convergence was about to emerge. But soon after this vision of a unitary and all-encompassing capitalism had been expressed, critics of this concept started to voice their concerns, pointing to “ostensibly resilient differences in the organization and trajectories of capitalist systems, regimes and models”.\(^5\)

The “Varieties of Capitalism” literature offers extensive studies on the historical evolution of different national types of capitalism in developed economies - notably of Britain, the US, Japan and Germany. It provides a framework for analyzing and understanding the institutional similarities and differences among developed economies. Especially Hall and Soskice (2001)\(^6\)

present a central framework claiming that national economic development and economic policies in advanced economies follow path-dependent trajectories of two kinds: liberal market economies (LMEs) and coordinated market economies (CMEs) that differ with regard to the types and configurations of their implied economic institutions. LMEs are exemplified by the US, Great Britain, Canada, Australia and New Zealand, CMEs by Germany, Sweden, Switzerland, the Netherlands, Norway, Austria, Denmark and Japan. Both types are seen as extreme forms of political economies that represent the two limits of a spectrum along which nations can be arrayed.

In LMEs, transactions are mainly organized through competitive market arrangements and hierarchies. The preference for market oriented institutions within LMEs induces a typical pattern of corporate behavior: firms will invest in “switchable assets” such as general skills and multi-purpose technologies, because these do not tie up corporate resources in the long-run, but instead facilitate a short-run realization of value.\(^7\) This implies that companies are inclined to be more attentive to current earnings and to their share price on equity markets. Moreover, LMEs are characterized by deregulated labor markets, and strong product-market competition. In CMEs, however, there is a much higher tendency to invest corporate resources into “specific assets”, the value of which cannot be realized rapidly, but which is instead based on both the availability of patient capital and the expectation of complementary, cooperative behavior of other actors.\(^8\) Hence, a longer-term orientation prevails, and coordination problems are primarily solved drawing on non-market relationships such as networks and centralized associations – the so-called strategic coordination. This preference for network-based approaches in one sphere – e.g. in the financial system – is likely to produce mutually reinforcing spillover effects in related institutional domains:\(^9\) Therefore, other characteristics of CMEs include cooperative industrial relations, high levels of vocational training, weakened product-market competition and strong information exchanges through more or less formal professional associations favoring the establishment of common industrial standards.\(^10\) Both types thus represent coherent configurations of complementary institutional elements meaning that they are presumed to be stable and self-reinforcing. They are hence expected to react in more or less predictable ways: an

economic crisis would give rise to market-oriented policy responses or to coordinated policy responses, respectively.\textsuperscript{11}

\textit{Emergence and Change of Institutions}

When analyzing a transition economy, key attention must be given to an understanding as to how institutions – the deliberate incentive structure of a society - change and evolve. This paper is based on North’s (2005) concept of institutional change. Institutions conceived as the formal and informal rules of the game define the constraints on patterns of human interaction. In an economic sense this means interaction in order to deal with scarcity, hence competition for resources.\textsuperscript{12} The structure a society imposes to order that competition shapes the way the game is played.\textsuperscript{13} Change in this structure is brought about by agents, namely decision makers in organizations, who act depending on the opportunities they see that again depend on their mental models. So either through external changes in the environment or through changed mental models (e.g. due to new knowledge/skills) institutional change will be initiated by these agents. Thereby, alternative choices become superior, and change in the design of an institution occurs, if altering the existing framework is less costly than contracting within the old one. Changes in the formal rules may stem from legislative changes such as passing a new law.\textsuperscript{14} Changes in informal rules (e.g. norms, conventions) arise gradually and often rather subconsciously and more slowly as individuals develop alternative patterns of behavior that are in line with their new evaluation of costs and benefits. Hence, change is usually an incremental and path-dependent process: “The reason is that the economies of scope, the complementarities, and the network externalities that arise from a given institutional matrix of formal rules, informal constraints, and enforcement characteristics will typically bias costs and benefits in favor of choices consistent with the existent framework.”\textsuperscript{15} Thus, the direction of change processes is determined by path dependence, because political and economic organizations which have emerged as a result of the institutional matrix naturally have a stake in maintaining the existing framework. The remaining question, particularly in analyzing the successful transition case of China, is how an institutional matrix emerges that encourages productive activity. Particularly in a transition context, many

\begin{thebibliography}{99}
\bibitem{11} Cp. MILLER (2005), p. 16.
\bibitem{13} Cp. NORTH (2005), p. 1.
\bibitem{14} Cp. HALL/ THELEN (2005), p. 23.
\bibitem{15} NORTH (1994), p. 6.
\end{thebibliography}
former socialist economies such as Russia have learned painfully that the underlying institutional framework was the source of their poor performance in their transition process and have now been trying to find ways to restructure the institutional framework to redirect incentives that in turn will direct organizations to a productivity-enhancing path. This paper seeks to shed some light on the reasons why China has managed to embark on a productivity-enhancing path by focusing on gradual change processes of key institutions.

**Institutional complementarity**

Institutional complementarity would exist if one (or more) institution(s) enhance the effects of (an)other institution(s). For example, if the efficacy of labor market institutions depends on a specific type of institutions for corporate governance, then efforts to assess the impact of labor market arrangements that do not also consider the nature of corporate governance may generate misleading conclusions.\(^{16}\) This interaction effect holds for most kinds of institutions. Streeck, Crouch and other researchers point out that institutions are not always designed to be complementary – complementarity is often discovered at a later stage in time.\(^{17}\) This means that a high degree of experimentation is involved in the process of institution creation. The key lies in the perspective which regards political action as driven by the interests of individual actors, meaning that “politics is usually about who gets what, when, where and how.”\(^{18}\) As an actor-centered and rationalist approach, the ‘Varieties of Capitalism’ theory conceptualizes the political economy as an environment populated with entrepreneurial actors seeking to advance their interests as they construe them and looking for ways to make institutions work for them.

The notion of complementarity implies that it is not possible for a capitalist regime to easily switch from one system to the other. Self-reinforcing differences imply diversity in forms of capitalism, which represent a so-called comparative institutional advantage of nations: LMEs exhibit different patterns of innovation and technological change as well as a different industrial specialization compared to their CME counterparts. LMEs have a comparative advantage in industries where competitiveness is based on a firm’s ability to quickly adapt to changing market conditions. Radical innovation patterns prevail. CMEs, on the other hand, have their competitive

\(^{16}\) Cp. HALL (2005), p. 373.
\(^{17}\) Cp. CROUCH ET AL. (2005).
\(^{18}\) HALL (2005), p. 376.
advantage in industries where success is based on building up cumulative knowledge and company-specific skills. Incremental innovation prevails in this system.\textsuperscript{19}

\textit{Comparative institutional advantage}

Within the theoretic framework of the ‘Varieties of Capitalism’ literature, the concept of comparative institutional advantage plays a key role. The concept is thought to complement and extend the theory of comparative economic advantage. The latter focuses on the relative endowment of input factors (e.g. land, labor, capital) and proposes that trade will lead that country to specialize in the production of goods that uses its most abundant factors most intensively.\textsuperscript{20} This theory has its limits in explaining e.g. intra-industry trade and the causes and effects of international capital movements: according to the comparative economic advantage theory, there is no reason for a country to import and export goods from the same industry sector. Further the theory does not account for the fact that international capital transfer can change national factor endowments in a short period of time. Here is where the concept of comparative institutional advantage steps in: the main idea is that the institutional matrix of a particular economy provides firms with advantages for engaging in specific types of activities. This is because the institutional support firms receive for certain activities and the institutions relevant for such activities are not evenly distributed across nations. According to Hall and Soskice (2001)\textsuperscript{21} there is now widespread recognition among economists that the institutional matrix of a nation can condition rates of growth and technological progress. However, most endeavors to identify these institutions have focused on market relations and the legal framework and have neglected the non-market relations that may be equally important to explain such outcomes. Depending whether we analyze firm behavior in a LME or a CME, the modes of coordination will differ. In a CME, non-market coordination patterns will prevail. The availability of a certain institutional matrix hence conditions the efficiency with which a firm can perform distinct activities and produce certain kinds of goods and services. This means that the institutional matrix provides a nation with comparative advantages in particular activities. Due to international trade, this comparative institutional advantage will lead to patterns of distinct specialization across nations. One important type of comparative institutional advantage is the

