



China and Korea in the World Economy

Common Opportunities and Challenges,
Ten Years after the Asian Financial Crises



*Edited by
David Daokui Li and
Youngrok Cheong*

Korea Institute for International Economic Policy (KIEP)
Center for China in the World Economy (CCWE)
Korea-China Economic Forum (KCEF)

Conference Proceedings 08-03

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Foreword

We have seen the 15th anniversary of Korea-China diplomatic normalization in 2007. Year 2007 was important to both Korea and China. Korea passed her 10th year since the financial crisis of 1997, while China moved a new step forward after the first completion of the five years WTO reform and opening program. Both countries have gone through drastic industrial changes in many respects. Korean business was busy renovating her business culture to maintain her global competitiveness. The first measure was slimming down organizations and spinning off business lines. China was also busy upgrading competitiveness using opening pressure from WTO accession. In the past seven years since 2001 (the year of WTO membership accession), foreign direct investment (FDI) has flowed into China at the amount of USD 418.3 billion dollars taking 54.6% of the total in the accumulation basis. As a consequence, China took 4th in economic size and 3rd in trade volume in the World in 2007.

In bilateral economic cooperation between Korea and China, we have also seen drastic changes. First of all, trade volume has increased to USD 145 billion at the end of 2007, which is surprising compared to the amount of USD 5 billion in 1992. Moreover, Korean companies invested in the Chinese market more than USD 30 billion, which is exceptional since Korean business is very conservative in foreign investment. As a result, investment driven trade has increased direct and indirect economic integrations between China and Korea. In addition, more than 700,000 Koreans are estimated to settle in China and send 60 students to China. This shows rapid returns of traditional economic relationship of the two countries before the WWII.

In the 21st century, China is rapidly emerging as a new global economic power affecting the development of the World. In the 20th century, China remained as a global factory equipped with manufacturing

competitiveness based on massive cheap qualified labors. In current days, however, China is moving toward capital supplier and resource reallocation force based on her gigantic foreign exchange reserve accumulated up to USD 1.5 trillion ranked at the world's first. Unbelievable records of speedy development of China render it important to secure major industrial natural resources such as fuel, steel, aluminum, etc. Current global commodity market, as a consequence, is turbulent without knowing where the end is. On the other hand, the US has owed too much to the foreign countries in her massive consumption. In short, China is approaching us totally differently compared to the times of diplomatic normalization in 1992 in the days of weakening US economy.

Considering all these, contacts with China should be reformulated not only in academic arena but also in policy makers. Korea should further understand China's main changes through contacts with major figures in policy making processes and in academia. In this respect, it is meaningful to hold practical dialogues between Korea and China including key representatives from various sectors in a formality of celebrating diplomatic normalization. Tsinghua University was in front in securing top quality scholars and policy makers as can be seen from seminar programs and the Korea Institute for International Economic Policy (KIEP) was also calling top-notch Korean scholars to participate the sessions. Through numerous presentations, we collect several meaningful ones from the seminar and print them as seminar proceeding. I hope this proceeding would work as another channel to a deeper understanding of Chinese economic changes and enhance mutual economic cooperation in the future.

Finally, I would like to express my gratitude to Professor David Daokui Li of Tsinghua University and Professor Youngrok Cheong of Seoul National University for their organizational and editorial jobs of the seminar and this proceeding.

Wook Chae

President

Korea Institute for International Economic Policy

Executive Summary

In Chapter I, Professor David Daokui Li at the Tsinghua University reviews the way in which China has coped with the Asian Financial Crisis in late 1990s and subsequently he evaluates that the current trend of globalization has still created generally unfavorable circumstances for developing countries. He concludes that both developed nations and developing countries collectively have to cooperate in improving the current international financial order and he finally emphasizes China's more positive role, as a swiftly emerging developing country, to build a new, more rational international economic order.

One of the most frequently asked questions about China is whether it can continue its high economic growth and will substitute the US in around 2020 as some international economic institutions predict. In Chapter II, to answer this question, Professor Youngrok Cheong at the Seoul National University identifies two most important China-specific factors, which most other countries do not have: the country's life cycle in the long history of China and its huge country size. Based on the innovative analysis of these two factors, his prediction is that China will sustain its speedy economic growth longer than what is generally expected.

The Asian Financial Crisis gave China some lessons that financial reforms would be critical for a sustainable economic growth. In Chapter III, Dr. Ping Xie, a famous economist on China's financial sector and a former high-ranking financial regulatory official in China, makes a thorough analysis of four essential issues on financial reforms and development China has adopted since the last Asian Financial Crisis. Dr Xie argues that the most notable aspects of China's financial reform are reforming state-owned commercial banks, reforming foreign reserve management structures, strengthening financial regulations, and significantly improving capital markets. His evaluation is that China's financial

reforms have progressed extremely rapidly.

During the past ten years, the higher education in China underwent major transformation and Professor Jun Zhang at the Fudan University explains the core of transformation of higher educational system in China in Chapter IV. The central government supported about one hundred key universities in China. Under the strong support from central and local government, these universities have institutionalized the well-functioned system of recruiting competent scholars, particularly from abroad. Interesting enough, most of the well-known universities widely adopted western textbooks for majors such as economics, finance, and business managements. Most famous textbooks from the western countries are translated in China and both translated version and English version textbooks are widely used in undergraduate and graduate courses at the key universities in China. Furthermore, the transformation of higher educational system in China has clearly been market-oriented and in some future will contribute to the higher economic development in China.

In Chapter V, Professor Yoocheul Song investigates the changing patterns of the structure of trade between South Korea and China. In 1992, the formal diplomatic relationship has been established. Since then, the trade volume between the two countries has grown explosively. Additionally, as the Chinese economy grows at an unprecedentedly fast rate, undergoing very quick drastic transformation in the trade structure between the two countries has been unavoidable. He argues that the bilateral division of labor between the two countries experiences the rapid changes, but both countries, as major trading partners to each other, have further cooperation, which will be crucial for the success of an economic performance in future.

In Chapter VI, Professor Weidou Ni, Tsinghua University, takes the energy issue in China. Under the circumstances that energy and environmental problems in China easily will escalate to a global issue, he argues that China should strategically handle the issue. Energy policy should be constructed in terms of short-term, mid-term, and long-term perspectives. His suggestion for both feasible and environmentally friendly energy sources in China is a poly-generation based on coal gasification.

In Chapter VII, the purpose of Professor Taotao Chen at Tsinghua University is to assess the recent debates on future policy toward

foreign direct investments (FDI) in China. First, she delineates the trends of inflows and outflows of FDI in China. Based on this analysis, she proposes some future direction on China's FDI policy. So far, the core of China's past FDI policy has been a gradual opening-up. And she argues that the past China's FDI policy had been generally successful, thus further expansion of opening-up will probably be beneficial to China. Future China's FDI policy, however, should focus on balance between foreign companies and domestic companies, and China has to develop a new mode to encourage the technology transfer and share knowledge with the foreign companies.

In Chapter VIII, Dr. Junkyu Lee at the KIEP, attempts to evaluate the KOR-US FTA, concluded by the two countries and now waiting the ratification from congresses from both countries. The main motivation, economic effects, and future impacts of the KORUS FTA are well documented. He concludes his short note by mentioning its implications for the Northeast Asian region. He expects that this KOR-US FTA is likely to ignite a domino effect for liberalization in the area and presents a great opportunity for improving the institutional and legal system throughout East Asia in some future. This is both an opportunity and a challenge for workers in these areas.

Another regional issue is the main theme for Dr. Doo-yong Yang at KIEP in Chapter IX. He attempts to explain why there is so little integration among financial markets in East Asia. Through a preliminary econometric analysis, he concludes that the lack of liquidity in Asian financial markets is responsible so his policy suggests, if Asian economic authorities seek more regional financial integration, they should foster bond market development, and in particular, its liquidity.

Lastly, in Chapter X, a very interesting and practical perspective on the financial integration issue in Northeast Asian region is suggested by a prominent market analyst, Hong-Rae Cho, head of research center of Korea Investment and Securities, one of the largest securities companies in Korea. He investigates the significantly unbalanced economic development of Northeast Asian countries, Korea, China, and Japan and their potential risks and disadvantages in the future are also suggested. In concluding, he suggests the sequential procedures for the financial integration in the region: first, the further liberalization in the real sectors among the countries such as trade liberalization by FTAs; second, the further liberalization and deregulation of domestic financial markets in each

country; and finally, the institutional creation of the international financial organization in the Northeast Asian region, for example, an Asian Monetary Fund and an Asian Bond Market initiative.

China in the Realm of the World Economy

David Daokui Li

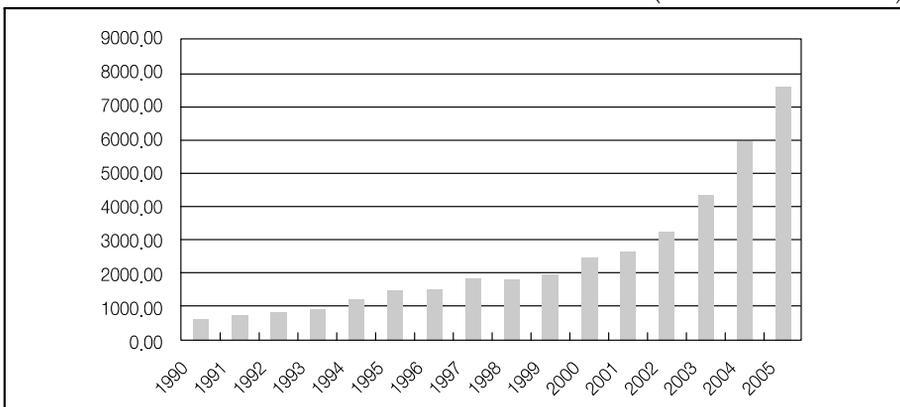
Professor, School of Economics and Management,
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1. China's Experience in Coping with the Asian Financial Crisis

The Asian Financial Crisis had a significant impact on the Chinese economy, which resulted in the evident decrease of demand for China's exports. Therefore, export-oriented enterprises, especially the ones in coastal regions, shouldered more of the burden brought on by the crisis. In fact, China experienced a market drop in the growth rate of the value of exports for two consecutive years (1998 and 1999). This drop, in turn, affected China's economic growth (see Figures 1 and 2).

Figure 1. Variations in China's Export Value, 1990 to 2005

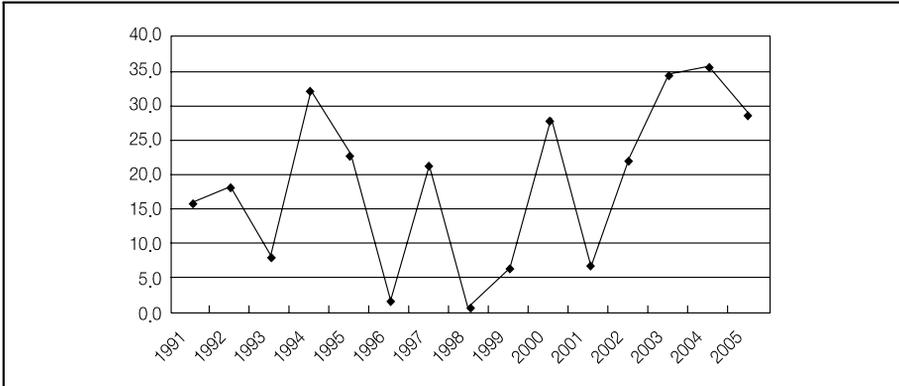
(Unit: USD 100 million)



The impact of the crisis on China's economy was also reflected in the outflow of capital from China (see Figure 3). In fact, for the first time since China's reforms and opening-up policies, foreign direct

Figure 2. Growth Rate of China's Export Values from 1991 to 2005

(Unit: %)



investment (FDI) dropped from 1997 to 2000. Also, from 1998 to 2000, the number of errors and omissions in China's international revenue and expenditure account increased dramatically. In 1998, for example, the value of these errors and omissions reached USD 20 billion, accounting for more than 50 percent of the current-account balance (see Figure 4). Meanwhile, the capital account posted a USD 6.3 billion deficit, which had rarely occurred in China since the launch of economic reforms.

Figure 3. Absorption of Foreign Direct Investment in China, 1990 to 2005

(Unit: USD 100 million)

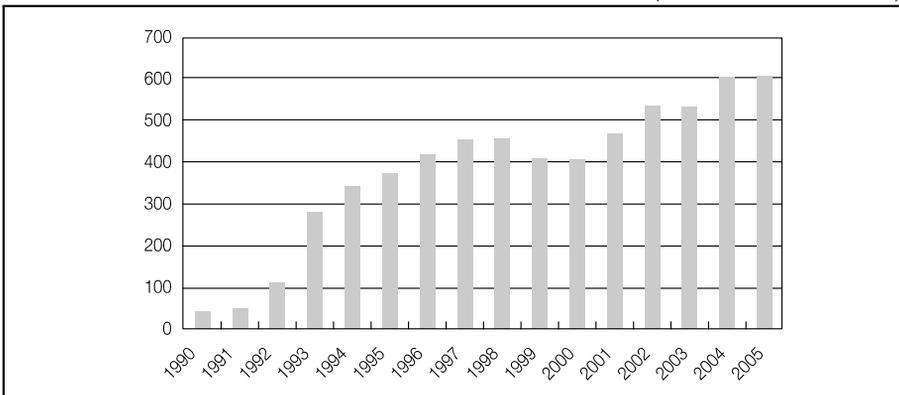
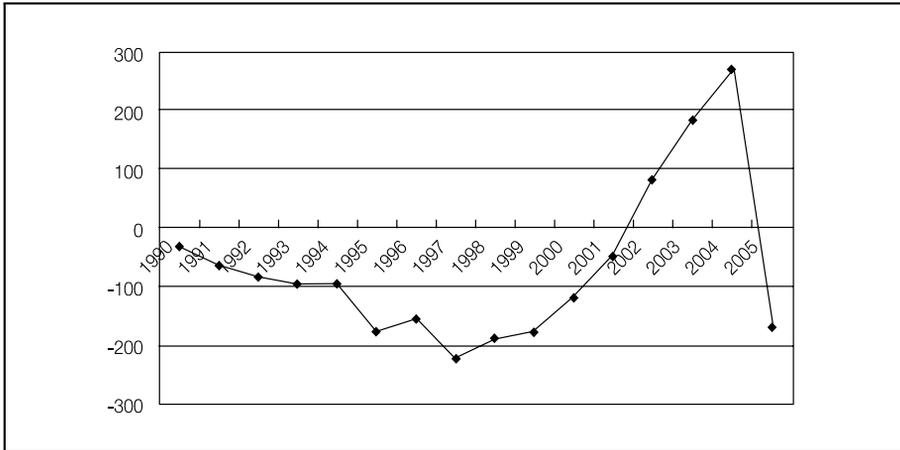


Figure 4. Errors and Omissions in Statistics on International Revenue and Expenditures

(Unit: USD 100 million)



Measures adopted by the Chinese government considerably mitigated the impact of the Asian Financial Crisis. Three of them, in particular, warrant analysis.

1.1. A Flexible Micro-Market Mechanism

By the time the crisis started sweeping across China's economy, the Chinese government had already been implementing economic reforms for nearly 20 years and had already established a market-oriented economic system by and large. Meanwhile a stunningly flexible micro-market mechanism had also been fostered.

