Building China’s Financial System in the 21st Century*

Franklin Allen
Nippon Life Professor of Finance and Economics
The Wharton School
University of Pennsylvania
Philadelphia, PA 19104
allenf@wharton.upenn.edu

Jun Qian†
Assistant Professor
Finance Department
Carroll School of Management
Boston College
Chestnut Hill, MA 02467
qianju@bc.edu

Meijun Qian
Ph.D. Candidate
Finance Department
Carroll School of Management
Boston College
Chestnut Hill, MA 02467
qianme@bc.edu

July 24, 2003

* For helpful comments, we thank Bill Wang, and Sijin Cheng, the Editor-in-Chief of HCR. The authors are responsible for all remaining errors.

† Corresponding author: Finance Department, Boston College, Chestnut Hill, MA 02467. Phone: 617-552-3145, fax: 617-552-0431, E-mail: qianju@bc.edu.
I. Introduction

Since 1979 when China first opened its door to the outside world, fundamental changes have taken place within the “Middle Kingdom.” Most notably, China has gone from a closed economy dominated by agriculture and a central planning system, to a fast-growing, market-oriented, open economy. Much can be said on this latest Asian miracle, in particular how China achieved its economic growth and transition. In this article we briefly examine the role of China’s financial system in supporting the growth of its economy, and explore the directions of future growth of the financial system, as well as the growth of the overall economy.

Insert Table 1 here.

Tables 1 illustrates China’s status as one of the most important countries in the world. As shown in the column on the left, its GNP ranked seventh in the world as of 1999 in terms of US$, while the average annual growth rate of 8.35% is much higher than any of the major developed economies. Given this growth rate and assuming other countries also grow at their respective current rates and using the nominal exchange rates, it will only take 14 years to surpass Germany, and 21 years to surpass Japan, and become the second largest economy in the world.

The left column of Table 1 uses nominal exchange rates to measure China’s GNP. However, this methodology significantly under-estimates China’s economic power. This is because China’s currency, the RMB, is not freely convertible into other currencies, and historically it has been significantly under-valued relative to major currencies like the US dollar and Japanese yen. An alternative method is to use the Purchasing Power Parity (PPP) formula, which compares the quantities of the same basket of consumption goods that can be purchased by a fixed amount of currencies in different countries. Under the PPP formula, China’s economy is already the second largest behind only the US, as shown in the column on the right in Table 1.
Moreover, with the same PPP formula and assuming that the US economy continues to grow at 3.63% per year, it will only take 15 more years before China overtakes the US to be the largest economy in the world.

The fundamental role of a financial system is to allocate resources and wealth among investors and firms to achieve the maximum social welfare. Ideally, if the financial markets within a financial system allow perfect risk sharing among economic agents (or, markets are “complete”), there exists an active market for corporate control to ensure effective corporate governance, and there is full transparency in the information transmission process so that investment of capital, inputs, and technology is allocated efficiently, then the financial system will function perfectly. However, in practice markets are incomplete, transaction costs exist and can be quite high, and there is often asymmetric information between insiders and outsiders concerning a firm’s investment or production projects. How does a successful financial system overcome these problems?

Conventional wisdom states that a US style market-based system is the best, as advanced and active financial markets are the best way to ensure good resource allocation. However, this argument ignores the fact that there are other countries that have distinctly different but successful financial systems. A very good example is Germany, whose financial system is characterized by a large, dominant banking system, and much smaller financial markets. Since both countries are prosperous and wealthy, these two distinctly different systems have by and large been supporting the growth of their respective economies.

China’s financial system is dominated by a large but inefficient banking sector, despite the fast growth of the stock markets, including stock exchanges in Shanghai, Shen Zhen, and Hong

---

1 The advantage of this policy is that exporting goods become cheaper when sold in foreign countries.
Kong. First, when comparing the size of a country’s equity markets and banks relative to that country’s GDP, we find that China’s stock markets are smaller than those in most countries, both in terms of market capitalization and the total value of equity traded in the market. In contrast, China’s banking system is much more important in terms of its size relative to its stock markets. Moreover, total funds raised by firms through selling and trading of stocks and bonds in the stock markets only accounts for a small fraction of total funds raised. By far the two most important sources of financing channels for firms are bank loans and self-fundraising. Second, China’s banking system is not efficient: its overhead cost to total assets is much higher than that of most of the emerging countries. This evidence suggests that the status quo of China’s financial system is actually more similar to that of Germany, rather than the US.

In contrast to conventional wisdom, Allen and Gale (2000) argue that both the US and German financial systems have advantages and disadvantages. In the rest of the article, we also compare financial system properties for these two systems and examine China’s financial system along the same lines, including risk sharing, information provision, susceptibility to financial crisis, corporate governance, and funding new and mature industries.² We find that there are many fundamental differences between China’s financial system and the US system, and simply adopting the US system is not optimal. Understanding the German system and reform of China’s banking system should be as important as developing US-style financial markets.