\textsuperscript{19} Cp. MILLER (2005), p. 17.
\textsuperscript{20} Cp. HALL/ SOSKICE (2001), p. 36.
impact of the institutional setting on patterns of innovation: radical innovation, which brings about significant shifts in product lines, goods and production processes is distinguished from incremental innovation, characterized by gradual but small-scale improvements. These patterns of innovation again have an impact on what types of products and services prevail in an economy: Radical innovation will stimulate activity in fast-moving technology sectors with R&D-intensive products such as e.g. software, biotechnology and micro-electronics. Incremental innovation however is needed to maintain competitiveness in the production of capital goods, such as machine tools and consumer durables. CMEs are defined as being better in fostering incremental innovation, since the workforce is skilled enough to come up with such innovations and secure enough on their job that they do not perceive being threatened when suggesting a product improvement but see this rather as a duty within the dimension of their job. A CME provides exactly such an environment with secure employment, autonomy from close monitoring, and the possibility to shape the decision making in the firm. Moreover, inter-firm collaboration encourages both clients and suppliers to suggest improvements to products or production processes. In contrast to this, LMEs are said to limit firms’ capacities for incremental innovation but to support radical innovation patterns: Their environment is characterized by fluid labor markets and short job tenures that inclines an employee to focus on her own career rather than to advance the firm’s success by developing general industry skills. Furthermore, contract and anti-trust laws discourage inter-firm collaboration and hence limit the potential for incremental innovation to take place. Radical innovation, however, can be frequently observed in a LME environment: highly fluid and liberal labor markets give the opportunity to an enterprise that is interested in developing a completely new product to rather easily hire the necessary experts but also to set them free again easily in case the project fails. Inter-firm relations are based mostly on markets: extensive equity markets allow firms to buy themselves into new technology by acquiring other companies and a viable venture capital scene allows scientists to market their own ideas.
3 Institutional change and complementarity in a transition economy: the case of China from a ‘Varieties of Capitalism’ perspective

Following Hall and Soskice’s concept of institutional complementarity, a qualitative analysis of the key institutional realms which are at the hear of the ‘Varieties of Capitalism’ approach is conducted for China, in order to identify elements and mechanisms of complementarity. Hence, the subsequent discussion focuses on the financial system, industrial relations, inter-firm and intra-firm relations as well as the country’s education and training system.

3.1 China’s financial system

Although there is no consensus regarding the future development of China’s economic growth, there is widespread agreement that the financial system is one of the weak links in the economy and it is estimated to hamper future economic growth.22

The evolving banking sector

On the eve of the reform process in 1978, China had only three state-owned banks.23 Until today, the banking sector has remained strongly regulated with only slow opening up due to pressure from WTO membership. The People’s Bank of China has dominated the financial landscape for a long time: it controlled almost four-fifths of all deposits in banks and credit cooperatives and was the source of 93% of all loans granted by financial institutions.24 It simultaneously served as the country’s central bank, regulating money supply and interest rates as well as managing and supervising all other institutions of the financial system. This type of monobank system was typical in many centrally planned economies.

In the course of the reform process, China’s financial system grew more complex. New banks as well as non-bank financial institutions emerged, but competition remained weak, because, e.g., interest rates remained centrally regulated. However, since these new institutions were usually not required to grant loans to money-losing SOEs, their financial strength and health grew stronger rather quickly. These new organizations have thus played a key role in making the

23 The People’s Bank of China, the Bank of China, and the Construction Bank of China.
allocation of capital more efficient – a central problem of China’s financial system that prevails to some extent until today.

The structure of China’s banking sector, dominated by four large state-owned banks, implies that the degree of competition is extremely low. The industry concentration ratio, however, has been dropping sharply since 1997 from about 92% to about 51% in 2001 after many non-state banks and intermediaries entered the market.\(^{25}\) The most important problem for the whole financial system is however the amount of non-performing loans (NPLs) within the state-owned banks. In the context of institutional complementarity, it is important to recognize that most of China’s NPLs were not inherited from the pre-reform era, but created after the reform actually began. They can be seen as a by-product of China’s strategy choice of gradualism for its economic transition to a market economy.\(^{26}\) Instead of introducing hard budget contraints for SOEs triggering a short-term increase in unemployment and a decline in output due to “big-bang” restructuring efforts, the state provided various kinds of subsidies to ensure that virtually all firms were able to stay in business.\(^{27}\) Gradual reform mainly took the form of easing the constraints faced by a market-based non-state sector rather than imposing market discipline on SOEs in an ad-hoc style. To a large extent, the build-up of NPLs in the financial system mirrors the success of economic reforms in other areas: Through price reforms, e.g., SOEs no longer had access to agricultural products and raw materials below the market price. Also the elimination of the two-tier pricing system of foreign exchange in 1994 put an end to the preferential treatment of SOEs that had granted them privileged access to foreign exchange. In addition, many reform measures that needed to be implemented after WTO accession, such as the reduction of the number of commodities requiring import licenses once used to ensure SOEs’ access to scarce commodities lead to an equal treatment of private sector firms and SOEs in many areas. In order to manage this transition for SOEs, the preferential access to loans from state banks served as an important measure to prevent these companies from bankruptcy. That way, the Chinese government has made the transition socially less costly. However, this strategy is not without danger, since the growing NPLs can become one of China’s most severe problems. Reducing the amount of NPLs to normal levels is therefore the most important task for China’s financial system in the years to come. But nevertheless this precisely illustrates the Chinese government’s

\(^{27}\) Cp. WEI (1997).
strategy of how to manage reform. Complementarity with other institutional decisions can also be found: government debt is comparatively low, which implies that the Chinese state budget can afford the high level of NPLs relatively well. Exhibit 1 compares the ratio (NPLs + Government Debt)/GDP among China, Japan, South Korea and the US for the period 1997-2002. The lower the ratio (resulting from low NPLs, low government debt, or both), the easier it is for the government to assume the NPLs.28 However, if the NPLs were to be depreciated from the banks’ balance sheets (as the WTO actually postulates), the banks would be estimated to go bankrupt.

*China’s stock market development*

Since their inception in 1990 China’s domestic stock exchanges, the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE), have seen fast growth, but they cannot yet be considered efficient since prices and investors’ behavior are not fully driven by fundamental values of listed firms. Exhibit 2 shows that China’s stock exchanges have the highest turnover velocity29 among the world’s largest exchanges, namely 224.2% in 2002.30 China’s stock market movements show patterns common to developing economies: due to poor protection of minority investors and other imperfect market regulations stock prices move more synchronously. However, China has performed better than most other transition countries when standard measures for stock market performance are analyzed, even though the country has only slowly developed a legal framework for stock markets and has a weak law enforcement record.31 Given this seeming contradiction, there must have been other governance institutions that stepped in as a substitute for this lack of formal law and law enforcement and that were thus complementary to the wider institutional transition context which the set-up of the stock market took place in. In the beginning phase, China had primarily relied on an administrative governance system built around the quota system that in turn relied on the decentralized structure of the Chinese administration.32 This quota system served two important functions and shall be briefly introduced here: it helped mitigate the serious information problems that both investors and regulators faced in China and it helped local bureaucrats to select viable companies at the IPO

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29 Turnover Velocity is defined as the total turnover for the year expressed as a percentage of total market capitalization. Cp. ALLEN/ JUN/ QIAN (2005a), p. 25.
stage. Quotas had been the basic feature of economic management and regulation in China before and during the transition period. The system was particularly designed to allocate critical resources among regions, such as credits or energy.\textsuperscript{33} The annual quota for a region, i.e. the amount of shares firms were allowed to issue to the public, was set in an intense bargaining process between central and regional authorities. The primary purpose of the central government to adapt the quota system to the stock market was to gain and maintain control over its size and stability. In practical application however, it went far beyond that: Due to regional competition, it fostered a selection and information collection process that facilitated the market development during the start-up period, since the quotas were set by the central authority drawing on the quality of the companies selected and handed in for assessment by the regional governments. Regions that performed well were rewarded by the CSRC and those whose companies failed or underperformed were punished. Regions thus had an incentive to collect and reveal critical information about the real quality of companies in their area. Based on their assessment, the CSRC then pre-selected companies that were allowed to enter the formal approval process. The quota system has significantly raised disclosure levels and transparency – critical factors for a functioning stock market. Of course the system with its inherent institutions is not built for the long-run but must be seen as a transitional institution. Today, China has already started to abandon the system and to “grow out of” the quota system.\textsuperscript{34} China is now strengthening its legal infrastructure and enforcement mechanisms.\textsuperscript{35} One major area of concern, however, is the reliability of firm-specific information as intermediaries capable of verifying information have only begun to emerge. Chinese financial reporting, accounting practices and disclosure are currently oriented to primarily meet the information requirements of taxation authorities and not those of investors.\textsuperscript{36} A separate reporting for tax and accounting purposes does not exist. The consequence is that tax laws determine how accounting is carried out in China. This system therefore paradoxically constitutes a high incentive for Chinese companies to use loopholes in the system and to modify information.\textsuperscript{37} This shows that the Chinese accounting practices are

\textsuperscript{33} Cp. PISTOR/ XU (2005), p. 196.
\textsuperscript{34} Cp. NAUGHTON (1996): The author describes China’s economic reform process as an approach of “growing out of the plan”. The quota system serves as one example for the pattern of Chinese reform in general. It was put in place in 1993 and officially abandoned in 2000.
\textsuperscript{35} Cp. LU/ YAO (2003).
\textsuperscript{37} Cp. BAI/ LIU/ SONG (2004).
still far away to fulfill the qualitative characteristics of good corporate accounting as formulated by the FASB.