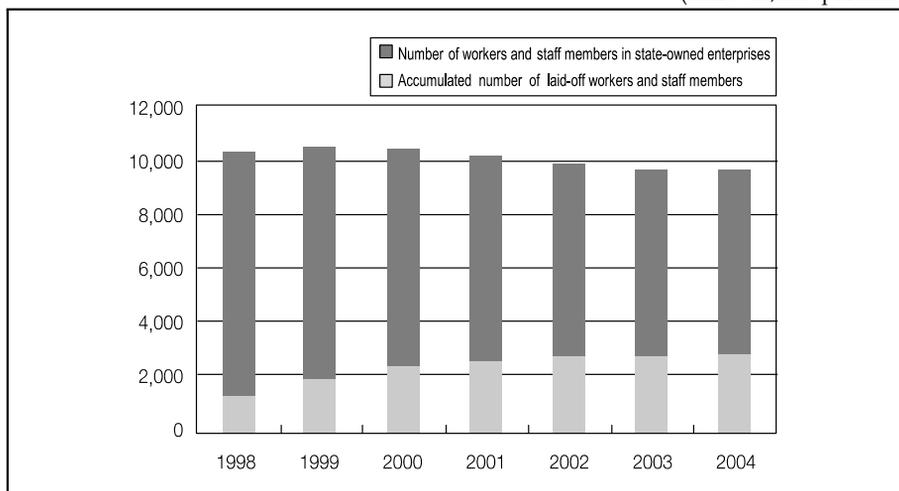
In China's economic environment between 1997 and 1999, the labor market was already considerably flexible and was actually better off in that regard than the labor markets of many other countries whose economies were undergoing change or becoming more market oriented. After having undergone reform for several years, state-owned enterprises in China had all adopted contract-based employment arrangements. In the course of reform, many state-owned enterprises also adopted relatively flexible systems for reducing payrolls by laying off laborers and created new systems related to laying off workers. These arrangements

and systems have boosted reforms of state-owned enterprises and helped reinvigorate them, while preventing any potential adverse impact of unemployment on social stability. At the same time, China's economic climate included a vast number of township and village enterprises, as well as non-governmental enterprises, of which most of whose employees were laborers flowing out of the agricultural sector. The employment system for these rural laborers has been rather flexible. Compared to China, other countries, such as India, have adopted employment systems with much less flexibility (Japan is particularly known for its inflexible employment system.) A flexible employment system allows enterprises to skillfully adjust their production scales and product mixes in response to the rapidly changing market.

Figures 5 and 6 show the estimated numbers of laid-off workers in China as a share of total workers in state-owned enterprises. Figure 7 illustrates the evolution of factual wages in the course of the Asian Financial Crisis. Though factual wages did not fall, the factual wage costs of enterprises did, due to the large scale of lay-offs.

Figure 5. Employed and Laid-off Workers in State-owned Enterprises

(Unit: 10,000 persons)



Note: Percentage taken up by the accumulated number of laid-off workers and staff members in the total number of workers and staff members in state-owned enterprises

Figure 6. Percentage of Accumulated Laid-off Workers and Staff of State-owned Enterprises, 1998 to 2004

(Unit: %)

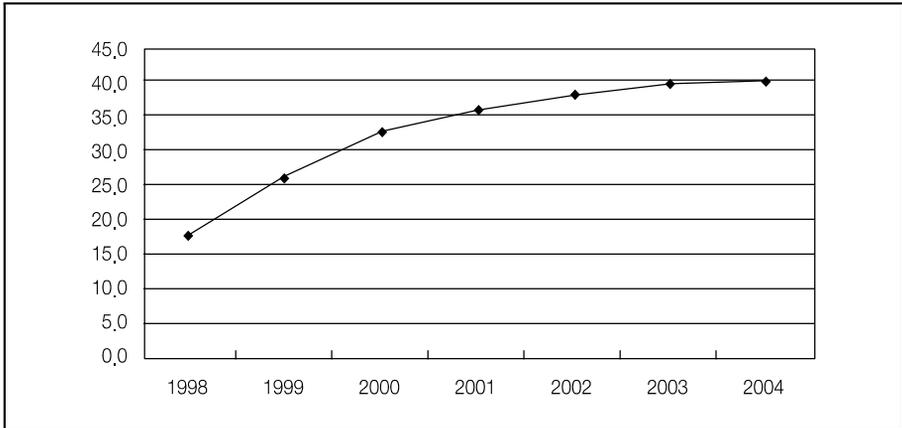
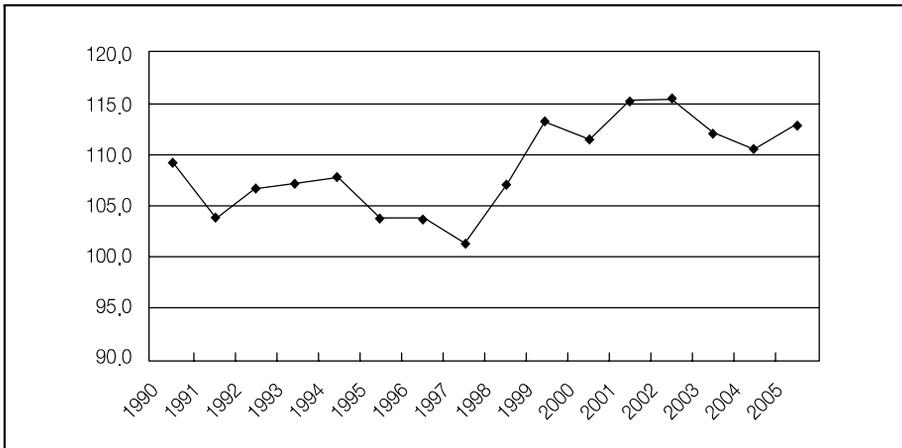


Figure 7. Factual Wage Index of Workers and Staff in China Before and After the Asian Financial Crisis (Previous Year = 100)



The flexible micro-market mechanism was also largely manifested in the formation of the “perfect competition scene” in China’s product markets by 1997. In other words, most of the product markets in China had already opened up by then. The pricing mechanism dominated the market’s supply and demand, and when external demand dropped and domestic demand was adequate, the pricing mechanism functioned well in alleviating the un-marketability of products.

The flexible micro-market mechanism is most importantly manifested in the large-scale influx of new types, which include not only those enterprises with diverse forms of ownership systems in urban areas, but also township and village enterprises in rural areas. Although the property-rights arrangements made by these enterprises were not as clear as those made by wholly privately operated enterprises or state-owned enterprises, they have adjusted well to the restrictions on the objective market environment. In addition, the degree of clarity in the property rights of these enterprises matched the degree of market maturity and enabled the operating efficiency of these enterprises to reach a rather high level.

1.2. Effective Macro Control Measures

When the Asian Financial Crisis began to affect China’s economy, the Chinese government, compared to governments of other affected countries, adopted a more effective and efficient macro control mechanism, principally comprising proactive financial policies. From 1998 to 2001, the Chinese government launched a series of government-guided investment projects, which stimulated a drive for large-scale urbanization and mostly targeted the infrastructure-construction sector. In fact, under the then economic scenario in China, infrastructure construction was seen as a particularly important precondition for China’s development. These government investments helped boost the growth rate of China’s GDP by somewhere between 2 percent and 5 percent.

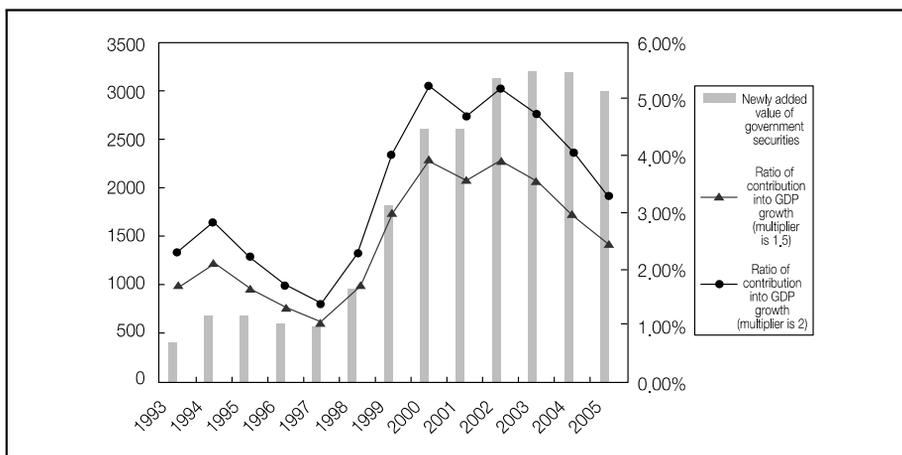
At that time, monetary policy seemed comparatively ineffective because of the defects in the operating mechanism of commercial banks, which caused the Chinese government to mainly take financially-oriented policy measures. China, however, also formulated a series of supporting social policies to help increase domestic demand (See Figure 8 for an illustration of the impact of fiscal policy in China). These

policies included recruiting more students into colleges and universities, increasing investments in higher education, and augmenting wages and salaries for civil servants and others. Such social policies not only solved some longstanding social problems but also enhanced domestic demand by leaps and bounds.

In contrast, Indonesia, Malaysia, South Korea, and Thailand accepted conditional loans from the International Monetary Fund (IMF) and employed restrictive measures in relation to the Asian Financial Crisis. These measures were based on the IMF's past experience in coping with financial crises and called on concerned national governments to swiftly reduce financial expenditures, consumption, and financial deficits. However, these IMF-driven measures undoubtedly fueled the flames of the crisis, causing affected countries to experience even greater economic woes. Unlike the measures implemented in many countries in the region, the measures taken in China made a major difference in weathering the effects of the financial crisis and therefore merit review.

In fact, China's proactive financial policies are what prevented the Asian Financial Crisis from spreading its adverse impact on the country. These policies have not only stabilized China's economic scene, but have also given a strong boost to the growth of Asia's whole economy.

Figure 8. Central Government's Financial Expenditures and Its Contribution to Growth of GDP (with investment multipliers of 1.5 and 2)



1. 3. Meticulous Treatment of Capital Flows and Setting Up an Effective Firewall

When the Asian Financial Crisis erupted, the weakest link in China's national economy was its financial system, which was far more vulnerable to attacks by the international financial capital than those of Thailand, Malaysia, and other countries of the region. The cross-border flow of huge amounts of funds is one specific condition that made China vulnerable to such attacks. Early on, the Chinese government realized the potential hazards of the large-scale cross-border flow of funds. Therefore, China took an extremely cautious approach for many years towards the issue of free convertibility of the RMB under capital accounts. Such caution alleviated the impact of foreign financial capital on China's financial system and national economy. It cannot be concluded that it is feasible to reform a country's financial system without unleashing the flow of capital, but it is necessary to acknowledge that hastily unleashing the flow of capital when the country's financial system remains rather vulnerable is likely to incur disastrous losses, which could be far more than the loss of efficiency caused by the backwardness of a financial system. When the Asian Financial Crisis swept across the region, the Chinese government had set up a powerful "firewall" system between financial institutions and entity economy. For example, China's "Commercial Banks Law" clearly stated that commercial banks were "not allowed to pour funds into the stock market or directly invest funds into the real estate market." Hence, the fluctuations in the stock market and variations of exchange rates would not be transferred to the real economic sector through banks. In addition, when China's commercial banks accumulated many large bad loans, the Chinese government adopted practices to meticulously mitigate the pressure and did not request these commercial banks to immediately show rates of capital sufficiency that measured up to international standards. Instead, it worked out a pertinent schedule, requested these commercial banks to reform themselves gradually, and helped them enhance their rates of capital sufficiency by means of making government investments under certain terms and conditions. Thanks to such governmental investments, commercial banks managed to improve themselves and proceeded to help the real economic sector to avoid the impact exerted by the financial sector. This was China's unique experience in coping with the financial crisis.

1.4. Financial Risks in a Globalization Scenario and Establishment of Domestic Systems

Do financial risks still exist in the newly emerging market-oriented countries a decade after the Asian Financial Crisis? The answer is yes. Most of the newly emerging market-oriented countries around the globe undeniably posted rapid economic growth and quickly increased foreign exchange reserves. However, financial risks, as a consequence of globalization, have persisted. The only change is that such risks have changed its nature since the 1997 financial crisis.

Two types of financial risks may exist in the world economic scene. The first may be termed as “traditional financial risks,” which are manifested in the forms of crisis in international revenues and expenditures, decreased exchange rates, and dramatically increased domestic interest rates. During the Asian Financial Crisis, there were such traditional financial risks, to which a number of countries are still vulnerable. One of these vulnerable countries is India. Although today’s India is registering quick economic growth, it had suffered financial deficits for many years and does not yet have a balance of international revenue and expenditure. Moreover, India’s capital market has relied on enormous overseas investments for a long time (a considerable portion of which are short-term speculative funds). In such circumstances, if there are relatively large fluctuations in major capital-exporting countries or if international investors change their view on the development perspective of India, funds could and will collectively flee from India within a short period. The situation could result in a shortage of foreign exchange reserves, drop in the exchange rate of India’s currency, and rise in interest rates.

The second type of financial risks can be termed as “Japanese-style.” These occur when the national economy is overheated and the domestic consumption is insufficient, thus causing the national currency to suffer a long-term upward pressure for re-evaluation. As a result, speculative capital would swarm into the concerned country, and cause bubbles in prices of domestic assets and these bubbles are hard to maintain. When such bubbles in asset prices burst, the domestic real economy is seriously affected, giving rise to crisis (although the concerned country may have an adequate amount of foreign exchange reserves to cope with capital outflows, hence evading risks in terms of exchange rates).

However, this constitutes a financial crisis in substance because it demonstrates the influence on the entire economy triggered by problems in the financial system.

Assuming China's economic scene sees a relatively large decrease in asset prices, including decreases in prices in the securities and real estate markets, the "wealth effect" to be incurred (excluding the investment effect) could affect China's GDP by 4 percent, equal to about half of China's economic growth rate over the past few years (see Table 1).

Table 1. The Potential Impact of a 50 Percent Decrease in China's Securities and Market and a 30 Percent Decrease in the Real Estate

Current market value of tradable shares	RMB 6 trillion
Loss of wealth in the event of a 50 percent decrease in securities value	RMB 3 trillion
Total current value of urban resident's housing property	RMB 30 trillion
Loss of wealth in the event of a 30 percent decrease in the real estate market	RMB 9 trillion
Total loss of wealth	RMB 12 trillion
Marginal consumption tendency of wealth*	0.07
Decrease of consumption as a result of decreases in the securities and real estate markets	RMB 840 billion
Decrease in GDP	4 percent

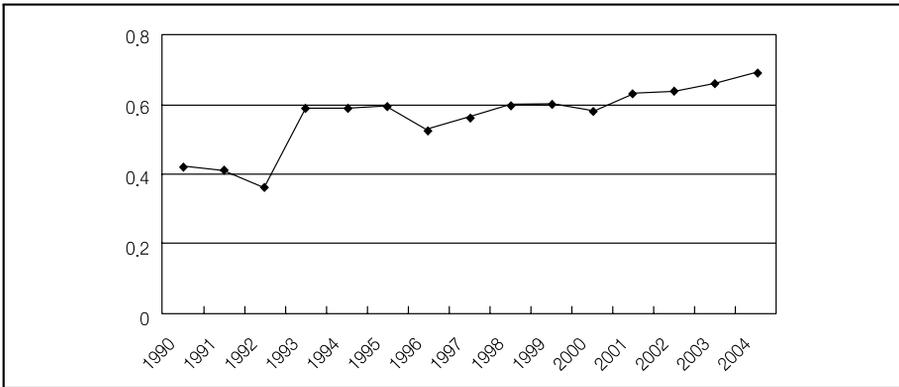
Note: * According to Zandi (1999), the extent of consumption growth as a result of the wealth growth brought forth by the increase of share prices in the stock market is far less than the extent of consumption shrinkage as a result of wealth shrinkage incurred by the decrease of share prices in the stock market; i.e. the marginal consumption coefficient of the negative wealth effect is 0.07.