More importantly, given the characteristics of China’s financial system, it may be best for China to develop its existing financial system, instead of simply adopting a system based on one country or a group of developed countries.

² Also see Allen, Qian, and Qian (2003) for more details.
II. Risk Sharing Through Financial Markets and Institutions

The standard argument on risk sharing is that financial markets allow good risk sharing among agents so that more risk tolerant agents end up bearing greater risk than more risk-averse agents, and everyone is better off. Provided that markets are complete, there are no transaction costs and information is symmetric, cross-sectional risk sharing can allocate risk among agents efficiently. However, this is only one type of risk sharing, namely, risk sharing among economic agents who live and trade within the same generation.

Another type of risk-sharing, inter-temporal risk sharing or risk sharing among different generations of economic agents, is also important. Financial institutions, such as banks, live and function much longer than individual investors, and can take the long-run view and maximize the total benefits of all agents from different generations. For example, the banks can take deposits from agents and “store” them when payoffs on real and financial assets are high, and take out these deposits when payoffs are low, so that consumptions across different generations are smoothed, and this makes every risk-averse agent in the economy better off. Therefore, a financial system with an efficient banking system can dominate a system with financial markets because banks can better allocate risk and smooth consumption inter-temporally.

Combining the above analysis to the evidence on China’s banking system, we believe that it is important for China to reform and improve the efficiency of the banking system, in order to support the overall growth of the economy. This is of particular interest at the moment given that China’s stock markets are still in the early stage of growth, with incomplete markets, asymmetric information, and imperfect government regulations. China’s overall economic growth is fast but the growth is volatile, so risk sharing is not only important for a stable growth path, but also
important for social stability. In this environment, the banks’ role of providing intertemporal risk sharing is that much more desirable.

III. Information Provision

One of the most important functions of a financial system is the acquisition and use of information to facilitate an efficient allocation of resources. In market-based systems such as the US, the fact that a large number of firms are publicly listed and traded, along with extensive disclosure requirements and many financial analysts working for financial institutions, implies that there is a great deal of information disclosure. As a result, most of the new information is quickly reflected in stock prices. By contrast, in bank-based systems such as Germany and other continental European countries, the reverse is true so relatively little information (public and private) is available from financial markets.

Conventional wisdom is that better information improves allocative efficiency, thus the more information, the better. The implication for this result is that better accounting standards and related disclosure measures aimed at improving transparency improves welfare. This call for higher accounting standards and better information disclosure is receiving a lot of support at the moment in the US, after the Enron debacle and other accounting scandals. However, informational efficiency, which can be achieved in efficient financial markets, does not necessarily imply welfare efficiency. In some cases, in order to reveal information, prices for securities have to fluctuate with any changes in underlying information; but price fluctuations themselves are costly to the extent that they may impose risk of uninsured changes in wealth on investors. Therefore, improved information disclosure increases stock price volatility, which can lead to a welfare decrease, in particular in a financial system with active financial markets. People who are forced
to sell based on newly released information will bear unnecessary risk. In this regard, welfare can be improved by having opaqueness in the information disclosure process.

The trade-off between allocative efficiency and risk sharing is important for the structure of financial systems. The mere existence of more price data from stock markets in the US is not a critical point in favor of a market-oriented system over a bank-oriented system. In financial systems like Germany’s, few companies are publicly quoted and little information is revealed by those listed companies. The lack of information, which may be bad from the point of view of efficient decision-making in investment, may actually be a good thing from the point of view of risk sharing.

China is in the process of improving its accounting and related disclosure standards and in particular, for publicly listed and traded companies. This is important and should be done with due diligence, and lessons can be drawn from various countries’ experience. However, the status of China’s accounting profession and judicial system makes it difficult to improve the transparency of the markets in the near future. On the other hand, the importance of improving accounting standards should not understate the importance of building an efficient banking system, in particular, a banking system that provides funding and monitoring to firms. In fact, improving the efficiency of China’s banking system is as important, if not more so, as improving the transparency of the financial markets at the current time.

IV. Financial Crises

Financial crises often accompany the development of a financial system. Conventional wisdom says that financial crises are bad. Often they are very bad, as they disrupt production and lower social welfare as in the Great Depression in the US. Prior to the 20th Century, banking
crises, currency crises, and stock market crashes occurred frequently in Europe and the US. Among these crises banking panics, caused by the fact that banks do not have sufficient liquid assets to meet total withdrawal demands (anticipated and unanticipated), were often particularly disruptive. Over time one of the most important roles of central banks came to be to eliminate banking panics and ensure financial stability. To a large degree central banks in different countries have performed well in this regard.