In a ‘Varieties of Capitalism’ context it seems too early to derive a final judgment as to whether the Chinese stock market takes the path of a liberal or coordinated economy. Of course the low liquidity level and its still low importance as a means to finance companies point into the direction of a CME approach. However, the stock market is growing at a significant pace and its operation is maturing but it remains a young institution that still needs to take shape.

**Corporate Governance in China**

A major building block of a financial system is a country’s corporate governance structure. It describes the power-relationships between major stakeholders of an economy and therefore serves as an important and insightful domain within a ‘Varieties of Capitalism’ analysis. There are two stylized types: insider control systems that prevail in CMEs (e.g. the “Deutschland AG” in Germany) and outsider control systems that are common for LMEs.38

Banks are important players in corporate governance and enterprise monitoring. As shown in the preceding discussion, the banking system in China is still the most important external source of financing of enterprises.39 Therefore, the relationships between banks and enterprises are naturally close. The banking reform in China goes hand in hand with enterprise reform and both depend on each other. Since banks have a monitoring capacity, they constitute an important leverage for a functioning corporate governance environment: they can play an important role to counterbalance insiders on the one hand and counter possible abuse of power by holding companies on the other.40 However, a precondition for banks to take major roles in corporate governance in China is that they must have the capability and the incentives to do so. China’s banking system is however still characterized by the high share of NPLs.41 This accumulation of bad debt is mainly due to the fact that the banking system fails to efficiently allocate financial resources and to monitor enterprises.42 Banks in China are still not fully market oriented and are subject to political influence when it comes to allocating credits.43 This shows that the banking

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41 Cp. exhibit 5.
43 Cp. exhibit 6.
system in China is still not fully able to perform needed tasks in enterprise reform and cannot sufficiently play its vital role in corporate governance.

The development of corporate governance standards is also closely linked to the degree of development of the stock market, because an efficient stock market would reward better corporate governance with lower funding costs. However, despite its impressive development during the last ten years, Chinese stock markets are not yet capable of promoting good corporate governance, because China’s financial markets do not yet reward better and more transparent companies with lower-cost funds. However, as the preceding section on the stock market has shown, there is control by a set of transitional institutions that have helped the stock market to grow. But they are hardly efficient: A research conducted by the Shanghai Stock Exchange found, e.g., a number of disclosure problems among Chinese listed companies. Especially the disclosure of related party transactions is a major concern, since these transactions are often neither disclosed fully nor timely. The survey also found that the use of funds raised from the public is not fully disclosed by many corporations and discrepancies between anticipated profits and actual net income are only insufficiently explained. This poor disclosure is also due to the poor quality of audits by certified public accountants in China. Confusion often arises due to the fact that the government does not prescribe a specific accounting standard. This hampers clear comparability among the different listed companies. In addition to inadequate disclosure, selective disclosure is an important problem given the underdeveloped and speculative nature of Chinese capital markets. Companies listed on the “A share market” are e.g. not required to distribute financial reports to shareholders. It has therefore often been the case that selectively disclosed information has resulted in high share price changes or unusually high trading volumes, mostly to the disadvantage of small and medium shareholders. The main reason for these problems can be found in deficient law enforcement. Both private enforcement of investor rights and public enforcement of contractual disputes have been extremely weak in China. This underperformance leads to a vicious circle: the weak legal system firstly limits the scope of corporate governance practices a firm can follow; and secondly it predetermines the set of

46 TENEV/ ZHANG/ BREFORT (2002), p. 120.
It is interesting to note though, that China’s regulatory structures are formally based on the Anglo-American corporate governance system and are hence oriented towards a LME concept: The board of directors is the first method that shareholders have to control managers and ensure the company is run in their interest. However, everyday practice in China can differ quite substantially from the formal structure. The concept of socialist “public” ownership is still prevalent in the minds of both government officials and managers. A major problem for the functioning of Chinese boards is the high degree of insiders: Chinese reality shows that large shareholders nominate new directors in 57% of listed companies; the board of directors does so in 34% of companies, the chair of the board in 6% and existing directors in 3% of companies. In order to strengthen the independence of the board of directors, the CSRC issued guidelines for establishing an independent board of directors in listed companies in August 2001. But also independent directors face many obstacles and problems while exercising their duties. Especially the lack of a strong legal backing as well as a lack of incentives often leads to results of inferior quality.

Another important institution within corporate governance is the board of supervisors. Here, the Chinese case paints a very different picture compared to the Anglo-American approach just presented in the context of the board of directors. It could best be described as a mixture of a German supervisory committee and China’s traditional concept of employees as “masters of enterprise.” But the establishment of the supervisory board is not based on the same social and philosophical considerations that led to the German system due to the difference in historical development. The Company Law does not specify how many shareholder’s representatives and how many employees’ representatives shall set up the board of supervisors but leaves this decision to the individual company. Surveys have shown that given the SOEs tradition and history, the ratio is about 50/50. Leaders of party committees, however, tend to hold key positions such as chairs and vice chairs. Unions are not represented to a significant extent. The responsibilities of the supervisory board mainly include the following: (a) to examine the

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company’s affairs; (b) to supervise directors and managers to see whether they violate laws or regulations; (c) to require directors or managers to correct actions that have harmed the interests of the company; (d) to propose to hold extraordinary shareholder’s general meetings. Given its limited function and rather fuzzy mode of operation, the supervisory board cannot be expected to play an effective role. But it must be noted that the general philosophy behind this concept diverts significantly from a liberal approach as practiced in the US or UK. The high degree of coordination and the resemblance to the German model in many aspects leads to the conclusion that China might be trying to follow a CME path rather than that of LMEs. The picture however, is very mixed and ambiguous in the domain of corporate governance.

**Chinese corporate governance as a transitional institution**

The starting point for developing corporate governance standards in China is very different from the starting point in Europe or North America: judicial systems, capital markets, institutional investors are far less developed. Getting companies to comply with new rules will thus take time. Given the vast differences in ownership structures, business practices and enforcement capabilities, merely adopting new requirements *en masse* from North America or Western Europe would be a mistake. China must therefore develop its own institutional mix that leads to wealth-enhancing exchange processes. However, the appropriate institutional mix will not arise automatically. This means that the state needs to play a key role in “defining the rules of the game”. The development of corporate governance is to be seen as one important field embedded in a whole set of institutions which needs to be further developed. In order to create a wealth-enhancing economic foundation, secure property rights and an open market structure must be enforced, since “secure property rights give rise to (a) technological progress and (b) flexible organizational structures, and appropriate economic institutions maintain (c) open markets and (d) the constant value of money through competition between money issuing authorities.”

Corporate governance reform is therefore a long journey in China. The continued opening up of markets to competition is essential to reduce the incentives for (state-) ownership concentration and therefore to increase the incentives for dispersed shareholding, risk diversification at the

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54 Cp. MURREL (2003), pp. 28 et sqq.
level of individual or institutional wealth holders, and hence for improved governance practice. Given the size of the country and the different institutional constraints that have evolved over time, reforming corporate governance should not follow a single model but allow for diversity. “In this sense, the most dangerous reform strategy is to insist on a single organizational model for all enterprises in the country.”\textsuperscript{57} As of today, the situation in China thus paints a very ambiguous picture that is highly inconsistent with the ‘Varieties of Capitalism’ concept. German-style coordinated components have been identified as well as liberal elements: The banking system is comparable to the main-bank system in Japan and therefore close to a CME concept.\textsuperscript{58} However, the monitoring capability of Chinese banks is still very low. Further reform measures will therefore give a better insight into where the banking system is heading. Other institutions such as the general meeting of shareholders described as the “organ of power” face a similar problem of ambiguity since codified law often differs substantially from real practice. The fact that large shareholders dominate, relationships matter, and an absence of dispersed ownership structures are strong indicators for a CME environment. The same holds for the board of supervisors that draws on the German model. On the other hand the analysis has shown that China’s regulatory structures are based on the Anglo-American corporate governance system. This fact serves as a strong indicator that China is oriented towards a LME concept.

To summarize, it can be said that with a stock market still in its infancy and an inefficient banking sector and a very ambiguous picture in the domain of corporate governance, the Chinese financial system can hardly be categorized within the ‘Varieties of Capitalism’ framework. China seems to follow neither a pure shareholder nor a pure stakeholder approach. While this configuration can be efficient during the transition process, it could disappear as the economy matures. Before coming to a final conclusion on the issue of complementarity within the whole system, the remaining other institutional areas shall be analyzed.