1.5. Preventing and Controlling "Microscopic" Financial Risks

"Microscopic" financial risks refer to those arising from individual enterprises and generating in the process of financial and economic operations. These financial risks lay the foundation for "macroscopic" financial risks on the whole. In the final analysis, all types of integrative financial risks are largely inseparable from macroscopic financial risks.

In China's current economic environment, microscopic financial risks have loomed disproportionately large because an overwhelming majority of the investments made by Chinese enterprises have come from their profits or from profits made by other enterprises (see Figure 9). Such a mode of investment is not directly restricted by the financial market, and the responsibility for controlling risks has been transferred to the shoulders of non-financial enterprises.

Figure 9. Sourcing of Enterprises' Investments: Estimated Self-raised Funds as a Percentage of Their Fixed Asset Investments
(With the range between 40% to 70%)



Source: Li (2006).

Reducing microscopic and individual financial risks requires two types of efforts. The first includes intensifying the building of a modern enterprise system, enhancing the vigor and vitality of entrepreneurs, and increasing enterprises' capabilities in risk control. In fact, an enterprise's risk-control capability is not a technical concern. Instead, it is largely determined by internal governance, in line with the modern enterprise system. As far as an individual enterprise is concerned, heavy risks are more often than not incurred through non-scientific decisions, which are often the results of ill-conceived actions of staff members. The root cause is the failure to create a wholesome corporate governance structure. Another reason is the unscientific or undemocratic way in which an enterprise's internal decisions are made. Meanwhile, pressures from outside the enterprise (including pressures and restrictions

from the capital market) are not passed on to the enterprise. Therefore, reinforcement of corporate governance is necessary not only to enhance the level of the enterprise's skills in the internal control of risks, but also to reinforce the capital market's confidence in the enterprise's operation, thereby taking better control of operating risks of the enterprise and making a more rational judgment of the enterprise's value.

The second type of effort needed for the reduction of enterprises' microscopic financial risks concerns with supervision. The microscopic supervision as such comes from within the concerned industry (e.g. supervision of operating practices, product quality, customer service, and corporate reputation within the industry) and is conducted by the competent authority responsible for supervision of the capital market. As far as the capital market is concerned, the intensity of supervision and the enforcement force of supervision are two important factors directly determining whether the soundness of capital market.

After the eruption of the Asian Financial Crisis, many corporate governance scandals have taken place in developed market economies, such as the United States. After reviewing the conditions that allowed these scandals to occur, some countries carried out various reforms to their market mechanisms. The reinforcement of supervision and legislation has largely alleviated the financial risks of enterprises.

1.6. Controlling Macroscopic Financial Risks

Macroscopic financial risks refer to systematic financial risks stemming from poor mutual coordination among enterprises and financial institutions. Such financial risks are controlled largely by the government.

Experience in many countries shows that to take control of financial risks on the whole, it is necessary to address three issues, starting with the overheating of the macro economy. When the macro economy is overheated, the conditions are ripe for blind demand for investments, thus leading to increase in asset prices or a huge influx of foreign funds. In such a scenario of overheated investments, the quality of fixed assets formed by such investments is sub-optimal, and it is difficult for poor-quality assets to maintain high-standing asset prices. When asset prices fall, poor-quality assets are inflated through positive feedback resulting from fluctuations in the macro economy, therefore resulting in a macroeconomic crisis.

The second issue to be addressed is the control and holding of financial risks on the whole. It is necessary to properly adjust and intervene in operations of the capital market, which has its own rational and irrational laws of motion. Fluctuations in asset prices are not only determined by various indicators of the macro economy (such as interest and exchange rates), but are also determined by market expectations. Market expectations cannot be 100 percent rational, particularly when observed for a short term. Under such an irrational market framework, asset bubbles are likely to occur (or asset prices will remain at a low level for a long period). By their nature, asset bubbles are hard to maintain in the long run. After asset bubbles are broken, the sharp decrease of asset prices is bound to influence the development of the real economy in some way. The government, including competent supervisory organs, must keep an eye open to the bubbles that arise from asset prices. There is a relatively wide variety of ways to stem bubbles from asset prices, such as appropriately enhancing the interest rate, increasing the costs of bank funds' entry into the capital market, strictly supervising operations of the capital market, preventing market speculation, and properly managing expectations. Expectation management is an important responsibility of government.

The third type of effort deals with taking hold of economic and financial risks on the whole and managing the size of debt (particularly the size of exterior liabilities) in the entire economy. A basic lesson learned from the Asian Financial Crisis is that the size of exterior liabilities incurred by a country must not exceed a certain level. Because developing countries normally value their exterior liabilities in hard currency, their balance of international payments become barely able to support their repayments in cases where exterior liabilities reach a certain size. In such instances, countries inevitably cannot renew their borrowing of funds when debts come due, thus giving rise to financial risks. China has gained ample experience in this regard (see Table 2). Since China's economic reform and opening up, the Chinese government has taken hold of the total amount of liabilities at all times. Through such a strict control regime, the Chinese government lost several types of control. For instance, the Guangdong International Trust Investment Corporation asked for loans from abroad in the country's name. Its ability to repay debt became questionable when the quality of its investment projects was discovered to be rather poor. Meanwhile, the

country's commitment was not honored in full. It is necessary to prevent such cases from occurring again in the course of China's future economic reform.

Table 2. Estimates of China's Exterior Liabilities: Size, Ratio to GDP, and the Ratio to Foreign Exchange Reserves

Balance of exterior liabilities at the end of 2006	USD 0.323 trillion
Gross Domestic Product in 2006	USD 2.68 trillion
Balance of exterior liabilities/gross domestic product	12.1%
Foreign exchange reserves at the end of 2006	USD 1.0663 trillion
Balance of exterior liability/foreign exchange reserves	30.3%
Foreign direct investment balance at the end of 2006/(USD 100 million)	6,600
Profits available for remittance out of China (assumed to take up 30% of the balance)	1,980
Profits available to be remitted out of China by foreign investors/foreign exchange reserves	18.6%

1.7. Establishment of a Firewall

One main measure for dissolving financial risks is to strictly control the ratio of exposure of the national economy to external financial risks. There are many ways to measure the ratio of exposure of a country's macro economy to external economic interference, but among the more important ones is the ratio between the total sums of funds flowing into a country as a result of the short-term capital flows from abroad and the total sum of assets possessed by the same country. Under the precondition of incomplete convertibility in capital accounts, this ratio can accurately describe the degree of exposure to the international financial market. Undoubtedly, such a ratio of exposure to financial risks must be strictly controlled.

On the premise that the ratio of exposure stated above is strictly controlled, it is necessary to restrict the influence of fluctuations in the capital market on enterprises' operations and to control the influences on families' consumption from a national perspective. When fluctuations

occur in the capital market, they can be transferred to operating practices of enterprises through various channels. One of the more frequently occurring channels is seen when the capital market turns downward. It then becomes hard for enterprises to issue (original) stock shares, thus making it difficult to raise funds. This mechanism is not the most important option around the world because most countries still adhere to a bank-centered financial system.

The second channel through which the fluctuations in the capital market influence enterprises is seen when bank capital enters the capital market directly or indirectly. When the capital market moves downward, bank capital falls and as a result, banks must reduce the size of related loans, which causes enterprises' investments to drop. China must set restrictions upon such a mechanism within a short amount of time. Specifically, enterprises should be encouraged to go through a strict supervision, examination and approval system to become listed on the stock market and to raise funds at relatively low costs. Even if stock prices were to go down, those companies that operate successfully and adopt proper business practices would still be able to get listed on the stock market, and raise a certain amount of funds. Besides, commercial banks should continue to resist re-determining their statutory capital in line with share prices in the short and medium terms, thus cutting off the influence of price fluctuations in the stock market towards the operation of banks. In this way, bank behaviors can become relatively independent of the capital market.

In fact, a basic lesson from the Great Depression of the 1930s in the United States is the necessity for cutting off capital market fluctuations' influence on the real economy, thus reducing the influence of price fluctuations in the securities market toward banks. One often-used measure to reduce fluctuations in the capital market and consumption behavior is the fostering of institutional investors, instead of mobilizing individuals and family consumers to straightforwardly enter the stock market. When institutional investors become comparatively mature, consumers can participate in the capital market by buying retirement funds and insurance funds. In case of price fluctuations in the capital market, because fund investments made by families are long-term stable investments, families' consumption will remain constant in the face of fluctuations in the stock market, thus minimizing the influence on the real economy.

In short, in this era of globalization, financial risks remain in newly emerging market-oriented economies such as that of China. Despite constant economic growth in China, there is a need to carefully study and prepare for possible financial crises in the future and minimize risks.

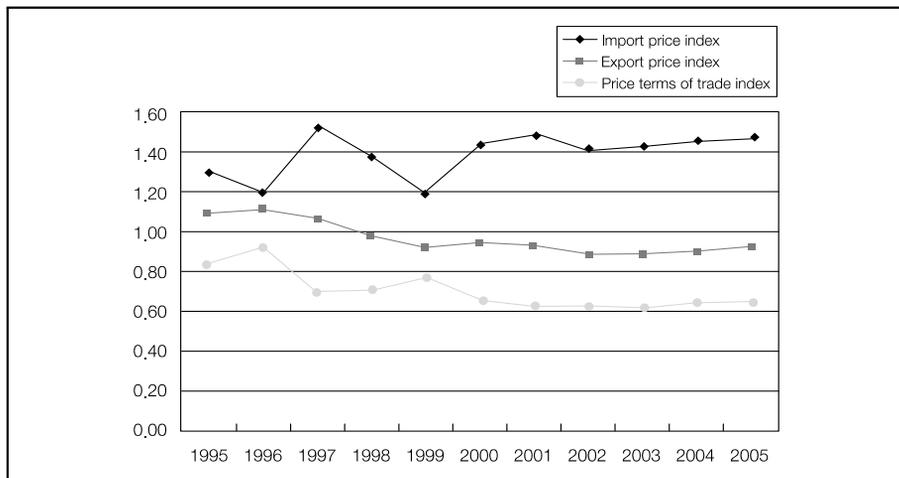
2. The New Economic Order and Developing Countries

The international economic order is more unfavorable to developing countries today than it had been since the 1990s, when globalization began to sweep across the planet. In this economic order, developing countries will inevitably fall into “development traps.” In large part, the so-called “medium-income trap” in developing countries is closely correlated with irrationality about such an order.

2.1. The System of Trade

Prior to the 1990s, unfavorable terms of trade were an important factor holding back many developing countries. In those years, many developing countries’ participation in the international economic division

Figure 10. Evolution of China’s Foreign Trade Parity



Source: Cui Jindu and Li Chengbang (2006).

of labor was confined mainly to exporting raw materials. However since the beginning of the 1990s, many developing countries, particularly the ones that recorded rapid economic growth, have been involved in the tide of economic globalization principally by providing processing services for developed countries by tapping their low-cost labor, thus earning foreign exchange. In the new global economic layout, terms of trade have been stacked against developing countries; the trading system has also been irrational towards them, as these countries (including China) must face market pressures regarding prices of raw materials. Meanwhile, market prices of products are sliding downward (see Figure 10).

Growing protectionism in developed countries' trade has posed a challenge to fast economic growth in developing countries. In the current course of globalization, even developed countries are, per se, faced with a mission of economic restructuring. It is widely seen that industries whose added values are generated by cheap labor have gradually relocated from developed countries to developing ones and those with newly emerging market-oriented economies. Therefore, the production outputs of these industries in developed countries are continuously decreasing. This used to be the basic mode of development in the world economy. Unfortunately, because the governments of many developed countries failed to perform their duties in economic restructuring, local politics have become more influential in promoting protectionism.

Protectionism hampers developing countries' efforts to open up their economies and discourages improvement in their performance in the macroscopic circular flow of the world economy. A frequently seen reflection of increasing trade protectionism is the rise in anti-dumping cases. In recent years, developed countries lodged a growing number of anti-dumping suits against developing countries (particularly against China) that employ export processing as a major means of export, thereby causing developing countries to suffer a series of setbacks in exports. Another important manifestation of trade protectionism is the manipulation of exchange rates in the so-called developing countries. Developed countries coerce developing countries into stemming growth of their export sales through increases in exchange rates. In reality, exchange rates are a relatively minor factor regarding trade imbalances. The major cause of trade imbalances is not an exchange-rate discrepancy

between countries. However, exchange rate issues are nevertheless frequently used as a pretext by politicians in developed countries for restricting exports from developing countries.

2.2. Intellectual Property Rights

With the expansion of globalization and the increasingly detailed division of labor among countries, developed countries have become fully aware of their core competitive force of the intellectual property rights they have accumulated over the years. Therefore, developed countries often draw excessive attention to intellectual property rights, in an attempt to safeguard their economic competitiveness. There have been three types of problems in protecting intellectual property rights.

The first deals with irrational pricing. Today, developed countries persist in levying heavy royalties for intellectual property rights in

Table 3. Fees Charged for Intellectual Property Rights to Produce Digital Video Disk Players in China in 2004

Payee in China	Patentee	Ratio of patent fee
3C	Philips, Sony, Pioneer	3.5% of the selling price; minimum fee: USD 3.5 per unit
6C	Toshiba, Hitachi, Panasonic, Mitsubishi, Times Warner, JVC	4% of the selling price; minimum fee: USD 4 per unit
1C	Thomson	2% of the selling price; minimum fee: USD 2 per unit
Dolby	Dolby	About USD 1 per unit
MPEG-L A	Administrator of the patent pool comprising 23 patentees	USD 2.5 per unit
DTD	Digital Theater Systems, Inc.	USD 2 to USD 3 per unit
	Total patent fee on average	USD 19.70 per unit
	Average selling price	About USD 100 per unit
	Approximate percentage taken up by patent fee in the selling price	20 percent

Source: Wei Yanliang (2004).

relation to rather mature technologies (such as the technology for manufacturing digital video disks and mobile telephones). Such royalties have intangibly impeded economic progress in developing countries (see Table 3). Exorbitant pricing of intellectual property rights has been a reflection of the deeply-rooted deterioration in terms of trade between developing and developed countries over many years. The truth is, developed countries paid no respect to intellectual property rights at all in the course of their own economic development. For example, the United States, during its own economic development, did not respect the United Kingdom's copyright agreement in the 19th century and reprinted publications of the United Kingdom at will. Despite such disregard for intellectual property rights of other countries, the United States still levies royalties and patent fees on developing countries.

Another problem in relation to intellectual property rights is that developed countries insist on fees even with core technologies essential for social development. For example, giant corporations in developed countries have made no concessions on intellectual property rights related to technologies for environmental protection, energy conservation, and medicines to prevent or treat diseases such as HIV/AIDS. Overall, these fees have generally impeded the developing countries' economic development. In fact, developed countries' persistence in levying exorbitant fees for certain core intellectual property rights benefits neither the developing nor developed countries. Exorbitant fees actually encourage the pirating of technologies, which are then used to churn out inferior-quality versions. But such pirating and mass production of inferior goods makes it impossible for developing countries to benefit from new technologies in the long run and makes it hard for developed countries to earn revenues from charging intellectual property rights because the volume of such rights transactions is too low. Therefore, when it comes to protecting intellectual property rights, developed countries should collaborate with developing countries toward a solution, which would guarantee lower costs and a greater transaction volume, thus leading to a win-win situation. In this regard, some newly emerging non-profit welfare organizations, such as the Bill and Melinda Gates Foundation, have been wielding greater influence. Such organizations offer a promising perspective for the solution to problems related to intellectual property rights and toward the economic and social progress of developing countries.