However, a new breed of financial crises emerged after the collapse of the Bretton Woods system in early 1970s. Researchers find that about three quarters of the IMF’s member countries suffered some form of banking crises between 1980 and 1996. In many of these crises, banking panics in the traditional sense were avoided either by central bank intervention or by explicit or implicit government guarantees. But the advent of financial liberalization in many economies in the 1980s, in which free capital in- and out-flows and the entrance and competition from foreign investors and financial institutions follow in the home country, has led to financial crises.

Since China’s recent entrance into the WTO will undoubtedly lead to more internal and external pressure to make its currency convertible and to open its capital and product markets, it is important to understand the causes of financial crises resulting from financial liberalization. First note that financial liberalization-led crises not only occur in emerging markets, such as the 1997 Asian crisis and the 1994 Mexico crisis, they can also emerge in developed countries. Examples include the Scandinavian crisis in the early 1990s, the dramatic rises in real estate and stock prices that occurred in Japan (in the late 1980s and their subsequent collapse in the 1990s) and in the US (the technology bubble in much of the 1990s). A common precursor to all the crises considered was financial liberalization and significant credit expansion. These were followed by a sharp rise

\[3\] For example, the foundation of the Federal Reserve System in 1913 in the US was a result of a debate triggered by
in stock prices and/or real estate prices much higher than during normal times. At some point the bubble burst and asset markets collapsed. In many cases banks and other intermediaries were overexposed to the equity and real estate markets, and following the collapse of asset markets banking crises ensued. In emerging markets this is often then accompanied by an exchange rate crisis, as the government chooses between lowering interest rates to ease the banking crises and raising them to defend the home currency. Finally, a significant fall in output occurs and the economies enter recessions.

Financial economists have recently argued that financial crises can be caused by the existence of an agency problem. Many investors in real estate and stock markets obtain their investment funds from external sources. If the providers of the funds are unable to observe the characteristics of the investment, and because of limited liability on the investors, there is a classic risk-shifting problem. Risk shifting increases the return to risky assets (e.g., real estate or internet stocks) and causes investors to bid up asset prices above their fundamental values. A crucial determinant for asset prices is the amount of credit that is provided for speculative investment. Financial liberalization, by expanding the volume of credit, can interact with the agency problem and lead to a bubble in asset prices.

So far we have said that the conventional wisdom is that financial crises are disruptive for an economy so we should try to prevent them. However, sometimes financial crises could conceivably be welfare improving for an economy, as bank runs caused by business cycles can allow better risk sharing among economic agents and better allocation of resources. In the long run improved risk sharing will allow greater investment in risky assets with higher expected returns. With more investment in projects with higher expected returns, economic growth is

the severe banking crisis of 1907.
higher. In this case, central banks and other government policies that eliminate runs would actually lower social welfare. For example, in the late nineteenth century, the US experienced many crises but the economy’s long run growth rate was high at the same time.

V. Corporate Governance

Conventional wisdom, based on how firms in the US are managed, says that strong corporate governance helps to resolve the agency problem resulting from the separation of ownership and control in publicly owned and traded firms (e.g., Jensen and Meckling 1976), and thus improves firm’s performance and increases the overall allocative efficiency of the economy. The set of corporate governance mechanisms, including active markets for corporate control, effective Board of Directors and CEO compensation, and the use of debt in capital structure, ensure that managers of the firm act in shareholders’ interests. However, there are many problems with each of these mechanisms in practice to limit their effectiveness.

Looking outside the US, there seem to be many examples of companies, particularly in Asia, where the arguments linking standard corporate governance mechanisms to firm performance fail. In fact, none of the above mechanisms are particularly effective in Asian countries. Standard finance theories thus suggest that corporate governance in Asia is inferior to the US. But if this is true how can the East Asian Miracle have occurred? How were these countries so successful for so long with these ineffective corporate governance mechanisms? We argue that standard theories are too narrowly focused, and there are many alternative forms of corporate governance mechanisms that have been overlooked by researchers. For example, family-run firms may be a more effective ownership structure for firms than professionally managed firms for emerging economies. Empirical evidence suggests that family-owned firms with a very
high concentration of ownership is the norm in many Asian countries outside China and these firms have performed well. Second, competition in product and input markets can serve as a very effective mechanism. If the managers of a firm waste or consume large amounts of resources, the firm will be unable to compete and will go bankrupt eventually. Competition in particular international competition is a mechanism that can potentially work in all countries. It seems that it is particularly important in Asia where so many countries have based their success on export-led growth.

The finding on alternative corporate governance mechanisms in Asia is important for China. Allen, Qian, and Qian (2002) show that while China’s formal system of corporate governance is poor, there exist effective, alternative mechanisms, such as those based on reputation and relationships, to ensure that many firms, especially non-state, non-listed firms to grow and to earn profits for their owners and other stakeholders. We do not doubt the importance of developing formal legal rules and investor protections, but it is important not to ignore how these informal mechanisms have worked so well in an environment where virtually no formal mechanisms were available.