### 3.2 Industrial relations in China

Since the beginning of reforms China’s labor force has experienced fundamental transformations. At the beginning, the majority of the work force was employed by SOEs or rural communes which guaranteed life-long employment, which led to low productivity due to

\textsuperscript{57} QIAN (1995), p. 252.
overstaffing and shirking. Reform implied powerful changes in the distribution of jobs: By the end of the 1990s, about one third of the rural labor force had moved into non-farm activities and about three fifths of the urban work force had found employment outside the state sector, e.g., in private enterprises and joint venture companies.\(^{59}\) Under socialist central planning, government agencies fiercely controlled the job market, and job changes were usually prohibited. Since 1978 a series of deregulatory reforms have established a more liberal labor market. However, the state administration continues to play an important role, and many policies as well as existing institutions still prevent the labor market from operating efficiently. Managing labor market transition is one of the most challenging tasks for the Chinese government, and the way in which regulations and other institutions evolve in response to these challenges shall be briefly discussed, in order to determine which development path China’s labor market is following.

The first wave of liberalization took place in the commodity and goods markets before the labor market was touched in China’s urban areas.\(^{60}\) Labor allocation used to be conducted by labor bureaux: Job eligibility was restricted to residents in possession of a “hukou” (i.e. a local residence permit), which entitled them to housing, food subsidy, schooling as well as retirement and health benefits. Wages were centrally determined according to a centrally administered wage grid, and the job was guaranteed for a life-time. The wage grid mainly valued ‘formal’ qualification such as education and years of experience and largely ignored an individual’s real labor productivity. These institutional arrangements imposed severe limitations on job mobility and flexibility and led to inefficient solutions.

When describing the reforms, one has to bear in mind that reform in the form of laws and regulations can often substantially differ from reality due to the severe deficiencies in law enforcement.\(^{61}\) A turning point in the reform process was the introduction of labor contracts in 1986: This new system denoted that enterprises were only responsible to workers for as long as the contract specified and were no longer required to continue to pay workers a salary after the contract had expired. The new Enterprise Law stated that “the enterprise shall have the right to employ or dismiss its staff members and workers in accordance with the provisions of the State Council.”\(^{62}\) This statement can be interpreted as a radical shift in the context of China’s recent

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\(^{60}\) Cp. HOPE/ LAU (2004), pp. 15 et sqq.
\(^{61}\) Cp. chapter 3.1.4 on corporate governance in China.
institutional history. Other institutional changes complemented this step, such as the introduction of unemployment and social security funds. By 1995, 93% of all SOE employees were under contract. The labor contract system thus represents a relatively flexible labor allocation mechanism compared to the rigid pre-reform arrangement. However, in comparison to a free labor market that one would find in a LME, the flexibility of the contract system was still limited in many ways. Severe restrictions, e.g., remained in regional mobility and, although management had gotten more control over recruitment, it was still bound to the state labor plans and could not simply dismiss employees because of overstaffing until the early 1990s. Regulations in this respect have become much more relaxed, but liberal hiring and firing has nevertheless not become common practice. Hence, a liberal labor market in the sense of a LME does not exist in China. Another factor that prevents further liberalized structures can be found in the belief systems of many Chinese managers: They choose not to dismiss employees due to their conviction that the company is a kind of “socio-political community”. Managers are responsible for that community and are judged by both their superiors and their subordinates on their success in all areas regarding community welfare, including employment.

The presented findings show that in the domain of labor relations, China has also chosen a gradual transition strategy: Firms take a more market-oriented approach in their labor relations, but the rank of a firm’s governing organizations remains important during the transition process. Also, conceptions of loyalty and fairness maintain clientelist relationships. These pre-reform ideologies continue to play a crucial role in the decision making of managers in reform-era China. Hence, the new labor system must be still regarded as an institution in transition, because the socialist ideology of supporting workers still persists in many companies. A high degree of coordination activities exist coming from two main sources: First, the state still exerts power on decision making, and, secondly, the Chinese belief system has an important effect for the management of labor relations. It can be concluded that the Chinese labor market exhibits many characteristics of a CME model.

64 Cp. MENG (2000), p. 82.
### 3.3 Inter-firm relations and R&D and technology transfer

The preceding discussion on corporate governance closely links with the subject of inter-firm relations. In CMEs, where highly liquid capital markets do not exist, these relations perform a monitoring function. In other areas such as R&D, companies in CMEs pool resources in business networks, whereas firms in LMEs rely heavily on the movement of scientific personnel across companies through a fluid labor market.

Inter-organizational business networks exist in order to enhance the survival and capabilities of organizations by providing opportunities for shared learning, knowledge transfer and other resource exchanges. Since firms cannot generate all required resources internally, they must conduct exchanges with other firms or organizations. Organizational networks emerge that connect and transfer complementary and interdependent competencies between firms.

Guanxi (i.e., “relationship” or “connection”) is a cultural characteristic that has powerful consequences for inter-personal and inter-organizational dynamics in Chinese society. Guanxi has been developed over many centuries in China and is embedded in every aspect of personal and organizational interactions. Given its strong institutional effect on firm operations in China’s transition economy, it is necessary to discuss implications of this phenomenon as to how it shapes inter-firm relations in China. Guanxi has its origins in Confucianism which fosters collectivism and thus the importance of networks and inter-personal relationships. It can be described as a form of “social capital” because it involves the exchange of social obligations. This reciprocal exchange of favors is essential to grow and sustain guanxi. “The rules of reciprocity in guanxi establish a structural constraint that curtails self-seeking opportunism and preserves social capital within the existing network structure.”\(^\text{67}\) Guanxi has remained a critical factor in firm performance in contemporary China. It structures the pattern how a firm interacts with its environment and therefore has a direct influence on the flow of resources. As China develops further and continues its economic reform guanxi has become even more important in the context of managing the newly arising uncertainty. Guanxi has an impact on financial outcomes, market benefits and competitive advantages.\(^\text{68}\) The underlying logic for Chinese firms is to utilize guanxi to manage organizational interdependence and to deal with institutional disadvantages and other structural weaknesses. Its effectiveness depends on its fit with

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institutional and organizational attributes.\textsuperscript{69} As China’s transition process has led to increased institutional uncertainty, firms turn closer to guanxi networks to lower their external dependence on key resources and to simultaneously lower their bureaucratic costs that would arise from internalizing operations. As a very loosely structured network, guanxi is an efficient means to facilitate economic exchanges. This guanxi-based “network capitalism”, however, is different to business networks that prevail in CMEs: Guanxi stretches out to a multitude of (often small-scale) actors and does not tend to expand into large bureaucratic structures that would come about in CMEs. To overcome disadvantages from small size, Chinese businesses band together into clusters which are linked through flexible horizontal networks. The guanxi structure is also quite open to new members, as opposed to company networks, e.g., in Germany. In western countries, a relationship between business partners usually arises after the transaction whereas in China transactions often follow successful guanxi. A major concern of Chinese organizations is to engage in extensive networking activities through guanxi to build trust and exchange favors.\textsuperscript{70}

Overall, the findings reflect potential synergy gains in guanxi from resource complementarity and lower transaction costs. In China’s transition economy with ambiguous property rights and a weak competition policies, guanxi provides an opportunity to increase market share through improved competitive positioning by collaborating with competitors and government authorities.\textsuperscript{71} Firms thus establish guanxi networks to overcome strategic and institutional weaknesses by linking up with those agents that they are only remotely related with but that have strong control over key resources.\textsuperscript{72}

In conclusion, China exhibits a distinct prevalence of guanxi-networks in the private sector. Capitalist development in China is therefore characterized by a duality: On the one hand, a large state sector operates in key industries and services and stands under the control of the central government’s industrial policies. On the other hand, this state sector coexists and melds with a private sector that is structured by guanxi-networks. The informal institution “guanxi” deeply influences and structures economic activity in China. Though substantially different from Western business networks, guanxi leads to a high degree of coordination within the economy. This piece of evidence suggests placing China in a CME context rather than in a LME context.

\textsuperscript{71} Increasing market share through guanxi networks is costly due to the in-built reciprocity. Studies in this context have shown that increased market share does usually not translate into higher net profit.
Research & development, technology transfer and innovation

At the outset of reform in 1978, China had organized and planned its R&D at the national level through the State Science and Technology Commission and related central government bodies. Research (including all creative or innovative activity) was conducted by research institutes. Under central planning, factories had neither a mandate nor any incentive to engage in innovation and change. Similarly, research institutes did not undertake any production activities.73 Since 1978, profound changes in the organizational boundaries of the Chinese innovation system have taken place. For purposes of our ‘Varieties of Capitalism’ research focus it shall suffice here to limit our attention to the set-up of China’s contemporary innovation system structure. Today, organizations have diversified into various functional activities and the former dichotomy between R&D and manufacturing no longer persists. Moreover, new actors have entered the market, with multi-national corporations (MNCs) taking an important position. Today research institutes are much more responsive to down-stream problems of e.g. manufacturers and end-users as the government has continually cut their operating budgets. They now compete for resources – market coordination prevails. On the other hand, the government has increased its funding of basic research, allocating money to develop scientific bases and technical infrastructure particularly in IT and biotechnology. Another major shift addresses the question where R&D is carried out and by whom. Today, more and more R&D activities are co-located with implementation and manufacturing, but plain R&D activities in universities and research institutes have increased even more significantly. Manufacturing firms have substantially increased their funding of R&D by outside research institutes, since managers perceive that buying or contracting for research services from outside is more cost-effective. At the enterprise level, R&D is primarily involved in process scale-up and other activities that are more related to implementation rather than to creation of new technology. The underlying rationale why firms in China have not become centers of innovation has been analyzed in empirical studies. Major reasons are e.g. a lack of qualified technical personnel and of access to relevant markets and technological information as well as unclear property rights.74 Another major change in China’s innovation system was brought about by the entrance of MNCs and