2.3. Capital Flow and Risk-Distribution System

Developing countries have occupied unfavorable positions in the world's economy. One of the main causes of the disadvantageous positions is that developing countries have undertaken the entirety of exchange rate risks arising from financial relations with developed countries because most institutions in developing countries have been unable to receive loans via valuation in their home currencies. When a developing country such as India asks for a loan from abroad, the funds flow into the country in US dollars. Once these funds flow out of India's stock market to other countries, it is necessary to convert the rupees into dollars, thus generating a pressure on India's international revenue and expenditure system. Once the rupee decreases in value, the losses will be borne by India as a whole. On the contrary, today's China has an international payments surplus, but China's foreign exchange reserves are valued in dollars or Euros; therefore, when the exchange rate of US dollars or Euros against the RMB drops, Chinese organizations holding RMB and US dollars will have to undertake the exchange rate losses.

Such a risk-distribution system is certainly unfavorable to developing countries. The ultimate measure for changing such a system is to allow or assist certain developing countries to conduct financial transactions via valuation in their home currencies.

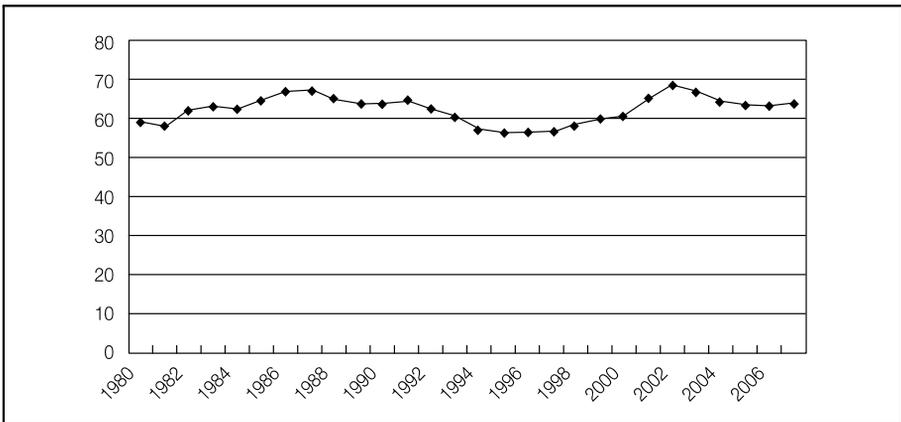
2.4. Currency Policy and Coinage Income

Because currencies of developing countries have not yet become internationally accepted, the predominant currencies of the world's financial scene are the US dollars and Euros. When the currency policies of the central bank of the United States or Europe undergo changes, these changes will naturally be passed on to developing countries in various ways. For example, if the US dollar interest rate rises, the interest rates in developing countries will also rise; otherwise, funds will flow back to the United States via diversified channels. Such an arrangement is unfavorable to developing countries, because when the central banks in Europe or in the United States formulate their currency policies, the banks naturally aim to adjust their own national or regional economies without considering the influence their policies

have on other countries. Therefore, fluctuations in currency policies will undoubtedly be passed on to developing countries, and thus generate an adverse influence on developing countries.

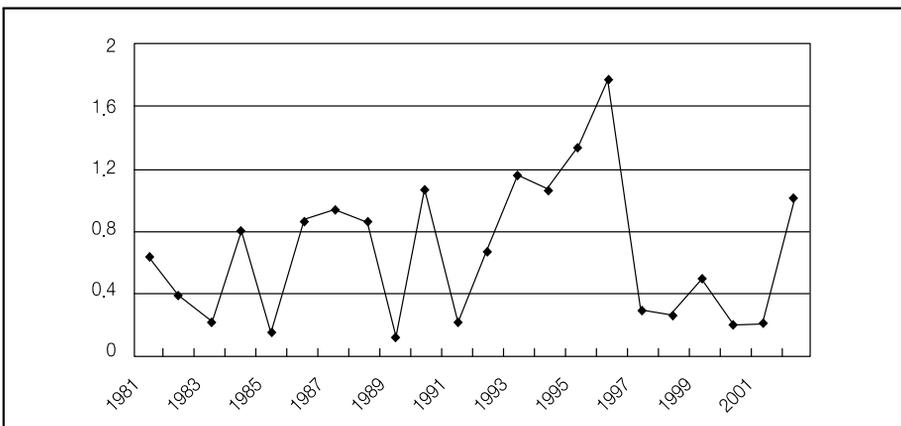
In fact, one trigger of the Asian Financial Crisis was the United

Figure 11. Ratio of M2 to GDP in the United States



Source: WDI (2006) and US Bureau of Economic Analysis.

Figure 12. Estimated Coinage Income of the United States (International Earnings of US Dollars, 1981 to 2002, as a Percentage of GDP)



Source: Chen Yulu, *et al.* (2005)

States' tightening of its currency policies in mid-1997 with the goal of taking control of the bubbles in asset prices that were brought on by overheated investments in the Internet-based economy (they did not result from any judgment about the global economic climate). As shown in Figure 11, the ratio of M2 to GDP in the United States bottomed out causing the exchange rate of the US dollar to rise and triggering the Asian Financial Crisis. M2 is the measure of the US money stock that consists of M1, certain overnight repurchase agreements and certain overnight Euros, savings deposits (including money market deposit accounts), time deposits in amounts of less than USD 100,000 and balances in money market mutual funds (other than those restricted to institutional investors.)

Coinage income is another significant factor (see Figure 12). The US dollar has become the world's main currency in foreign exchange reserves and has served as the principal settlement currency for international trade. The Eurodollar, as a freshly emerging currency of international reserves and for international trade, has been issued in an increasing volume. The coinage income out of such an increasing volume of issuance has been possessed by the Federal Reserve System in the United States and by the European Central Bank. Such coinage income flows back to the central banks in the United States and in Europe in various forms. For example, when Federal Reserve System augments its currency issuance volume, a large portion of the currency issued flows abroad, and the Federal Reserve System purchases US government securities in the form of a currency issuance, thus substantively protecting the US securities market. Such support to the US securities market has been manifested in the fact that the earning rate on US government securities has remained at a rather low level for a long time. Such a low earning rate has boosted the long-term boom of American economy. Figure 11 sets forth the ratio between US dollar coinage income and GDP of the United States, which fluctuates around 1 percent. By the same token, the central bank of Europe can buy European bonds by means of issuing Euros, thereby keeping the interest rate of European bonds at a relatively low level while safeguarding economic development in Europe.

2.5. Ex-Post Facto Aid

The last front in which the international economic order is unfavorable to developing countries becomes apparent after a financial crisis—when developed countries' aid to developing countries did not fully consider the interests of developing countries. Instead, developed countries, when having offered such aids, had paid more heed to how to guarantee that their creditors could recover loans. Historically, developed countries' aid agencies, represented by the IMF, have overly emphasized the necessity for developing countries to adopt tight fiscal policies in the short term after having suffered a financial crisis. These policies included ones related to fiscal restraint and currencies. Policies of restraint have indeed brought forth some excessive and unnecessary economic pressure on developing countries (see Ito, 2007) and have aimed to reduce risks to creditors in developed countries and guarantee the recovery of their investments within a short time.

Ostensibly, policies that overly emphasize short-term restraint have not been accompanied by ordinary economic analysis. After the occurrence of a financial crisis, the aiding party should make its best effort to reduce economic loss and stabilize the financial scene. Under certain circumstances, it is necessary to enlarge financial expenditures and to put into force various kinds of relatively loose currency policies to maintain the normal operation of the economy. However, because developed countries have the absolute right of control in the ex-post facto aid mechanism, economic aid provided after a financial crisis in today's world is often attached with overly uncharitable conditions. The root cause of these occurrences has not yet been definitively identified. Therefore, when the next financial crises occur in developed countries, their impacts will exceed those of a regular financial crisis.

2.6. Summary

Despite the sweeping tide of economic globalization, the international economic order of the day remains quite unfavorable to developing countries. Developing countries must repeatedly appeal to all countries and international policy makers to scrutinize irrational elements in today's economic order. Only when the international economic order becomes more rational can the world economy step into a path of

long-term prosperity. Meanwhile, developing and developed countries could embrace common prosperity and development and share harmonious environment. As a swiftly emerging developing economy, China has the capability and the reasons to adopt reasonable and well-structured measures to support its efforts in building a new, more rational, international economic order.

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Interpretation of China's Economic Comeback

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1. Introduction

From the late 20th century, China's grand economic bounce back has been taken as one of the global miracles. According to government statistics, China has shown average annual growth rate of about ten percent for almost one generation, doubling its economic size every seven years from 1978,¹⁾ which has never been possible in modern development history.²⁾ Moreover, it is very striking to observe that China has doubled her GDP size in less than five years since her WTO accession in 2001, which is also phenomenal because many countries had hoped to stall speedy Chinese development by putting her into the WTO system. Quite strikingly, in fact, China became the biggest beneficiary from the WTO accession. Presumably, it was due not only to speedy economic development but also to RMB (Chinese local currency) appreciation.³⁾

Facing the Beijing Olympic Games, the China issue is rekindled⁴⁾ by both domestic and foreign watchers. Two questions are significant. The first question is whether China will continue her speedy economic development even after the 2008 Beijing Olympic Games. Judging from past experiences of Asian countries, such as Japan and Korea, it can be easily predicted that China might suffer from overinvestment to hold

1) In recent days, RMB appreciation accelerates USD denominated GDP size.

2) At most, Japan recorded speedy development for a decade, while Korea recorded it for about 15years.

3) Since July 2005, China has appreciated its currency from 8.7 to 7.3, and passed HK dollar exchange rate, which is fixed at 7.74 HK\$ per USD 1 dollar.

4) Pax-Sinica argument emerged in journalism.

the Games. For example, many facilities may become idle after the event. The second question is whether China will continue her high growth and substitute the US around 2020 as many international institutions predict.

To these questions, many diversified arguments have been put forward: some are positive while others are negative. In an economic analysis, scholars are apt to prove the possibility of a sustainable China by providing improved tendency of TFP. However, all these efforts were proven mixed based on different data sources. Moreover, China is now uncontrollable in its economic development even when she has not yet assumed her hegemonic power.⁵⁾ She has already secured a strong enough development momentum and many countries seem to already recognize this reality.⁶⁾

In the negative side, some school sees Chinese performance as still being misled by exaggerated statistics⁷⁾. In addition, other schools argue that recent outstanding economic performance can be ascribed to the high growth, which happens in the initial economic development stages as witnessed in many countries with a low basis, and that China is basically enjoying the 'late comer advantage,' copying other development models of Asian countries. It is also argued that China is losing momentum through over-investment, or losing comparative advantage (CA) edge due to increased wage levels and/or limitation in imitation economy. Moreover, it is argued that China, as a one-party country, could not sustain her high growth development, if she had confronted the diversified democratic demands from the people of China. The so-called democratization trap (per-capita income of over USD 3,000) is approaching China and it might be inhibited by possible conflicts between central and local governments.⁸⁾ It seems natural for China to

5) It is a kind of an unintended consequence. China, originally, was taken as a partner to contain the USSR in the Cold War era under the assumption that China could be controllable by the huge economic power of the US. Contrastingly, China is projected to equip its autonomous development momentum.

6) For example, the UK is active in the conscription of many new breeds from China aiming to improve the relationship with China.

7) Rawski (2001), for example, is among the best known scholars.

8) Taiwan's independence is also critically mentioned in journalistic level in addition to possible independence of Guangdong province due to her expanded economic size.

be separated after the unification as China is likely to be separated into at least three different countries in the end.⁹⁾

All these arguments, however, seem to lack objective clues. Current analysis seems to be too fragmentary or too short in coverage of time span. No argument provides any persuasive examples to support its claim except some conjectures based on failed development of other countries, especially the Latin American countries. However, it is too simplified to conclude that China will follow the same path. Recently, in social science arguments, quantitative as well as qualitative clues have been put forward to strengthen their arguments. However, they lack explanations on why and how China showed unexceptionally high growth rate. There might be something special, which could not be explained by traditional development theory.

Since China has its own dynasty (or regime) cycle and long history, China's development trajectory could be somewhat different and unique. Therefore, predicting Chinese future might be somewhat different as well. In this context, this paper will be a conceptual one emphasizing the two most important elements characterizing China as being differentiated from other countries; the country life cycle in the long history of China and the huge size of China. Based on this, this paper will venture to predict China's economic development since 1949 from a longer time perspective based both on generalized country's life cycle and size effects of China.

2. General Discussion on Size and History

2.1. Stylized Facts from Contemporary Countries

In the beginning, we analyze the contemporary situation in relation to size and history based on obtainable data. Fortunately, the World Bank provides us with valuable statistics every year. The World Development Report is a data collection of about 132 countries from several variables covering population, GDP, and per-capita income. For our research, we also added the length of the current regime of the

9) Some Japanese scholars argued it in the late 1980s right after the Tiananmen Square accident. This line of argument has been rising in the US as well.

country since its foundation. Table 1 summarizes the ten biggest and most traditional countries and Table 2 provides a correlation index among variables.

Regarding size, what could be the basic components? Will it be population, area, or economic size? The G7 are regarded as big countries since they have at least USD 1 trillion GDP size. As of 2006, the US leads GDP size with USD 13 trillion followed by Japan (USD 4.3 tril.), Germany (2.9 tril.), the UK (2.3 tril.), France (2.3 tril.), Italy (1.8 tril.), and Canada (1.3 tril). On population size, eleven countries exceed 100 million; these being China, India, the US, Indonesia, Brazil, Pakistan, Nigeria, Bangladesh, Russia, Japan, and Mexico. On area size, we have also six continent-type countries such as Russia, China, Canada, the US, Brazil, and Australia. In terms of country's lifetime, more interestingly, there were only ten countries, which had independence from the 16th century.

Combining Tables 1 and 2, we can derive a couple of more interesting facts. First of all, developed countries do not necessarily lead in population and area size. While 58.5 percent of the sum of GDP is

Table 1. List of 10 Big and Traditional Countries

Rank	Population (Million)	GDP (USD billion)	Area (Thousand km ²)	Length of Regime
1	China(1,312)	US(13,202)	Russia (17,075)	Ethiopia
2	India(1,110)	Japan(4,340)	China (9,561)	France
3	US(299)	Germany(2907)	Canada (9,215)	Germany
4	Indonesia(223)	China(2668)	US (9,159)	Greece
5	Brazil(189)	UK(2345)	Brazil (8,547)	Netherland
6	Pakistan(159)	France(2230)	Australia (7682)	Portugal
7	Nigeria(145)	Italy(1845)	India (3,287)	Spain
8	Bangladesh(144)	Canada(1251)	Argentina(2,737)	Sweden
9	Russia(142)	Spain (1224)	Kazakhstan(2,717)	UK
10	Japan(128)	Brazil(1068)	Sudan(2506)	Thailand
Total	6,518	48,254	135,840	

Note: Length of regime is not ranked but listed only.

taken by the ten richest countries, their shares of population and area remain at 11.1 percent and 14.9 percent respectively in the world. As such, correlation seems to be less strong among economic, population and area size, although there is a rule of thumb notion that a population over 100 million and GDP size over USD 1 trillion would have higher likelihood to be self sufficient.