VI. Funding New Industries

Economic history has suggested that stock market-based economies, such as the UK in the 19th century and the US in the 20th century, have been more successful in developing new industries than intermediary-based economies such Germany and Japan. For example, railways were first developed in the UK in the 19th century and were financed largely through the London Stock Exchange. In the 20th century, the US has been the most successful country at developing
and financing new industries. On the other hand, Germany and Japan, two countries that are both intermediation-based, are very good at traditional or mature industries. Recent examples in this context would be automobiles in both countries and electronics in Japan.

Markets are associated with costly information acquisition by investors who then decide whether or not to invest. With banks the costly information acquisition is delegated to managers of the firms and loan officers of the banks. It can be shown that markets are better than banks for funding new industries, because investors can gather information at low cost and those that anticipate high profits can provide the finance to the new firms. In contrast, the delegation employed by intermediaries does not work well when there is diversity of opinion, which is the case when evaluating prospects for new industries. Investors rationally anticipate that they may well disagree with the manager and are less willing to provide funds without acquiring information on their own. On the other hand, banks are better than financial markets for funding mature industries because there is wide agreement on how they should be managed so the delegation of the investment decision to a bank works well. As a result, individual investors feel that there is no need for them to acquire costly information regarding firms operating in these industries. This, and the economies of scale in information acquisition through delegation, makes bank-based systems more efficient in terms of financing the growth in these industries.

Following the successful experience of other countries, China has its own plans to develop its industries. With the goal being establishing its own top-notch, blue-chip companies in all “vital” industries, and catching up with the most advanced technologies worldwide and become a major player in selected industries in the shortest period of time possible. Successful paths have

---

4 At the turn of the century, the US successfully developed the automobile industry even though the automobile was invented in Germany. After World War I, the commercial aircraft industry was mainly developed in the US. It also had a similar success with the computer industry after World War II and more recently with the biotechnology and the Internet industries.
involved first introducing advanced (relative to domestic companies) but not the most advanced technologies from developed countries (e.g., the automobile industry) and “nationalize” these technologies within designated companies, before moving toward the more advanced technologies. Given this adoption strategy and our above arguments, the banking system can contribute more in supporting the growth and development of these industries than markets. On the other hand, China also wants to be front-runner worldwide in a few “new” industries, and to this end developing advanced financial markets and a venture capital industry is important to finance the growth of these advanced industries.

**VII. Summary and Concluding Remarks**

In this article we examine and compare China’s financial system to the US system dominated by advanced financial markets, and the German system dominated by banks. We find that understanding the German system and reforming China’s banking system should be as important as developing US-style financial markets in China. We also believe China differs from most countries studied in the related strands of literature on comparative financial systems. Going forward, our findings suggest that it may be best for China to develop its existing financial system, instead of simply adopting a financial system based on one or a group of developed countries.
References:


Table 1  Comparison of China’s and World’s Largest Economies: GNP and Growth

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>GNP (US $ billion)</th>
<th>Country</th>
<th>GNP (Int'l $ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US</td>
<td>8879</td>
<td>US</td>
<td>8879</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>4055</td>
<td>China</td>
<td>4518</td>
</tr>
<tr>
<td>3</td>
<td>Germany</td>
<td>2104</td>
<td>Japan</td>
<td>2642</td>
</tr>
<tr>
<td>4</td>
<td>France</td>
<td>1453</td>
<td>India</td>
<td>2215</td>
</tr>
<tr>
<td>5</td>
<td>UK</td>
<td>1404</td>
<td>Russia</td>
<td>1927</td>
</tr>
<tr>
<td>6</td>
<td>Italy</td>
<td>1163</td>
<td>Germany</td>
<td>1893</td>
</tr>
<tr>
<td>7</td>
<td><strong>China</strong></td>
<td><strong>980</strong></td>
<td>Brazil</td>
<td>1642</td>
</tr>
<tr>
<td>8</td>
<td>Brazil</td>
<td>730</td>
<td>France</td>
<td>1364</td>
</tr>
<tr>
<td>9</td>
<td>Canada</td>
<td>614</td>
<td>Italy</td>
<td>1269</td>
</tr>
<tr>
<td>10</td>
<td>Spain</td>
<td>583</td>
<td>UK</td>
<td>1203</td>
</tr>
</tbody>
</table>

Notes: Direct Source for all countries GNP: Statistical Abstract of United States (2000, also from World Bank, US Census Bureau)

**: The GNP of each country in 1999 is converted from local currency to international Dollars, use Purchasing Power Parity (PPP) conversion factor. The PPP conversion factor is obtained from The World Bank Development Indicator (Table 5.6, World Bank. For details on how to calculate the indicator, see “Handbook of the International Program,” United Nation, New York 1992.