74 Cp. ibid., p. 1102.
their R&D centers. FDI has often led to extensive technology import, which then has been responsible for upgrading many of China’s key industries.\textsuperscript{75} However, the impact of foreign technology might have benefited China even more, if the country’s coordination processes had been different: China focused more on codified technology (e.g. software, drawings, production lines) and not on intangible assets, such as intensive interaction and collaboration with foreign firms in research and problem-solving. Tacit knowledge has therefore been hardly transferred in China.\textsuperscript{76}

This overview shows that economic reform during the past 25 years has substantially altered the structure and dynamics of China’s innovation system to more efficiency. However, also the innovation system in China must still be regarded as a transitional institution, since a number of important issues remain open: government influence remains and often leads to inadequate incentives affecting innovative behavior. Most importantly however, the inadequate legal environment with weak and ambiguous property rights cannot yet provide a reliable environment for inter-firm and inter-organizational relationships which is crucial in the innovation process.\textsuperscript{77} Liu and White (2001) state that there is even a relative decline in the tendency of organizations to cooperate in later stages of the innovation process. Exhibit 7 shows the development of joint patents in China and illustrates the described trend. In summary this shows that “organizations are cooperating more in the upstream stages of the technological development process, but cooperating less in the downstream stages as the commercial potential becomes clearer.”\textsuperscript{78} In a ‘Varieties of Capitalism’ context the current stage of development of China’s innovation system can therefore not be clearly classified either. Competition for resources and increasing market coordination point towards a LME approach. However, R&D still remains primarily within research institutes and not production companies. Many of these are influenced by the government, as the increased funding of basic research indicates. R&D in a ‘Varieties of Capitalism’ context therefore remains ambiguous.

\textsuperscript{75} Cp. YAN (2005), pp. 35 – 38.
\textsuperscript{78} LIU/ WHITE (2001), p. 1109.
3.4 Intra-firm relations

The formal set-up of Chinese corporations and their decision making bodies including their (often not very efficient) system of checks and balances has already been excessively discussed in the chapter on corporate governance. This section now turns to another decisive factor that shapes intra-firm relations: corporate culture and management and leadership style in Chinese companies. With its unique cultural heritage, Chinese management and organization is deeply influenced by a collective orientation. The prevailing cultural values bring about a largely paternalistic approach to management, acceptance of hierarchy and the importance of relationships. Chinese management culture stresses human relationships and personal connections and trust as it is the case in inter-firm relationships. Chinese entrepreneurs usually follow a management model that is not common in the West: “Chinese management culture starts with the family as a building block of society, whereas Western management culture typically starts with the individual and then moves to the group.” This approach is rooted in the underlying social fabric of Chinese culture: Confucianism. This philosophy serves to maintain sensitivity to hierarchy and social order via micro units of society, such as families. This has several implications for the management style found in Chinese enterprises. Chinese management philosophy centers on people, hence virtues such as humanity and benevolence, righteousness, propriety, wisdom and trustworthiness define inter-personal relationships. These values are strongly related to the concept of non-specific behavior: a Chinese manager/leader will not set out clearly-cut, specific demands, but rather pursue general guidelines and goals that allow the employees to often have considerable freedom for task accomplishment. These principles are similar to concepts of empowerment in Western cultures. Another important building block for inter-personal relationships is an individual’s capacity for compromise and maintaining a harmonious relationship with others.

The described system is very different from what one observes in liberal market economies in the Anglo-American world. One major variation is the collectivist orientation of the Chinese culture opposed to a very individualist system pertinent in the UK or the US. Exhibit 8 gives provides a deeper insight into the contrasting value systems of the Anglo-American and Chinese

79 Cp. chapter 3.3.1 on Chinese business networks highlighting the concept of guanxi.
cultures. Chinese management continues to be heavily influenced by cultural tradition: the paternalistic style of leadership remains the dominant mode of leadership in Chinese business and large power distance are a defining feature. This translates into centralized authority, hierarchical structures, as well as informal coordination and control mechanisms.\textsuperscript{84} Especially SOEs exhibit highly formalized and bureaucratic structures. They are also characterized by low employee empowerment and decisions tend to be taken rather top-down. In contemporary China, management and decision making styles vary largely across the different ownership types and are thus certainly evolving into more diversified approaches. The described underlying “social fabric” however remains active in all types. Within the ‘Varieties of Capitalism’ context, hierarchies, collectivism, and an importance of relationships are indicators for a CME environment.

Traditional Chinese management stresses a control-oriented approach that features a hierarchy of special managerial roles, reinforced by a top-down allocation of authority in order to monitor and control workers and their efforts. This approach has often resulted in poor execution of firm strategies, low innovation and quality improvements due to a disaffected workforce. Many modern Chinese organizations have however broken with that traditional concept and apply modern employee involvement and TQM schemes. With its relatively cooperative/collectivist society China would be well placed to introduce more employee involvement and some companies are already doing so. That way the growth of organizational knowledge could be enhanced and companies could strengthen their competitive position by better leveraging their human assets. However, as for today the discretionary power of managers has not been constrained significantly and they continue to take decisions based on their hierarchical level. As outlined in the discussion on the labor market, job tenure is elevated due to restricted labor mobility. This fact together with the care an employee receives by its “firm-community”, indicates that Chinese intra-firm relations adhere more towards a CME rather than to a LME approach.

\textbf{3.5 Education and vocational training}

The Chinese education system’s ability to produce graduates with those skills that are required by employers has been a wide concern. Overall, the Chinese education system stresses

certification in general skills rather than the acquisition of highly specialized industry- or even firm-specific competencies. The education system in China today finds itself between conflicting skill demands of the different types of enterprises that the transition era has brought about: traditional SOEs continue to focus rather on hard technical skills whereas new private Chinese enterprises as well as foreign and joint venture companies stress the importance of soft skills. Many SOEs are still looking for managers or technicians to work within relatively narrow concepts of management and tend to focus on task-oriented skills. They hence rate formal qualifications high, especially in science and mathematics related fields.\(^85\) The Chinese education system has been catering well to this demand, since it highly values formal education in the sciences itself. Foreign companies and other newly founded private enterprises however increasingly seek graduates that are equipped with important soft skills (such as communication and problem solving skills, leadership and management skills etc.). Here the Chinese education system so far has shown a rather poor performance as curricula have not been significantly adapted. The system continues to cater rather well to the demands of SOEs since it had been geared towards exactly the needs of these traditional enterprises for the last decades. Foreign enterprises therefore use the education system mainly as an important selection mechanism in their HR strategy: they select candidates they estimate most promising and then further train their new recruits with tailor-made development and training programs.\(^86\) They are usually equipped with the necessary resources that allow them to pursue this strategy. This does usually however not hold for local private enterprises that can therefore be seen to be worst off by the current arrangement. The system however is changing today and management education is becoming more wide-spread.

In conclusion it must be said, that the Chinese education system is geared towards the provision of formal (especially scientific) education and that links to the industry remain weak. There is no ‘dual-system’ as it exists in Germany that would provide for industry-specific skills. This situation indicates that China is following – at least for the time being – rather the liberal path within the ‘Varieties of Capitalism’ framework by Hall and Soskice in the domain of formal education.


The significant changes in China’s advancing economy have also had a major impact on the Chinese vocational education and training (VET) system. The rapid growth and the increasing need for improved competitiveness have put pressure on the VET system to create a skilled workforce. New patterns of employment, such as jobs provided by foreign companies and the opportunity for self-employment have influenced the aspirations of young people towards VET. Also in order to reach sustained economic development, China needs to invest in its human capital stock. Similar to most countries in the world, formal education and vocational training are two separate systems that lead to two different career prospects. Vocational training is provided from two standard sources: VET institutions and employing organizations (state-owned, collectively-owned, and private firms). Training programs in vocational schools or technical colleges usually take two to three years and focus on technical/vocational competency training and usually have only little theoretical elements in their curricula. There exist three types of institutions: the first is technical colleges that are directly controlled by regional/local authorities. Secondly, there are technical schools established by the large SOEs and industrial departments that are accountable to the Ministry of Labor. These schools mainly focus on teaching technical skills for manufacturers. Thirdly, there are institutions that were turned into vocational schools during the reform program of the secondary school system in the 1980s. It was usually poor performers (relatively speaking) that were transformed into vocational schools, since students from these schools had only little chance to proceed to university. Through the new system, these students should be given general occupational skills preparing them for jobs in the light manufacturing or services sectors, such as tailoring, equipment maintenance and cooking. Under the command economy, VET was centrally organized and catered to the needs of the large SOEs. During the second stage of China’s economic reform however, this control was loosened and a broad variety of private training institutions emerged with a peak in 1995. Since then a process of consolidation has taken place.