About population density, the Indian continent is bigger than China. If we add India together with Pakistan and Bangladesh, the population amounts to 1,423 million in 4231 thousand km².

Another interesting point is that most countries in the world were liberated after the 18th century. This means that countries are emerging and declining similar to the shift of hegemonic power as argued by Paul Kennedy (1989). Even in the 1990s, 24 countries newly declared independence mostly due to the breakdown of the Soviet Union. All this alludes that countries have the same characteristic as a biological organ, which has its own vicissitude or lifetime.

Table 2. Correlation between Growth Rate and Various Size and History Variables

	GDP size	Per-capita GDP	Regime Year Length	Population	Territory Area
Average	370.6 bil.	USD 9,924	112 years	49 mil.	979 thous.km ²
Correlation with Growth Rate	-0.136	-0.325	-0.252	0.160	0.066

Note: Number of observation = 132

We also calculated the correlation of variables along with the average growth rate of the last seven years. The preliminary result is reported in Table 2. First, the bigger the GDP or per capita GDP is, the lower the growth rate is. At the same time, countries with a longer regime show a negative growth rate. The only positive variable is territory size; the bigger the territory size is, the higher the growth rate is in general, even though the correlation is weak. However, the correlation is not so strong judging from coefficients. It is really a weak generalization of growth rate on size and history. Presumably, high

income or bigger economies may show lower growth rate since those economies have already moved into mature stages. In addition, bigger sized territories allude to the importance of market or natural resource endowment in lifting growth rate. Finally, a traditional country with a long regime tends to show lower growth rate, which implies that the younger the country is, the higher the growth rate tends to be. This seems to be the same as a young toddler growing fast until its early 20s.

2.2. Identifying Possible Equations

Less emphasis on size and history could be ascribed to the formulation of modern economics from the US experience. It cannot be denied that modern economics theories are basically an output of the US and that application of free trade is to a few smaller countries like the four newly industrialized economies (NIEs). Macroeconomics was also developed in the process of overcoming the Great Depression of the 1930s in the US. As a result, economics is domestic rather than international. Also, if we assume large enough to affect other economic agents, it would become much more complicated to theorize because of complications in generalization. In addition to this, the US has a relatively short history of just over two hundred years.

Bearing the above discussions in mind, we hypothesize as below:

Growth Rate = f (size, history), where,

Size = f (economies of scale, diversity, absorptive attitude, etc.)

History = f (resource mobilization capacity, consensus building skill, overseas resource pool, other learning curve, etc.),

meaning, growth rate is related to country size and history.

3. Application to Chinese Development

3.1. Whether China is Unique?

China is unique in some respects. First of all, China was at the

core of the world at some point in the past world history¹⁰⁾ and is trying to regain its development momentum, whose result about its success or failure cannot yet be told. If China is successful in reconstructing its glorious development, she will be the first and only country to repeat her super power in the world history. Second, China is the third largest country in the world, having 9.6 million km² as her territory and a 1.3 billion population taking 1/5 of the world. Also, her current size of economy is ranked fourth in the world, coupled with a bigger contribution to international trade ranking as the third largest in 2006.

3.2. Country Size

China is somewhat unique in the sense that she could exercise economies of scale. As we have seen in Table 1, she is inside the 1 billion population club with India and 1 trillion GDP club with G7 countries. Only four countries are inside the global Top 10 in terms of population, GDP, and area criteria at the same time. In addition, China is the third biggest country in area size. At the initial stage of Chinese economic development, China seemed to be obsessed with two things; achieving self sufficiency in food and joining USD 1 trillion GDP club as quickly as possible, since having a GDP size over 1 trillion was taken as a key criteria for differentiating rich countries from poor countries.

China is composed of one dominant race of Han and 55 minorities. More importantly, China is composed of 31 big local governments having an average population of 40 million, which is nearly equivalent to the world average population of a single country (global average is about 49 million, see Table 2). As such, China is composed of 30 independent countries in population criteria; while it is composed of almost 10 countries in GDP size (global average is USD 370 billion). Even though China uses Mandarin as an official language, they allow many dialects, such as Cantonese and Fujianese, as official languages in practice. Therefore, it is highly complicated to unify China in a single rule. China is not a country but a united nations of China covering most of minorities, which works as a basis of diversity. In this

10) Silk Road was open to stimulate trade between China and Rome.

regard, as creativeness is being emphasized recently, China has some advantages in the midst of the disadvantages of minority conflict.

Regarding high population, it has at least three different implications in different development stages: national burden to be fed in the initial stage followed by a basis for supplying cheap labor,¹¹⁾ and a source for creating new things from competition. China was eager to increase her agricultural productivity by turning the huge Chinese population into an industrial basis for cheap labor. From 1980, China has adopted the One-Child Policy, which is also related to the policy agenda of changing the huge population into a much more productive resource.

Currently, China is moving her huge population as a new basis for creativeness. Emphasis on education from 1998 could be interpreted as one of her efforts to do this. Population pressure itself leads to a workable perfect competition. To survive, the Chinese themselves have to compete to the end. It is interesting to observe the fact that many billionaires are rooted from the Sichan province, which is indirectly related to our assumption that the more populated an area has, the more competitive the environment is. In Korea, high population density has led to super competition among people and had citizens lose rests and hold even reactionary attitude, which is similar to socialistic innateness subconsciously showing no more competitions. It is no exaggeration that the Chinese themselves are akin to the businesses since they are accustomed to living with excessive competition rooted from over population and land pressure.

As a greater economy having over USD 3.2 trillion (2007), China could also be interpreted differently. It means China has more than ten sets of independent economies. In China, currently there are four sub-economic centers such as huabei (Beijing-Tianjin), huadong (Shanghai- Nanjing), huanan (Hong Kong-Guangzhou), and huazhong (Chengdu-Chongqing), and all of them have their own economic independence more so as they individually approach an economic size of USD 1 trillion. These four regions are populated by different people and customs and in the recession, if at least one region is economically strong and sound enough, it will take a shorter time to bail out national recessions, as the same logic from multiple air engines.

11) Arthur Lewis (1954) already emphasized this point. Xiao and Cheong (2003) also witnessed this.

From the late 1980s, global structural readjustment started with strong globalization trend. In the process of overcoming economic downturn in the US, many US industrial facilities were sold in a fire sale and China was one of the key buyers. Also, China could choose optimal technology from selling to countries among developed countries, which is a typical example of a buyer's monopoly in industrial facility markets. These enabled China to be equipped with relevant technologies in a rapid period of time.

Specialization (based on CA) and diversity are two major explanations on the international trade basis in recent days. In the past, CA was emphasized while new trade theory emphasized more on diversity. The market needs both diversity and cheap goods, which means a bigger country with diversity. If we define diversity as having more minority groups with independent economic capacity, China fits well since China is unique in having not only 55 minorities in five autonomous regions but also in having local levels ruled by minorities. A huge population works positively to have cheaper products while the minority groups provide diversity. As a result, China became a key beneficiary of the WTO accession, based on cheap labor and economic integration stimulated by foreign direct investment (FDI) from other countries.

Accommodation is one of the characteristics of a large country. In adopting the open door and economic reform, China allowed massive overseas investment to flow into China, even though she still was driven by bad memories of being dominated by multi-national companies under imperialistic periods, which strikingly contrasted to other Asian economic development models. In addition, China recognized the talents of foreigners, and even nominated them for very important posts such as the CSRC vice chief. Foreign experts were also recognized and accepted positively in China. In recent years, many foreign students are now studying in China. Judging from the per capita GDP of China,¹²⁾ it is also ironic to see so many students from both developed and developing countries flow into China. In the case of the US, it is also prevalent to observe many talented overseas students are studying in the US institutions.

The Qing dynasty, having recognized the inferiority of her ethnicity

12) China is still recording just above USD 2,500 in 2007.

in both number and quality, borrowed power from other ethnic groups of Mongolia and selected elite groups inside the Han people. As a result, Qing could sustain its country life from 1644 until 1911, recording one of the longest dynasties in the whole of Chinese history, following only Han, Tang, and Song, counting from the Qin dynasty.

3.3. History

History can work positively when we assume that development depends on resource mobilization capacity, level of national pride, cultural assets, immigration pools, and knacks of crisis management. Before we elaborate, we have to clarify two key issues: What is China? Will it be based on ethnicity or territory? We define China as an area covered by the World Bank Atlas and the Chinese as ethnic groups having once lived in the borders of China. There exists a couple of caveat, since many of the Chinese dynasties were set up by non-Chinese ethnic groups, including the Mongols and the Manchus. We define Chinese dynasties as having existed once in the border of China. In Chinese history, the Han dynasty, Tang dynasty, Mongolia, Ming, and Qing were taken as Chinese dynasties. In the past, China denied non-Chinese dynasties as their formal history. However, in recent days, they have tried to include those dynasties as part of Chinese history. In the past, Mongolia and Qing were disgraced in Chinese history. It was influenced by Mao Zedong's ideology to defeat Qing dynasty, which was imbued with restoring the Chinese regime from the minority regime of Qing (ethnicity of Manchus). However, recent trend is extending Chinese history even to minority regimes.

3.3.A. Resource mobilization capacity

Resource mobilization is very important in modernization or development. There are many cases of unimaginable mobilization of national resources in China including the Great Wall project and Underworld Palace of Qin dynasty, the Grand Canal Project of Sui dynasty, the Great Buddha Sculpture on a mountain in Leshan of Tang Dynasty, the Forbidden City Project of Ming Dynasty, the Summer Palace Project and the Yuanmingyuan Palace Project of Qing Dynasty, and the current Three Gorges Dam Project if we name a few. All these were never imagined but were possible by massive mobilization of the

former dynasty or regime. Moreover, they were written in the history book allowing descendants to take lessons from them.

3.3.B. National pride

The Chinese are proud of their past glory of dominance in world civilization. China is one of the three origins of current civilization along with Egypt and India. While Korea is hoping to extend its history even to the mythical days tracing back to 4000 years ago, China already had a civilization of languages and relics. Sanxingdui of Sichuan province is an example of it with the Anyang museum exhibiting old Chinese character of "jiaguwen." In the case of China, she often dominated world cultures in an economic sense.

Chinese people have a strong pride of national glory of the past. Many goods have originated from Chinese people. For example, two world level museums in Xian provincial government and Taiwan are full of world treasures. In the late December of 2007, a sunken ship was retrieved by the Chinese government, which was estimated to be worth over USD 100 billion (a wrecked ship of Song Dynasty involved with trade in the South Sea). In 2007, Chinese government televised a series of "Return of China" followed by, "The Rising of Superpower (document series of 2006)," initiated by the CCTV.

The reason of break out of the Opium War was basically caused by huge trade surplus of China with European countries (imbalance of silver transfer), which represents Chinese economic activity and power around the early 19th century. Mongol China was another dominant Chinese power over the world. A publication¹³⁾ claimed that three key inventions of China worked as a basis of Western industrialization. Paper, compass, and powder were all invented in China and transferred to the West in the era of Mongol. Those were improved and used for the basis of the Industrial Revolution in the West.

3.3.C. Consensus Building Skill

Perfect information is also working in China to a certain degree. In policy decision making, China is unique in soliciting ideas both from bureaucrats and scholars. Every weekend, they are called to participate in policy soliciting activities in diversified levels of both local and

13) For example, see Jack Weatherford (2004).

central government. In Western world, it is more based on the quantitative regressions to support reality check of the new policy. Democratic concentration is praised when it works as a filtering process of the diversified ideas. In addition, overseas Chinese community provided global information and insights to the development of their home country.

3.3.D. Immigration; Overseas Reserve pool

The Chinese is one of the major Diasporas like Israeli, Indian, and Polish. As of now, Chinese immigrants are estimated to amount up to 35 million, which does not include previous migrants that have been assimilated already.¹⁴⁾ In Cuba, for example, almost 10 percent of military generals are from Chinese origin that would be possible to trace their ancestors back to Canton labor trade in the late-19th century.

Many¹⁵⁾ are talking about contributions of returned Chinese nicknamed turtles (haigui) in current Chinese speedy development. Since the late 1970s, China has sent over 1 million university graduates to continue their overseas studies despite strong objection based on brain drain arguments.¹⁶⁾ It is estimated that around 300,000 returned students are being involved in many business activities, narrowing gap between underdeveloped China and Western countries. They implanted development to China with their good educational background and experience in the overseas.

Even before this, overseas Chinese had led FDI inflow in China. For example, Singapore was really supportive to break through the bottlenecks of post Tiananmen Square Incident economic sanction of the world by organizing overseas Chinese business network.

3.3.E. Dynasty Cycle Argument:

Economists seem to be very short in coverage of time; however, some economic historians are talking about extension of time span over one century. For example Maddison (1998) argues that China had strong economy even at the end of the 18th century having global

14) Corazon Aquina and Taksin of Thailand are descendants of Chinese Diaspora.

15) Wang Ling-Chi (2001).

16) Deng Xiaoping was against brain drain argument at that time and strongly supported overseas studies of promising Chinese students in massive scale.

production and consumption. History covers at most the culture related to development economics. History is somewhat important since it changes the spirits of a nation, or even pride. It could be quite different from the countries that used to be on top and those that have never achieved such a level. It is well emphasized that many leaders like to beat model leaders.

In China, each dynasty shows three different stages of founding, peak time, and declining, which could be replaced by the next regime through new ideology or political revolt. The recent efforts by Chinese CCTV produced documentary series of "The Rise of Super Power" from the 15th century to the present. It covers the Netherlands, Spain, Portugal, Prussia, France, the Great Britain, and the US, emphasizing their leadership or events, which turned the countries into super powers. Obviously, the intention was to prepare China as another super power in the perspective of country life cycle. In 2007, "The Road to the Revival" was televised as a sequel.

It is also very interesting to check whether a country has its own vicissitudes, or life cycle. It is not well defined what Chinese history is and how long we can trace. There are a couple of ways of counting in Chinese history. According to the authentic textbooks, Emperor Qianlong set the origin of "Twenty-Four Histories" covering from Shiji to Ming. Later, History of Qing in manuscript type was added and it numbered at 25 rather than 24.¹⁷⁾

In contemporary Chinese history academia, it seems to be further extended. In Chinese history,¹⁸⁾ if we count all of the dynasties from Xia in BC 2,000, it amounts to 87.¹⁹⁾ Some dynasties lasted only a couple of years, while some lasted 879 years (Zhou). However, since the Qin dynasty started ruling as a unified nation, it is more reasonable to calculate country life cycle from the Qin dynasty. Based on this assumption, there existed 75 different dynasties in Chinese history

17) Another way to count is including "New Yuan History". Since it was formally called by then President Xu Shichang in 1921, as a result, it could be numbered at even 26 histories.

18) In the past, China was believed to start its history from Zhou dynasty. It could be extended to Xia dynasty by excavation of many historic relics.

19) It is based on the appendix of authentic Chinese Dictionary listing full names of those dynasties.

excluding “Chunchu and Warring era.” The average country life cycle was about 59.5 years, having Song dynasty as the longest one having 320 years and ROC under Sun Wen (1912) as the shortest. If we exclude the KMT regime and People’s Republic of China (PRC) in our counting regime, life distribution could be summarized as Table 3.

Out of 73 dynasties (or countries), only 13 dynasties lasted over 100 years. Most dynasties lasted between 11 to 50 years. Interestingly enough, out of 13 dynasties, 5 dynasties²⁰⁾ seemed to be led by minorities whose country life lasted for over 100 years. Qing dynasty took the second longest life, followed by the Song dynasty having lasted 296 years. In our analysis, both PBC and ROC are included. However, since those two countries still exist, we did not consider them in our life cycle calculation.

Table 3. Distribution of Country Life of China

(Unit: years)

	1-10	11-50	51-100	101-200	201-300	301-	sum
No.	11	43	6	7	5	1	73

Note: Calculation by author based on data.

Source: Chinese History Abstract

China has passed almost 30 years of her economic reform and open door policy. Nowadays, 30 years is not short to judge whether the new paradigm could sustain or extendable. In the case of PRC, she has spent already over 50 years when we count from 1949. Fifty-six years have passed since Mao Zedong declared a new republic in 1949. New leaders have also changed from founding father of Mao Zedong²¹⁾ (1949.10-1976.9), to Hua Guofeng (1976.10-1981.6), to Hu Yaobang

20) Those are Qing (296 years), Liao (210 years), West Xia (196 years), Yuan (176 years), and Jin (120 years). Judging from this fact, it could be interpreted that from the year 916 to year of 1381 China was ruled by either minorities or Han Chinese.

21) More realistically, the General Secretary of the CCP could be the key figure since the current super power is concentrated on the Chinese Communist Party. In this regard, Mao’s period could be dated back to 1945. However, PRC unified the mainland in October 1949, which is legally more plausible to count from that year.

(1981.6-1987.1), to Zhao Ziyang (1987.1-1989.6), to Jaing Zemin (1989.6-2002.11), and to Hu Jintao (2002.11-).²²⁾

In PRC, the objective environment seems relatively better than any launches of other dynasties. Even though it is hard to tell, China has a quantity of capital, technology, and talented resources than any other dynasties. In addition, China has spent at least 1/3 of its country lifetime in unifying philosophy and goals of the nation even utilizing bad experiences of Cultural Revolution.

4. Concluding Remarks

4.1. Summary

This paper applied size and history argument to interpret the current Chinese speedy development, and derived several interesting implications. First, although large size and old historic background did not positively affect the speedy economic development at all times, China at least utilized it wisely and perfectly until now. China mobilized pan-Chinese wisdom of development either helped by domestic or foreign.

Second, China has been in the process of unification for such a long period from 1840 to 1949, when war against Western countries, civil war, and war against Japan occurred. Interestingly enough, China repeats separation and unification as one set of country life time similar to a business cycle having ups and downs. China has gone through a period of spring and autumn struggles, three kingdom's battles, etc. PRC seems to be emerging as a unified strong China, after they had undergone tumultuous and chaotic periods, and current China is only in the period of youth, enlarging its size. In this process, there exists wealthy existence of precedence's sophisticated decision making experiences on complicated issues. Archive exists and is cited often. For example, Mao Zedong referred very often to the previous historic books such as the Story of the Three Kingdom's Battle or the General Mirror for the Aid of Governments (*zizhitongjian*).²³⁾ Affluent examples

22) Actually, they laid a better basis of new philosophy of modernization.

23) Japanese books.

of previous works are also good lessons, such as massive irrigation and canal construction.

Based on this hypothesis, China is still in its initial stage of growth similar to a human body. China has not undergone its *adolescent* yet, but just passed its toddlers' stage. As a consequence, China will sustain her speedy economic growth longer than we expect.

What could make an empire collapse? It could be basically through invasion of foreign powers, corruption of intrinsic reasons (natural disaster, or starvation), or even revolts exploiting these opportunities. As such, Chinese emperors were cautious of constructing irrigation systems (dujiangyan, for example, baidi in hangzhou, etc.) to feed their men. If China pursued a model of isolationistic and patriotic, it would cause and produce more international conflicts. In contrast, if it pursued cosmopolitan Tang dynasty, it would contribute to producing a number of new products in the world and stabilizing world peace. In this regards, China is hoped to be a center of creation and consumption rather than production. As old saints have already emphasized, the golden rule of balance is better emphasized in the future direction of China.

4.2. Caveat

Caveat; concluding remarks are hard to generalize since we have only few countries to apply these arguments. Possibly, it would also be very important whether China creates and provides globally accepted philosophy of Chinese-ness similar to Confucius philosophy. China is now facing a lot of complex problems of income disparity and hard landing (impending burst economy) caused by huge amount of NPL, which allude to the wreck of Chinese economic development for the next stages. These are still unanswered in our arguments.

In addition, traditional economics wisdom could not have been proven false after three decades since China took economic reforms and open door policy, which require new methodology and paradigm shift in analyzing China's economic development. Unfortunately, however, traditional textbooks do not seem to directly touch on this issue. It might be possible to conjecture that the US sensed this fact earlier and allowed China to return back to international arena by both recognizing her as a member country of the United Nations in 1971 and standing

committee member of the Security Council, and by giving a full membership of the WTO in 2001.

Salisbury (1993), who was too smart to miss this kind of simile, already wrote his excellent book of "New Emperors" in the 1990s. In his book, he described the negative aspects of small ruling parties and criticized those few rulers including Mao Zedong and even Deng Xiaoping. In short, PRC is a successor of previous dynasty, producing few interest groups almost equal to emperors, despite the slogan, 'people's republic.' However, he missed the importance of cycles of changing dynasties.

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Reflections on 10 Years of Financial Reform in China

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Ten years after the Asian Financial Crisis, China has made great strides in the areas of financial reform and openness, and these moves are the best institutional protection to prevent financial crisis.

The Asian Financial Crisis, somewhat counterintuitively, was a new start for the reformation and opening of China's financial sector. Over those ten years, China has made significant efforts in this regard.

Table 1 below shows increases in a number of important financial

Table 1. Selected Financial Indicators for China, 1996 and 2006

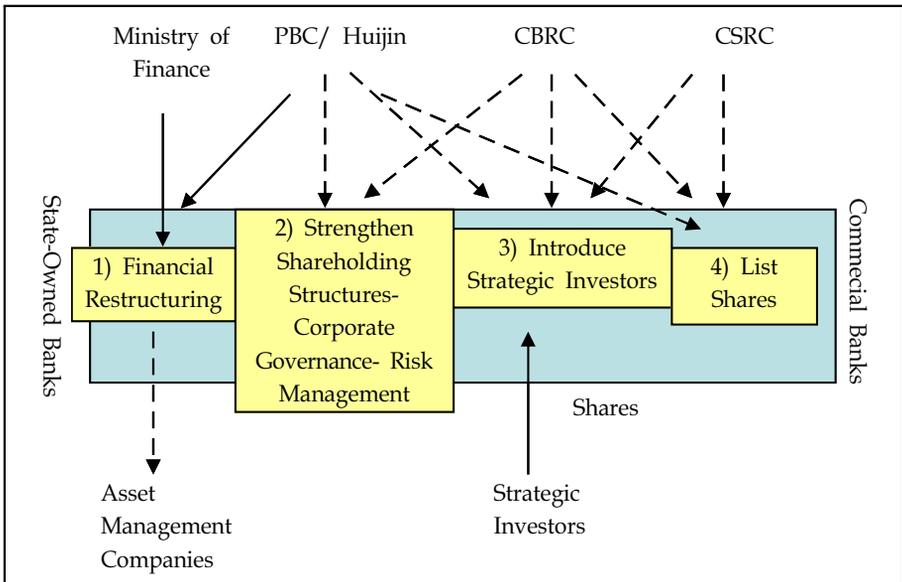
	1996	2006	Rate of Increase (Times)
Loans from Financial Institutions	RMB 6.12 Trillion	RMB 23.83 Trillion	3.90
Deposits in Financial Institutions	RMB 6.86 Trillion	RMB 34.80 Trillion	5.07
Urban and Rural Household Savings Deposits	RMB 3.85 Trillion	RMB 16.16 Trillion	4.20
Foreign Exchange Reserves	USD 105 Billion	USD 1.0663 Trillion	10.16
Security Market Financing	RMB 23.53 Billion	RMB 157.224 Billion	6.68
National Insurance Premium Income	RMB 75.6 Billion	RMB 564.1 Billion	7.46
GDP	RMB 6.78 Trillion	RMB 20.94 Trillion	3.09

indicators since the time of the Asian Financial Crisis, all of which have significantly outpaced China’s GDP growth rate. Altogether, the processes of monetarization and capital market construction, over the past ten years, have shown higher growth rates than China’s GDP.

1. Reform of State-Owned Commercial Banks

Over the past ten years, China’s top priority has been bringing about the reform of state-owned commercial banks. Ten years ago, everyone knew that China’s commercial banks were riddled with problems, and there was a sense of potential crisis. At that time, the Chinese government gave an impetus to the reform of state-owned commercial banks. The process of reform is described in the chart below.

Figure 1. The Path of Reform of Chinese State-Owned Commercial Banks



Note: “PBC/ Huijin” refers to the People’s Bank of China (central bank) and the Central Huijin Investment Company Ltd, “CBRC” to China Banking Regulatory Commission, and “CSRC” to China Securities Regulatory Commission.

As of writing this paper, three of the four largest state-owned banks, the Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), and Bank of China (BOC), have undergone financial restructuring and have listed their shares. The high list prices of these three banks at the current time, listed in both Hong Kong and Shanghai, reflect the recognition of the solidity of banking reform by investors. A simple appraisal of the post-reform status of these three banks is given below.

First, there has been robust growth in revenue and profit. In 2006, operating income in ICBC, BOC, and CCB were RMB (renminbi) 181.638 billion, RMB 148.378 billion, and RMB 151.593 billion, respectively.

Second, profitability in all aspects has increased. In 2006, the return-on-assets ratio in ICBC, BOC, and CCB rose by 0.71%, 0.96%, and 0.92% respectively.

Third, the quality of assets continued to improve. In 2006, the non-performing loan ratio in ICBC, BOC, and CCB was 3.79%, 4.04%, and 3.29%, respectively; provision coverage rates were 70.6%, 91.3%, and 82.2%; and capital adequacy ratios were 14.05%, 13.59%, and 12.11%, respectively, all in line with international standards.

Another type of reform is governance structure reform. Broadly, governance structural reform has been more difficult, but over the past few years, much effort has been expended, with the main bulk of effort coming in the following areas:

- 1) Diversification of property rights and the introduction of strategic investors;
- 2) Introduction of transparency, in which the three main banks have achieved market transparency requirements, established financial indices, and instituted annual reports;
- 3) Formulation of development strategies to maximize the value of held shares;
- 4) Establishing a scientific decision-making system, internal control mechanisms, and risk management systems;
- 5) Integration of operations and processes, promoting structural reform, and business process reengineering;
- 6) Establishing a standardized human resources management system and incentive and restraint mechanisms;
- 7) Improving accounting, and financial and information disclosure

- systems; and
- 8) Strengthening the building of information technology to enhance comprehensive service functions.

2. Reform of Foreign Reserve Management Structures

A second top reform priority has been that of the Chinese yuan, also known as the renminbi (RMB). In the period after the Asian Financial Crisis, China discovered the importance of instituting a proper exchange rate system, so reforms of its exchange rate and foreign reserve mechanisms were pushed forward. These reforms include the periods both before July 2005, and after. However, we should note that the important starting point for exchange rate reform really began in July 2005. An important aspect of this reform is that after this point, the RMB exchange rate policy was no longer pegged to the dollar, but rather to a basket of currencies.

Furthermore, after that period, the RMB has also made great progress towards becoming convertible. People elsewhere have discussed Qualified Domestic Institutional Investors (QDII) and Qualified Foreign Institutional Investors (QFII), both of which are concrete progress on the road to currency convertibility. By the end of 2006, following the International Monetary Fund's (IMF) classification of the seven major categories of 43 different types of capital transactions, China has already achieved "convertibility" in 11, or 25.6% of the total; "minor restrictions" in 11, or another 25.6% of the total; "moderate restrictions" in 18, or 34.9%; and "strict control" in only 6, or 13.9% of the total. These structures demonstrate that the convertibility of the RMB has been progressing quickly. This aspect has been moving very quickly, as clarifications and laws, especially those regarding QDII have recently begun to be promulgated by the government authorities.

The critical part of the RMB exchange rate reform has been implementing a managed floating exchange rate system in which based on market supply and demand, adjusts in reference to a basket of currencies. The daily fluctuation range has also been expanded recently. The graphs below show the trends of the RMB-Dollar and RMB-Euro exchange rates up to the present. Since July 2005, the RMB has, on average, risen about 4% on the dollar per year.

Table 2A. US Dollar-RMB Exchange Rate, 8/1997-8/2007

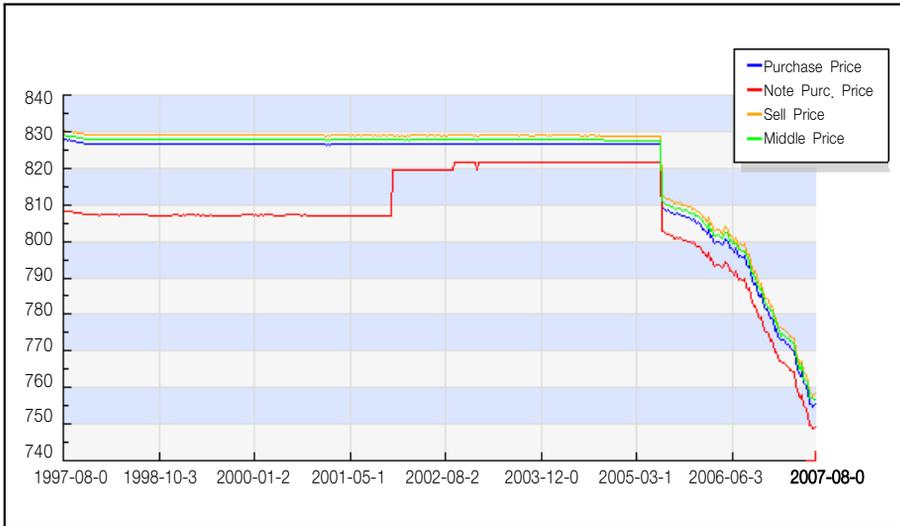


Table 2B. Euro-RMB Exchange Rate, 1/1999-8/2007



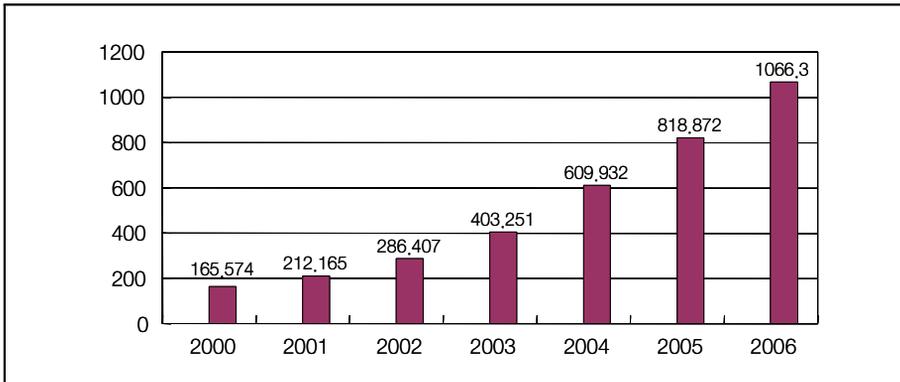
During the financial crisis, many people were very worried that the RMB would be devalued. Many representatives from foreign central banks met with China, worried that the RMB might not be devalued. However, now, the same people are hoping for the RMB to rise in value. It is quite odd for people first telling China not to devalue its currency, and then, telling China to make it rise in value.