Enterprise training is the other important source of skill training in China. The ‘Reform and Development Plan for Education in China’, issued by the State Council in 1993, stresses that continuous education and training on-the-job shall be the main methods for adult education in the country. The Labor Law of China (1995) specifies further that “an employer shall establish a job training system, set aside funds for job training and use them according to the regulations of

the State, so as to be able to train its employees systematically in the light of the circumstances.”

1996 vocational training had for the first time been given a separate piece of legislation: the ‘Vocational Education Law of China’. It specifies the government’s responsibility to implement vocational training schemes nation-wide. However also in this domain, law enforcement is an issue and China lacks behind its ambitious plans in many regions that give VET only low priority. Despite the fact that there are no detailed statistics to reflect a true and fair view of China’s current VET situation, different studies do however provide insights into the generate state: Cooke (2005) summarizes the situation and provides data that proves that VET has not yet been widely established (see appendix 11 for precise figures). This shows, that VET is still in its infancy in China and the country is increasingly looking abroad to identify possible training schemes that could fit its own needs. For example the National Vocational Qualifications (NVQs) and General Vocational Qualifications (GNVQs) system in the UK were considered as viable options. However, the “dual system” of Germany was acknowledged to be the best model and some large cities have set up VET centers to experiment with the model. Already in the early 1980s 32 Sino-German training centers had been established in the country. So far, the German dual system has however proved to be too expensive and also the single-discipline nature of trainers/teachers has made it difficult to implement the system. From this the conclusion follows that VET is still a transitional institution in its infancy. Currently, most training schemes offer general skills training, as do their counterparts in the UK or US. This fact suggests that China is about to adopt a LME approach. From the desire to implement the German dual system one can however conclude that China has acknowledged the advantages such a system would have in its institutional context and is eager to implement it. This suggests that China is thriving to follow a CME approach, however so far lacks the resources to do so in a VET context.

### 3.6 Institutional complementarities in China’s economic system

The ‘Varieties of Capitalism’ approach postulates that only a pure CME or LME configuration is stable, efficient, and successful in the long-run. Other cases falling in between are supposed to be

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89 These are common qualification certificates in the UK. GNVQ is a suite of general vocational qualifications, providing an introduction to a broad vocational area. NVQs are work-related, competence-based qualifications that reflect the skills and knowledge needed to do a job effectively. Cp. www.qca.org.uk.
subject to lower growth and more inefficiency. The ‘Varieties of Capitalism’ analysis of the Chinese case however generates roughly the following picture:

China clearly exhibits an ambiguous case that neither adheres fully to one or the other ‘Varieties of Capitalism’ regime. It seems though that there is a strong tendency towards a CME configuration. However, one major institutional element cannot be categorized, namely the financial system: high ownership concentration and Anglo-American regulatory structures on the one hand and a German-style board of supervisors, a focus on relationships, and a high degree of insiders on the other hand. Industrial relations as well as inter-firm and intra-firm relations point more to a CME model with clientelist relationships in the labor market, influential unions, the importance of “guanxi”, government involvement and a collectivist culture. The education and training sector on the other hand focuses on general skills and can be described as rather liberal. According to the ‘Varieties of Capitalism’ framework, the Chinese institutional configuration should not be successful and also not sustainable in the future. The past 25 years of impressive economic growth however speak a very different language and also the current upward trend of the economy opposes this ‘Varieties of Capitalism’ implication.\textsuperscript{91} It must therefore be concluded that the static ‘Varieties of Capitalism’ approach falls short when applied within a transition context. It cannot fully explain the dynamics of an economic transition. The following chapter will therefore outline major shortcomings of the ‘Varieties of Capitalism’ approach within a transition context.

The sustainable success of China’s gradual reform indicates that the dynamic configuration of transitional institutions is nevertheless relatively efficient. However, this does not imply that the current institutional configuration is stable. Possibly, it will vanish at a later stage and transform into a different one as the economy matures. The notion of complementarity within the Chinese system can be outlined drawing on several examples:

Given the mentioned problems in the legal domain, the financial system has produced striking characteristics: The quota system applied to the stock-market has raised transparency and disclosure levels significantly. A positive-selection of qualitative companies was induced which led to a performing stock-market. The quota system has thus raised the efficiency of the stock market – hence, both institutions seem complementary. Weak competition policies and ambiguous property rights – another set of institutions that exhibits major deficiencies if analyzed from an “advanced capitalism” perspective – are met by a sophisticated “social software”: guanxi. By collaborating in densely knit networks, e.g., with competitors and government authorities, a firm improves its competitive positioning and that way overcomes institutional weaknesses. The fact that R&D is carried out by research organizations or by individual companies that might cooperate with a small number of research institutes and hence do not create combined inter-firm and inter-industry research networks is in line with the ‘Varieties of Capitalism’ assumptions, given the focus on general knowledge as compared to industry-specific skills in the education and vocational training sector. Non-market coordination in industrial relations gives rise to non market coordination in both inter-firm and intra-firm relations. China has found very non-standard institutions to support its growth. The degree of complementarity can be seen as high though and serves as a reference point to explain the county’s economic success.

4 Limits of the Varieties of Capitalism approach in analyzing China

The focus on the firm as the center of analysis in the ‘Varieties of Capitalism’ concept implies that the state as a unitary actor in the economic system does not qualify as an explanatory variable as to how institutions emerge and change. Hall and Soskice (2001) explain that the ‘Varieties of Capitalism’ approach is actor-centered, which is to say that the political economy is

understood as a “terrain populated by multiple actors, each of whom seeks to advance his interests in a rational way in strategic interaction with others.” Hall and Soskice further explain that it is companies that are the “key agents of adjustment in the face of technological change or international competition whose activities aggregate into overall levels of economic performance.” Here the ‘Varieties of Capitalism’ theory takes a democratic polity as a given – as it is the case in all market economies in the developed world with their multi-party political systems and history of coalition politics. Economic policy is explained as the outcome of a bargaining process among different actors that may be individuals, firms, producer groups, or governments; institutions then emerge and change as the product of compromise between those socio-political groups. The ‘Varieties of Capitalism’ model claims that there are two static equilibriums (either LME or CME). It hence fails to capture the political dynamics of the Chinese situation. As the discussion in the preceding chapters has shown, Chinese firms today still lack the high degree of autonomy assumed by the ‘Varieties of Capitalism’ approach and do therefore not play the central role in economic policy making. The ‘Varieties of Capitalism’ analyses underestimate the importance of political factors, in particular the influential role of the CCP, in China’s economic transition and reform process. Individual politicians have also played an important role in shaping the set-up of the economy. In 1978 it was for example Deng Xiaoping who had emerged as the paramount leader and who successfully initiated the reform process by bringing reluctant and skeptical party bureaucrats in line. Also the strong leadership ability of China’s premier Zhu Rongji two decades later can serve as such an example when he pushed through China’s WTO accession despite severe political opposition within the country. Post-Washington-consensus institutional economics literature on post-socialist transitions has pointed to the importance of the state in the transition process. Russia’s failure to successfully transform its economy is today widely attributed to a lack of state capacity. In contrast, China is typically considered an example of effective (at least in comparative terms to other transition economies) state governance. The CCP admits that it did not have a master plan for reform. China has chosen a gradual and incremental reform towards to the market economy during which the CCP had continued to exercise guidance over the direction of the reforms. The Chinese

government did not adopt a laissez-faire approach to the establishment of complimentary institutions to support market operations. The ‘Varieties of Capitalism’ analysis does nevertheless offer valuable insights that justify its application to China’s transition economy. Despite its orientation towards mature capitalist economies, the Chinese case also confirms the validity of the concept of institutional complementarities as an integral component of efficient market operations. This assessment, however, does not explain why China, a Confucian culture, would opt for either a LME or CME style capitalism. China challenges the conviction of the ‘Varieties of Capitalism’ approach and economic theory in general as it shows that economic behavior is embedded in a specific social, cultural, and historical context.  

The emphasis of the ‘Varieties of Capitalism’ theory on economic factors as primary determinants in policy decisions and institution building does however not capture the complexity of the Chinese political environment. The CCP’s reform strategy has been shaped by the interaction of economic and political factors, including external demands imposed from abroad.

The Chinese case has shown that economic reform and transformation would be ineffective if the appropriate institutional foundation was absent. There is an emerging consensus in economics that effective governance and institutional change are key factors for economic performance. Not a minimal state, but a state that is capable of formulating, implementing, and enforcing reforms takes on a crucial role in the transition process. The role of the state in Chinese – or more broadly in East Asian – development has been discussed widely in the literature and the 1990s saw two divergent theories competing with each other: the market-friendly view and the developmental-state view. 