After the Asian Financial Crisis, China’s stock of foreign reserves was quite low, but in ten years time, stocks have risen tremendously. Following the foreign exchange management office statistics, up to the end of the second quarter of 2007, reserves were already at USD 1.3 trillion. Regarding how to spend these reserves, China is actively exploring different channels and ways to make the best use of them.

The above analysis covers a number of reforms in China’s foreign exchange structures, of which the two most important aspects are to further upgrade the exchange rate formation structures for the RMB and to reform the management systems of foreign reserves. The Chinese government has already made clear that it will establish its own investment company to manage these funds.

Table 3. Foreign Exchange Reserves of China

(Unit: billions of US Dollars)



3. Strengthening Financial Oversight

The third important aspect of reform has been the strengthening of

financial oversight. Following the Asian Financial Crisis, China placed high degree of attention to the importance of financial oversight. This importance manifested itself in the following ways:

- 1) Set up a division of tasks in the supervisory system. The duties of supervising banks, securities, and insurance companies were taken away from the People's Bank of China and separated into insurance, security companies, and banking regulatory agencies, creating the China Insurance Regulatory Commission (CIRC) and the China Banking Regulatory Commission (CBRC). Although the establishment of the China Securities Regulatory Commission (CSRC) preceded the events of 1997, it received significant regulatory powers over security companies only after 1998. Up to today, these regulatory structures have not undergone much change from that time.
- 2) China's financial oversight is becoming more and more in line with international standards. For example, China's accounting mechanisms and external auditing structures are all converging to the international ones. Whether it is foreign exchange oversight, banking oversight, or securities oversight, China has realized the real importance of reaching international accepted levels since the breakout of the Asian Financial Crisis. Indeed, if one were to pay attention to the publications and website of the "Big 3" regulatory agencies, one would find that they are now engaging in more and more international cooperation, and their current regulatory conceptions and detailed standards are also growing in line with international ones, which is an important movement achieved since following the Asian Financial Crisis.
- 3) On the idea of cooperation, China is not only widening cooperation with the outside world, but further measures of cooperation among China's different agencies are also being discussed, which is being referred to as a "3+2" framework. This framework includes the three regulatory commissions plus the central bank and the Ministry of Finance.

4. Major Development of Capital Markets

The fourth top priority of reform has been a vigorous development of capital markets. One can say that the decade after the Asian Financial Crisis has also been the decade of the most substantive development of China's capital markets. From looking at the market values of listed companies, it can be seen that the stock market has grown extremely rapidly, eclipsing the GDP growth rate, into a position that is leaps and bounds ahead of where it was only a few years earlier. The reform of capital markets has been occurring in the following areas:

- 1) The first area of reform is the most important one: that of eliminating ownership right differences. By now, this reform is basically already completed. Previously, due to ownership regulations, stocks in China were divided into shares that could be circulated and shares that could not. Now, this distinction has been essentially cancelled.
- 2) Reform of Chinese security company governance has been completed. After the financial crisis, China's security companies were for a time in dire straits, but they have undergone supervision strengthening and are shifting to more market-based principles. The current situation is far better than it was earlier, and companies have basically escaped the difficult period (also partially because of the booming stock market). In the first half of 2007, profits were very high in security companies, which was good news for China.
- 3) There has been revision of company laws and securities laws. In 2005 and 2006, China performed a number of basic improvements to these two laws, and also made the requisite changes to bring the legal framework in line with international standards.
- 4) Issuing initial public offering structures have also been reformed. The original management system has undergone complete changes, and now, it takes a simple procedure to issue an IPS, and is also much quicker than before.
- 5) There is preparation to launch stock index futures. Since the establishment of a financial futures trading institute, there has been a large amount of work done in this field.
- 6) The last area to mention is the opening up of capital markets.

Recently, many have noticed that in the context of the China-U.S. Strategic Economic Dialogue, the Chinese government has already agreed to continue taking new steps for the greater opening of its capital markets.

Capital market reforms also include debt markets. Currently, China's domestic bond market reform has already established a basic framework. In terms of bond regulatory structures, the roles of the Development and Reform Commission and the CSRC will undergo some changes to continue perfecting the management system for bonds.

Government and public bond markets still need reforms. Just recently, there was an announcement that the originally divided bond repurchasing system has already completed its conversion, and the new government bond market brought changes in the custody and settlement systems. The inter-bank and bourse bond markets, though originally separate, are now being combined. This is a very important reform, for a number of conflicts of interest that existed in a few departments are being removed.

Financial futures' aspect also needs to be discussed. Ten years ago, because of the Asian Financial Crisis, at the first mention of "derivatives," people became very frightened. However, during the past decade after the crisis, opinions towards derivatives have begun to change, as people have become well aware of the importance of derivatives to hedge against risk and disclose true prices. Also, there has been the creation of a financial futures exchange in Shanghai. Thus, many previously held conceptions have changed, especially with the knowledge that it is only through innovation and reform that there can be an improvement in reducing risk. This change in attitude has occurred for ten years. A decade ago, upon any discussion of financial derivatives, there would have been immediate reaction of avoidance and shutting down of such ideas, but things are continuing to evolve.

China has also made a number of commitments, which includes ownership structure requirements, financial products, and a number of others fields to further open up capital markets to foreign securities companies by the end of 2007. In the time after the Asian Financial Crisis, the most notable aspects of China's financial reform have been these four. From this discussion, one can see that for the past ten years, China's financial reforms have progressed extremely rapidly.

Higher Education Reform in China: Market Orientation and Institutional Response

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1. Introduction

To achieve economic development, smooth supply of well educated workers is emphasized in many cases. In China, education was put forward as the policy priority from 1998. Fast economic growth has driven fast demand for higher education. In addition, Chinese universities have experienced a rapid expansion of human and physical capitals. Under this condition, engineering, business managements, finance, and economics have become the most popular degree courses. Moreover, the increasing importance of Western textbooks, the increasing role of returned scholars, and the growing markets for Master of Business Administration (MBA) are other changing patterns of higher education in China

2. Major Changes in Universities

2.1. Demand Shift

The fast economic growth of China has created huge and fast-growing demand for higher education. In China, universities and colleges recruit students only through *national entrance examination*, which has been in place annually since 1977. The number of entrants in China's universities and colleges is consistently increasing over time. Also, there has been a drastic increase in the number of graduate students since

1985. However, the increase rate of the number of teacher is much lower than the increase rate of the number of students. Thus, teacher/student ratio in China has continually declined since 1985.

Figure 1. Undergraduate Student Enrollments in China's Universities and Colleges

(Unit: ten thousand persons)

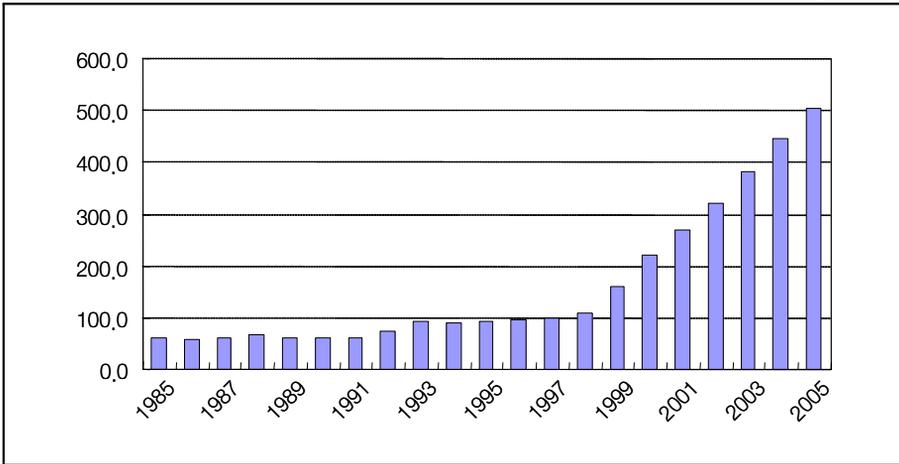


Figure 2. Graduate Students Enrollments in China Since 1985

(Unit: thousand persons)

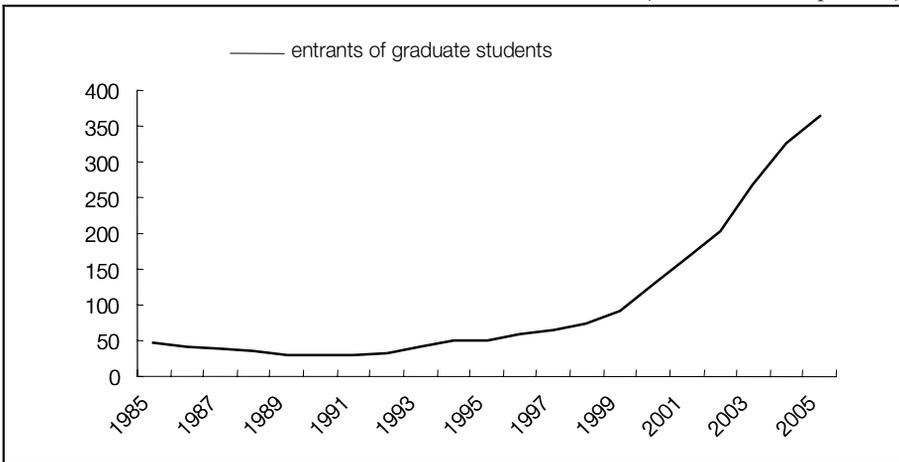


Figure 3. Declining Teacher/Student Ratio in China Since 1985

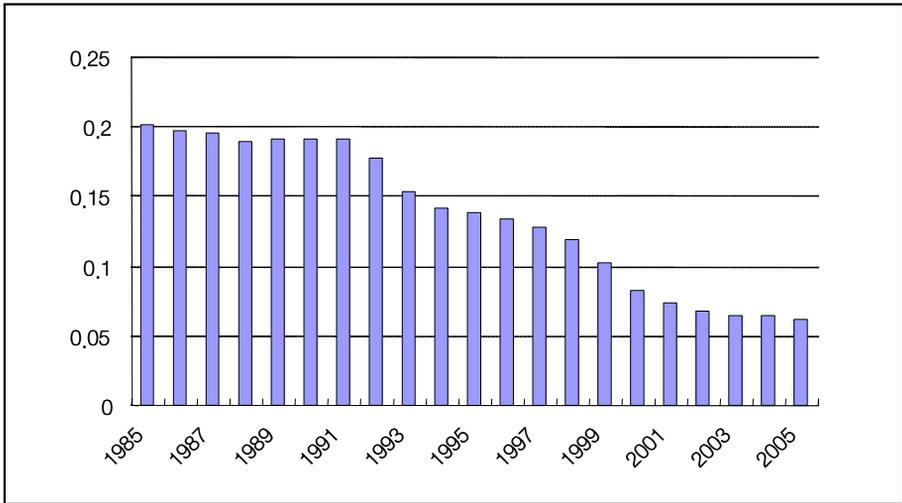
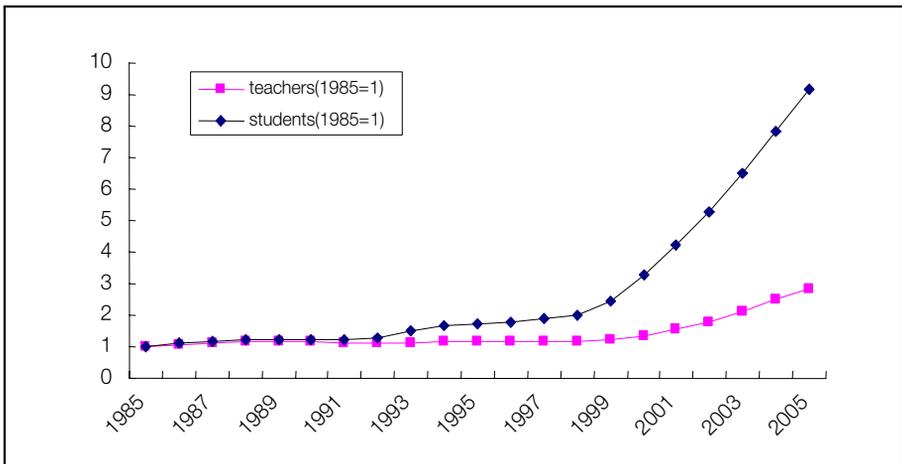


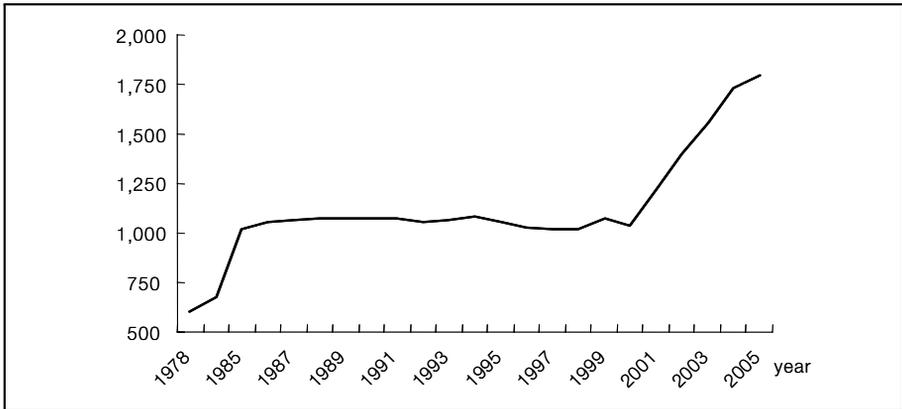
Figure 4. The Rising Number of Teachers and Students in China's Universities and Colleges



2.2. Supply Side

From the supply side, Chinese universities have experienced a rapid expansion of human and physical capitals, especially since the late 1990s. Therefore, the central government sponsored and financed about 100 key universities (well known and major), while the local governments supported the remaining other universities. Under this strong support from both central and local governments, the total number of universities and colleges in China has increased from about 1,000 to about 1,800 by the end of the 1990s.

Figure 5. The Number of Universities and Colleges in China Since 1978



However, at the same time, there have been numerous cases of universities merging, which have reduced the total number of universities. The government has encouraged such mergers. The typical case is that of a comprehensive university merger between a professional university and a college.

2.3. Subjects of Study

Business management and economics have become most popular degree courses in China. About 60% of students studying in universities and colleges are students of engineering, business management, and economics. Especially, the number of students majoring in engineering,

economics and management, science, and law has drastically increased every year. Currently, the most popular subject preferred by the largest number of students is engineering, followed by economics and management, science, and law.