The first view expresses “that the state should confine its economic activity only to fostering market coordination, while the developmental-state view asserts that the state can be an important substitute […] for market coordination which often fails at the developmental stage of the economy.” Hence, either the market or the state solves resource allocation problems and market failures. However, as the ‘Varieties of Capitalism’ discussion in the preceding chapters has shown that coordination problems are of a broader and more general dimension than what the simple notion of market failure indicates: in resolving coordination problems, many different institutions other than markets evolve, such as the set-up of the financial system, industrial institutions.

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100 AOKI/KIM/OKUNO-FUJIWARA (2005).
relations or vocational training to name only a few. The main role of the Chinese state has not been in directly intervening in resource allocation (bar certain examples) but rather in developing those institutions and interacting with them itself. The government itself is an agent that is constrained in its own capacity to process information and has its own interests. It can therefore not be seen as a neutral body that steps in to correct private coordination failures but must be seen as an endogenous agent itself. Here the firm-centered view of the ‘Varieties of Capitalism’ concept falls short. Aoki emphasizes a third view that shall be taken as the framework of analysis here: the market-enhancing view. Here, the government and the market are not regarded as two mutually exclusive substitutes, the role of the government policy is examined to facilitate or complement private-sector coordination.\(^{101}\) One premise inherent to this view is that private-sector institutions are seen to have important comparative advantages vis-à-vis the government, in particular in their ability to provide appropriate incentives and to process locally available information. However, it is acknowledged that the capabilities of the private sector are more limited in a developing economy like China.\(^{102}\) “The market-enhancing view thus stresses the mechanisms whereby government policy is directed at improving the ability of the private sector to solve coordination problems and overcome other market imperfections.”\(^{103}\) From this perspective it is thus not the government’s responsibility to solve a specific coordination problem but rather to facilitate the development of private-sector institutions. Over time the locus of coordination dynamically moves further to the private sector as it acquires more and more capabilities. A study on China’s institutional reform process must take this aspect into account and therefore focus on governance structures and their ability to foster private-sector coordination. China has managed to gradually create such a market-enhancing governance structure (MEGS) – this dimension must therefore be incorporated into the discussion of China’s transition process. Governance is defined as “the capacity of a country’s institutional matrix (in which individual actors, firms, social groups, civic organizations, and policy makers interact with each other) to implement and enforce market-oriented public policies and institutions, and to improve private sector coordination.”\(^{104}\) The state as a facilitator of private sector coordination does not exist within the narrow scope of the ‘Varieties of Capitalism’ framework. At the end of

\(^{102}\) Cp. ASIAN DEVELOPMENT BANK (2003).
\(^{103}\) AOKI/MURDOCK/OKUNO-FUJIWARA (2005), p. 2.
\(^{104}\) Cp. AHRENS/MENGERINGHAUS (2005), p. 3.
the transition process, coordination will surely also be anchored within the private realm as it is the case in advanced economies already today. The ‘Varities of Capitalism’ approach does however not account for this dynamic change in coordination patterns but presumes a stable state to already exist at the outset of the analysis. This is a major shortcoming of the approach and makes its validity questionable within a transition context. The state has thus played an important role in China’s economic transition and must be included in any analysis.

5 **China on the way towards a ‘hybrid capitalism’**

China’s systemic transformation differs in many important ways from the experience in CEE and the CIS. Especially their starting conditions were very dissimilar: China was characterized by its large and mainly poor agricultural sector, whereas transition economies especially in the CEE were already industry based. Although being a centralized state, China’s more decentralized planning system had been in place early on, as the turmoil of the Cultural Revolution had damaged the reputation of central planning and substantially weakened the government bureaucracy and its vested interests. A striking insight from China’s transition is that system change from a planned to a market system occurred without a political revolution. If China hence completes its transition, it will be the first country under a communist leadership to do so. China’s strategy of experimentation has shown that there is more than one path towards successful transition. The main lesson from the Chinese case however is that considerable growth is possible with “sensible but not perfect institutions”, and that transitional institutions can be more effective and efficient than “best practice blueprint institutions” imported from other countries for a certain period of time due to the second-best principle: removing one distortion may be counterproductive in the presence of another distortion. For example, when CEE countries and the former Soviet Union embarked on their transition to a market economy, they chose the Anglo-American system as the model to follow without considering the actual consequences it might incur. The implementation of e.g. privatizing SOEs in these countries did not produce a corporate governance structure characterized by outside stockholder control as it was desired by policy makers that imported ‘Washington Consensus’ management practices.

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106 Cp. QIAN (1999), p. 44.
Instead, it resulted in wide-spread insider control patterns and a large share of stocks was acquired by managers. It was the historical conditions at the outset of the reform that constrained the possible outcomes of the enterprise privatization process.\textsuperscript{109}

This research paper has shown that China has embarked on a gradual and highly incremental transition path. China has developed basic market-supporting institutions such as the rule of law but is still lacking the people to operate and enforce them. Given this constraint, best practice institutions that require high skill levels and a variety of supporting institutions will most certainly not work for the time being. This implies that some existing institutions can contribute positively to market-oriented reform even though they will most likely eventually disappear. Fiscal contracting, anonymous banking, TVEs all constitute Chinese institutional innovations that have worked very well for a certain period of time in the Chinese context. Of course, there is still significant potential for improvement due to many allocative distortions.

There are several general principles that can be derived from China’s transition experience: Firstly, government reform is a key component for economic reform, since if the government has strong positive incentives and faces hard budget constraints and competition, the resulting reform is productive. Moreover, the Chinese experience has shown that a reform program must be politically feasible, i.e. supported by the majority of people in order to be successful: a reform that does not create many losers in the first place will be accepted ex ante and will also be sustainable ex post. Furthermore, the issue of how to sequence different reform steps needs to be highlighted: the Chinese experience has shown that whenever it is politically feasible, “it is better to dismantle the existing institutions after the new ones are put in place, or allow the new ones emerge from the old, to avoid institutional vacuum”.\textsuperscript{110} One such example is the slow phasing out of the plan track while simultaneously allowing for private businesses to emerge – this strategy has minimized oppositional forces and improved economic efficiency at the same time. Of course, China could have done even better by choosing an even better reform measures, but what is crucial to see is that it was most important to avoid fatal mistakes.

A convergence of different ‘Varieties of Capitalism’ that exist worldwide – especially to the Walrasian model – would be difficult “because of the variance in historical conditions among

\textsuperscript{110} QIAN (1999), p. 47.
economies and the need for structural consistency between regulations and other institutions.\textsuperscript{111} The ‘Varieties of Capitalism’ approach has claimed that different capitalist systems will either converge to a LME-equilibrium or to that of a CME. Economies that fall in between these categories are said to be inefficient. The preceding discussion has shown that the Chinese transition paints a somewhat ambiguous picture, but still appears to be relatively efficient as it exhibits seemingly complementary institutional configurations that are suitable for the time being. The dynamics of the Chinese situation are not sufficiently reflected by the theory. Comparative institutional economics proposes that there is diversity in economic systems on a global scale.\textsuperscript{112} This study takes up this line of thought and suggests that the emerging capitalism in China is neither that of an LME or a CME in the sense of a pure ‘Varieties of Capitalism’ theory, but is of a hybrid form. Maybe the widespread tag “Capitalism with Chinese Characteristics” can actually serve as a term to label the emerging form of capitalism in China. For the time being, there is one important element in China’s socialist market economy that appears to be difficult to change: the Party and government bureaucracy that limit the extent to which free enterprises can flourish in China.\textsuperscript{113} This situation as is not expected to change, as long as the economy stays on its growth track, since this situation serves as the main source of credibility for the central government. The government is rather popular among a large number of Chinese citizens. The bureaucratic behavior in China is therefore likely to remain and affect the way non-state enterprises can function. This dualism of the economic and the political realm will remain one of the characteristic features of China’s variety of capitalism.\textsuperscript{114}

\textsuperscript{114} Cp. Lin (1993), pp. 197 et sqq.
Exhibit 1: A Comparison of the NPLs and Government Debt (%)\textsuperscript{115}

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>US</th>
<th>Japan</th>
<th>South Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>--</td>
<td>65.6</td>
<td>80.0</td>
<td>6.5</td>
</tr>
<tr>
<td>1998</td>
<td>12.3 (14.4)</td>
<td>63.4</td>
<td>96.2</td>
<td>10.5</td>
</tr>
<tr>
<td>1999</td>
<td>23.7 (34.3)</td>
<td>61.4</td>
<td>107.3</td>
<td>20.0</td>
</tr>
<tr>
<td>2000</td>
<td>40.4 (65.4)</td>
<td>58.3</td>
<td>115.9</td>
<td>16.7</td>
</tr>
<tr>
<td>2001</td>
<td>39.2 (62.1)</td>
<td>58.4</td>
<td>136.5</td>
<td>12.7</td>
</tr>
<tr>
<td>2002</td>
<td>33.8 (49.1)</td>
<td>60.5</td>
<td>--</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Exhibit 2 compares the ratio of (NPLs + Outstanding Government Debt)/GDP, in percentage, among China, Japan, the US, and South Korea for the time period 1997-2002, where the NPLs are the outstanding non-performing loans in a country’s banking system, and outstanding government debt is the figure at the end of each year. The figure in brackets for China is the value of the official number for NPLs doubled. The lower the ratio, which results from low NPLs, low government deficits, or both, the less severe the problem of the NPLs becomes.

Exhibit 2: A Comparison of the Largest Stock Markets in the World\textsuperscript{116}

<table>
<thead>
<tr>
<th>Rank</th>
<th>Stock market</th>
<th>Total Market Cap (USD billion)</th>
<th>Concentration (%)</th>
<th>Turnover Velocity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>NYSE</td>
<td>9015</td>
<td>61.3</td>
<td>94.8</td>
</tr>
<tr>
<td>2.</td>
<td>Tokyo</td>
<td>2095</td>
<td>60.6</td>
<td>67.9</td>
</tr>
<tr>
<td>3.</td>
<td>Nasdaq</td>
<td>1994</td>
<td>63.1</td>
<td>159.8</td>
</tr>
<tr>
<td>4.</td>
<td>London</td>
<td>1800</td>
<td>84.5</td>
<td>97.3</td>
</tr>
<tr>
<td>5.</td>
<td>Euronext</td>
<td>1538</td>
<td>72.3</td>
<td>153.6</td>
</tr>
<tr>
<td>6.</td>
<td>Deutsche Börse</td>
<td>686</td>
<td>72.0</td>
<td>125.1</td>
</tr>
<tr>
<td>7.</td>
<td>Toronto</td>
<td>570</td>
<td>67.8</td>
<td>67.9</td>
</tr>
<tr>
<td>8.</td>
<td>Swiss</td>
<td>547</td>
<td>81.2</td>
<td>138.6</td>
</tr>
<tr>
<td>9.</td>
<td>Italian</td>
<td>477</td>
<td>66.1</td>
<td>120.7</td>
</tr>
<tr>
<td>10.</td>
<td>China (Hong Kong)</td>
<td>463</td>
<td>83.0</td>
<td>39.7</td>
</tr>
<tr>
<td>11.</td>
<td>China (domestic)</td>
<td>463</td>
<td>29.4</td>
<td>224.2</td>
</tr>
</tbody>
</table>

\textsuperscript{115} ALLEN/ QIAN/ QIAN (2005a), p. 83.  
\textsuperscript{116} ALLEN/ QIAN/ QIAN (2005a), p. 85.
Exhibit 3: Financial reform, debt level and governance structures in China\textsuperscript{117}

\begin{itemize}
  \item[A] Pre-reform unified income and expenditure system
  \item[B] 1978 – 80: Enterprise autonomy was expanded
  \item[C] 1981 – 83: Experimentation with some forms of contract responsibility system
  \item[D] 1984 – 85: Introduction of li-gai-shui (tax substituting for profit remission)
  \item[E] 1987 – 91: Nationwide adoption of contract responsibility systems
  \item[F] 1986: Local experiments with shareholding systems
  \item[G] 1992 – present: Corporatisation of SOEs, shareholdings regulations, proclamation of the Company Law, national experiment setting up modern corporations
\end{itemize}

\textsuperscript{117} TAM (1999), p. 42.
Exhibit 4: Sources of financing in China by type

Sources of financing in China by type, %


Bank loans
Bonds
Stocks
FDI

Capital markets

1 Figures do not sum to 100%, because of rounding
2 estimated
3 Includes financing from both domestic and foreign sources

Forecast USD billion

160 189 231 259 251 292 295 324 421 463 510

Exhibit 5: Breakdown on the NPL development of China’s “Big-4” banks

NPL development of China’s “Big-4” banks

1 Figures do not sum to 100%, because of rounding
2 estimated
3 Includes financing from both domestic and foreign sources

Exhibit 6: Misallocation of capital\textsuperscript{120}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{exhibit6.png}
\end{figure}

\end{tabular}

\begin{itemize}
\item State-owned enterprises:
\begin{itemize}
\item 100\% = 7.1 million
\item 17\% of enterprises
\item 17\% Contribution to GDP\footnote{Industrial output used as a proxy for state-owned enterprises; industry value added used as proxy for local private small/medium enterprises.}
\item 25\% Share of loans\footnote{Financial liabilities used as proxy for bank loans in order to determine state-owned enterprises’ share.}
\end{itemize}
\item Quasi-private enterprises\footnote{Includes companies with foreign investment and large local private enterprises.}:
\begin{itemize}
\item 52\% of enterprises
\item 45\% Contribution to GDP
\item 65\% Share of loans
\end{itemize}
\item Local private SMEs:
\begin{itemize}
\item 31\% of enterprises
\item 30\% Contribution to GDP
\item 20\% Share of loans
\end{itemize}
\end{itemize}

\textsuperscript{120} PITSILIS/ WOETZEL/ WONG (2004), p. 12.
Exhibit 7: Total and joint patenting activity in China\textsuperscript{121}

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total patents</strong></td>
<td>7.836</td>
<td>12.902</td>
<td>7.576</td>
<td>7.762</td>
<td>10.898</td>
<td>17.256</td>
</tr>
<tr>
<td><strong>Joint patents (% total)</strong></td>
<td>6.7</td>
<td>4.6</td>
<td>6.1</td>
<td>5.7</td>
<td>3.3</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Total university patents</strong></td>
<td>1.214</td>
<td>1.774</td>
<td>1.078</td>
<td>0.891</td>
<td>0.854</td>
<td>0.774</td>
</tr>
<tr>
<td><strong>Total R&amp;D institute patents</strong></td>
<td>1.705</td>
<td>2.558</td>
<td>1.514</td>
<td>1.485</td>
<td>1.387</td>
<td>1.472</td>
</tr>
<tr>
<td><strong>Total firm patents</strong></td>
<td>4.917</td>
<td>8.570</td>
<td>4.984</td>
<td>5.386</td>
<td>8.657</td>
<td>15.010</td>
</tr>
</tbody>
</table>

Exhibit 8: Contrasting Anglo-American and Chinese cultures\textsuperscript{122}

<table>
<thead>
<tr>
<th>Anglo-American culture</th>
<th>Chinese culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational</td>
<td>Intuitive</td>
</tr>
<tr>
<td>Inductive thinking</td>
<td>Holistic thinking</td>
</tr>
<tr>
<td>Scientific</td>
<td>Aesthetic</td>
</tr>
<tr>
<td>Individualistic</td>
<td>Collectivist (family oriented)</td>
</tr>
<tr>
<td>Low power distance</td>
<td>High power distance</td>
</tr>
<tr>
<td>Seek to reduce uncertainty</td>
<td>Accept or tolerate uncertainty</td>
</tr>
<tr>
<td>Explicit communications</td>
<td>Implicit communications</td>
</tr>
<tr>
<td>Function-oriented expression</td>
<td>Relationship-oriented expression</td>
</tr>
<tr>
<td>Systematic trust</td>
<td>Personal trust</td>
</tr>
<tr>
<td>Diversified information networks</td>
<td>Top-down information system</td>
</tr>
</tbody>
</table>

\textsuperscript{121} LIN/ WHITE (2001), p. 1101.  
### Exhibit 9: Educational attainment of the population aged 6 and over in China

<table>
<thead>
<tr>
<th>Education level</th>
<th>Subtotal</th>
<th>% of population aged 6+</th>
</tr>
</thead>
<tbody>
<tr>
<td>No schooling</td>
<td>89,629,436</td>
<td>7.75</td>
</tr>
<tr>
<td>Eliminate illiteracy class</td>
<td>20,767,295</td>
<td>1.80</td>
</tr>
<tr>
<td>Primary school</td>
<td>441,613,351</td>
<td>38.18</td>
</tr>
<tr>
<td>Junior secondary school</td>
<td>442,386,607</td>
<td>36.52</td>
</tr>
<tr>
<td>Senior secondary school</td>
<td>99,073,845</td>
<td>8.57</td>
</tr>
<tr>
<td>Technical college</td>
<td>39,209,614</td>
<td>3.39</td>
</tr>
<tr>
<td>Polytechnic college</td>
<td>28,985,486</td>
<td>2.51</td>
</tr>
<tr>
<td>University</td>
<td>14,150,726</td>
<td>1.22</td>
</tr>
<tr>
<td>Graduate student</td>
<td>883,933</td>
<td>0.08</td>
</tr>
<tr>
<td><strong>Total population aged 6 &amp; over</strong></td>
<td><strong>1,156,700,293</strong></td>
<td><strong>--</strong></td>
</tr>
</tbody>
</table>

Original source:

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123 MENG (2004).
Bibliography


KITSCH, Herbert et al. (eds.) (1999): Continuity and Change in Contemporary Capitalism, Cambridge, United Kingdom.


YAN, Yanni (2005): Foreign Investment and Corporate Governance in China, Hampshire, United Kingdom.