Figure 6. Number of Students Studying Different Majors Every Year in China

(Unit: thousand)

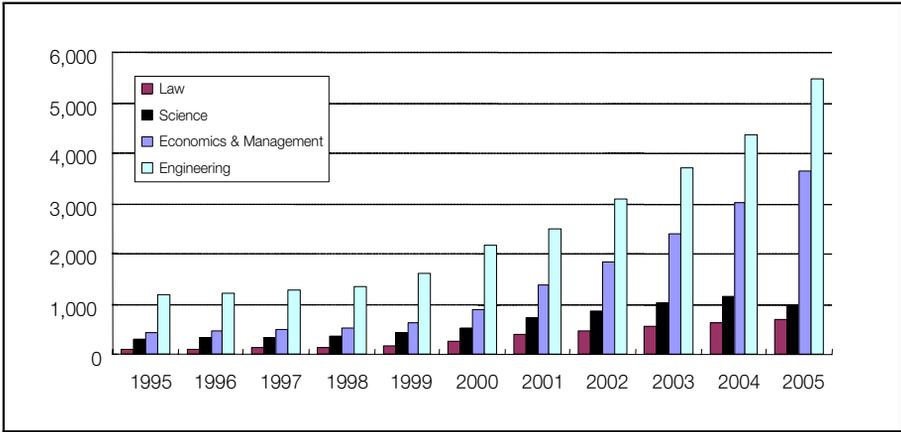
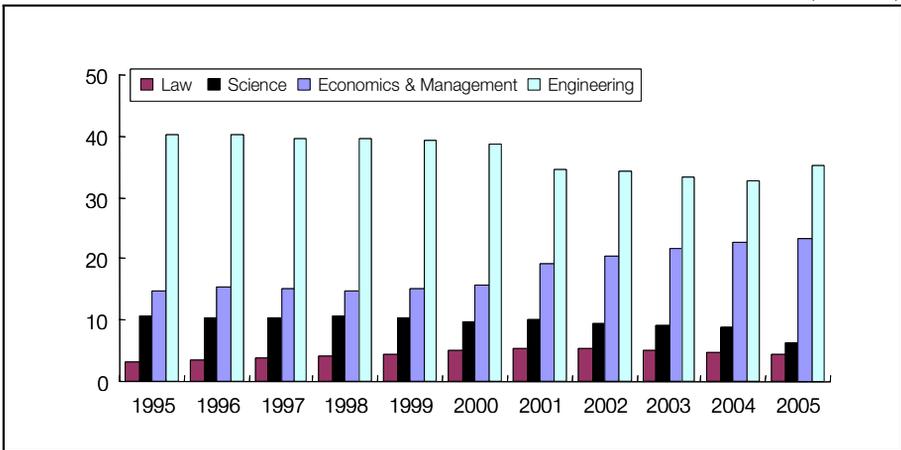


Figure 7. Distribution of Majors among Students Studying at China's Universities and Colleges

(Unit: %)



The main reason for the preference for engineering is that the rapid expansion of the Chinese economy has resulted in a growth of job opportunities in fast-growing industries such as electronics, construction, automobiles, heavy industries, FIEs, etc., providing incentives to the faculty and students in choosing engineering degrees. On the other hand, the rising demand for a degree studying in business and economics is partially accounted for by the increasing importance of financial and business sectors and the rising expectations of good-pay.

3. Specific Cases of Education Reform

3.1. Returned Scholars (Haigui)

The number of returned scholars from overseas including returned professors and Ph.Ds is on a rapid rise. Currently, most deans of economics in China's key universities are staffed by returned scholars.

The China Center for Economic Research (CCER) at Peking University, which was founded in August 1994, institutionalized a new teaching and research model, which is able to attract domestic and international resources as well as bringing together a group of Chinese economists who have received rigorous academic training abroad. In addition, many universities such as Shanghai University of Finance and Economics (SUFU), Peking University, Tsinghua University, Fudan University, Shanghai Jiaotong University, Xiamen University, etc., initiated faculty recruiting programs in economics and business attracting new teachers with overseas education backgrounds. For instance, in the last three years, SUFE hired teachers from Harvard, Yale, Berkeley, Cornell, and Oxford, and offered competitive salary.

There are two kinds of returned scholars; permanent and part-time contracts. The benefits to returned scholars include lump-sum subsidy for housing, competitive salary, availability of special research grants, and appointment of deans. The number of students going to study abroad and returning to China has continually increased with dramatic rise in the 21st century.

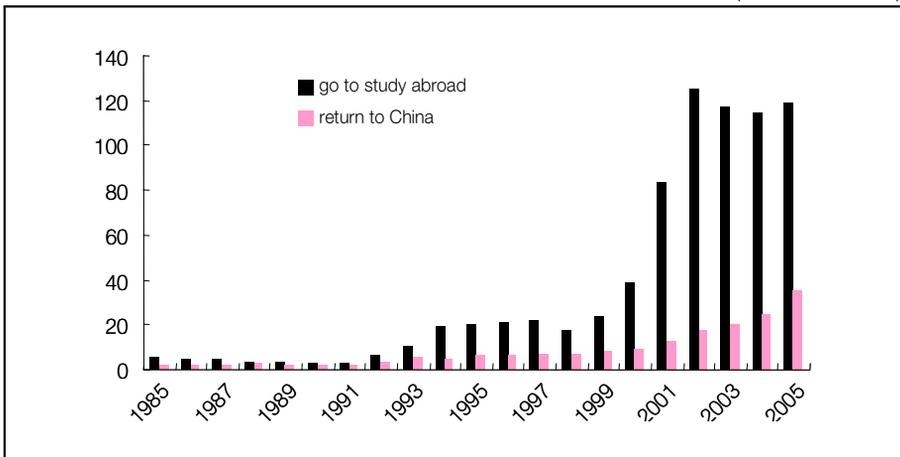
3.1.A. An Offer from Fudan as of December 5, 2007.

The School of Economics, Fudan University, seeks to fill positions

at the assistant, associate, and full professor level at the beginning in the academic year from 2008 to 2009. Applicants should have a Ph.D. in economics (or be near completion of the doctorate). A commitment to excellence in research and publication in international journals is a prerequisite. The position offers a competitive salary (from RMB 250,000) plus necessary research funds. To ensure full consideration, applications should be received by regular mail by December 28, 2007. Candidates on a shortlist will be interviewed at the AEA Annual Meetings in New Orleans, January 2008.

Figure 8. Number of Students Going to Study Abroad and Returning to China

(Unit: thousand)



3.2. Economics Textbooks in China

Since the mid-1980s, western textbooks of economics were introduced by Shanghai United Press to classrooms on campus. In 1995, Renmin University Press initiated a large scale translation series of economics. Both Chinese and English versions of western textbooks of economics, finance, and business managements are now widely used in China. For example, at Fudan University, both Chinese and English versions of microeconomics by Pindyck and Rubinfeld, are used for undergraduate studies. Chinese version of intermediate and advanced microeconomics

by H.R. Varian is used for master and Ph.D programs in economics, respectively.

3.3. Growing Markets for MBAs

MBA education has been increasingly becoming a better choice for both senior business leaders and young generation of business-oriented students. China's MBA education has only about 15 years of history so the Ministry of Education in Beijing has enforced strict regulations over MBA educations. Most Chinese key universities run MBA programs jointly with foreign universities; thus, the tuition for MBAs is rising quickly. Tuition for EMBA program costs over USD 45,000. Rising stars of two new school of business are CEIBS in Shanghai and Cheung Kong GSB in Beijing.

CEIBS, a governments-based joint venture, is the leading Shanghai-based international business school, which was established in 1994. Based on its own campus in Pudong, Shanghai, the school is a non-profit joint venture established under an agreement between MOFTEC and the European Commission. CEIBS receives financial support from the Municipal Government of Shanghai and the European Union. CEIBS has earned an excellent reputation as the leading professional management school in China, and as one of the highest ranked business school in the Asia-Pacific region. Thirty faculty, and close to one hundred visiting faculty every year provide for a genuinely multinational education and research environment. From 2004 to 2007, CEIBS was ranked the best of Asia in Financial Times' global MBA rankings. Also, it took 17th and 11th worldwide in Financial Times' global EMBA rankings in 2006 and Financial Times' global MBA rankings in 2007 respectively.

Cheung Kong Graduate School of Business was founded in Beijing in November, 2002 by Asia's most successful entrepreneur Mr. Li Ka-shing. Cheung Kong Graduate School of Business is China's first private, non-profit, and independent business school. The mission of Cheung Kong GSB is to generate world-class insight on management theory and practice, and to develop world-class business leaders for China and beyond. Headquartered in Beijing with campuses in Shanghai and Guangzhou, Cheung Kong GSB offers MBA, EMBA, and Executive Development (EDP) Programs. Cheung Kong GSB is a new

generation business school for a new generation of business leaders.

3.4. University-Run Business

There are more than 5000 university-run companies now. About 30 are listed companies. Most university-run or university-affiliated enterprises were founded after 1990s. These companies include those that are fully owned by the university or shareholding companies, which started with university money but ended up with fuzzy ownership. The sales revenue in 2006 was about RMB 97 billion. There are about 40 university-based science parks in China and one third of China domestic patents were granted to universities. University-run enterprises (UREs) are unevenly distributed because top 10 universities accounted for 55% of the sales of UREs. The Top 8 universities are in the order of Beijing University, Tsinghua University, Fudan University, Nanjing University, Zhejiang University, Xian Jiaotong University, Shanghai Jiaotong University, and Nankai University.

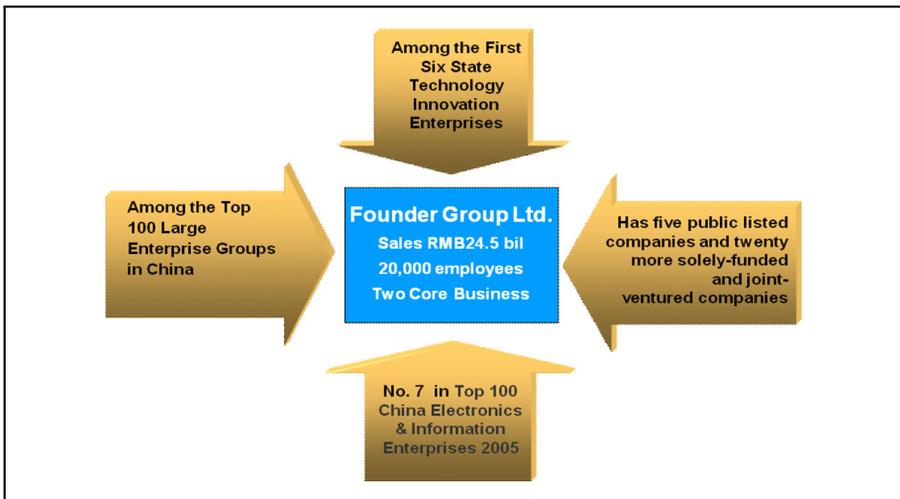
State Council Policies clarify ownership and normalize the mechanism of injection and withdrawal of university property rights. Also they remove universities' names from that of URVBs, define boundary between faculty members and URVBs' employees, and explore MBO possibility and new incentive mechanism.

Looking at the development of Founder, in 1986 and 1987, it started computer sales, and project and product selection. Also it transferred technology and turned laser typesetting technology into a useable product. Between 1988 and 1992, it launched the production of the Chinese laser typesetting system and developed the Founder SUPER Chinese character board, which accounted for 50% of the market. It also opened the first overseas branch. The Founder had expanded its business area into system integration from 1993 to 1999 and Founder computers and monitors were released at that time. After this, the Founder (Hong Kong) Co., Ltd. was listed on the Hong Kong stock market whilst "Founder Tech" was listed on the Shanghai stock market. From 2000 up to now, Founder entered the area of broadband. It ranked number 2 in computer production and sales in China and Index Company. The Apabi DRM copyright protection system won the Award for Major Technological Inventions of the Ministry of Information Industries. Founder Yinjie Digital Printing System is the

most advanced Chinese language printing system in the world and the Founder printing software system was successfully applied to 300 Japanese newspapers. Founder Apabi eBook occupies over 80% market share in China's provincial public libraries. Second core businesses are Pharmaceutical and Healthcare, which received the award for "Top 10 Chinese Innovation Brands" and "The Outstanding Enterprise in 20-year IT Industry" in 2005.

Beida Founder is one of the Top 100 largest enterprise groups in China as well as one of the first six state technology innovation enterprises. It ranked 7th in Top 100 of China's electronics and information enterprises in 2005 and it hit the record of RMB 24.5 billions with 20,000 employees. Beida Founder has five public listed companies and twenty more solely-funded and joint-ventured companies.

Figure 9. Beida Founder



The Structure of Trade between China and Korea

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1. Introduction

It has been 15 years since China and Korea have built a diplomatic relationship. After 1992, Korea and China have accomplished rapid improvement in economic relations due to the complementary industrial structure, geographical adjacency, and cultural similarity. Trade between the two countries has increased enormously as shown in Table 1. Korean export to and import from China have showed higher increase rates compared to the overall increase rate in trade. Korean export to China has increased by over 26 times during the last 15 years. It has also increased by 3.2 times during 2002 and 2006, which is much higher than that of the U.S. (2.1 times), Japan (2.2 times) and Chinese Taipei (2.3 times). However, the increase rate of Korean export to China (12.2%) was lower than that of overall Korean export (14.4%) in 2006. Despite this, China remains one of the most important trade partners to Korea, just as how Korea remains an important partner to China. In 2006, Korea was ranked second in Chinese import after Japan.

Korea showed a trade surplus with China after 1993 even though it decreased in 1999, 2001, and 2006. Korean trade surplus with China in 2005 and 2006 exceeded Korean total trade surplus. In 2006, Korean total trade surplus was about USD 16.1 billion and Korean trade surplus with China was about USD 20.9 billion. However, during first half of 2007, Korean total trade surplus was about USD 8.06 billion and Korean trade surplus with China was about USD 8.04 billion. There

Table 1. The Share of Trade with China in Korean Trade

(Unit: Million USD)

	Total Export (A)	Export to China (B)	Share (B/A) %	Total Import (C)	Import from China (D)	Share (D/C) %	Trade Balance	Change %
1991	71,870.1	1,002.5	1.4	71,870.1	1,002.5	1.4	-2,438.0	
1992	76,631.5	2,653.6	3.5	76,631.5	2,653.6	3.5	-1,071.3	
1993	82,235.9	5,151.0	6.3	82,235.9	5,151.0	6.3	1,222.3	
1994	96,013.2	6,203.0	6.5	96,013.2	6,203.0	6.5	740.1	-39.4
1995	125,058.0	9,160.9	7.3	125,058.0	9,160.9	7.3	1,736.6	134.6
1996	129,715.1	11,377.1	8.8	129,715.1	11,377.1	8.8	2,838.5	63.5
1997	136,164.2	13,572.5	10.0	136,164.2	13,572.5	10.0	3,455.6	21.7
1998	132,313.1	11,944.0	9.0	132,313.1	11,944.0	9.0	5,460.0	58.0
1999	143,685.5	13,684.6	9.5	143,685.5	13,684.6	9.5	4,817.9	-11.8
2000	172,267.5	18,454.5	10.7	172,267.5	18,454.5	10.7	5,655.8	17.4
2001	150,439.1	18,190.2	12.1	150,439.1	18,190.2	12.1	4,887.5	-13.6
2002	162,470.5	23,753.6	14.6	162,470.5	23,753.6	14.6	6,353.8	30.0
2003	193,817.4	35,109.7	18.1	193,817.4	35,109.7	18.1	13,200.6	107.8
2004	253,844.7	49,763.2	19.6	253,844.7	49,763.2	19.6	20,178.3	52.9
2005	284,418.7	61,915.0	21.8	284,418.7	61,915.0	21.8	23,266.7	15.3
2006	325,464.8	69,459.2	21.3	325,464.8	69,459.2	21.3	20,902.5	-10.2

have been some changes in trade structure in 2007.

China has been the No. 1 exporting country for Korea after 2003. In 2003, the amount of Korean export to China and that of the U.S. in the total Korean export was 18.1% and 17.6%, respectively and in 2006, 21.1% and 13.2%, likewise and the difference is being widened. After 2004, China has been the No. 1 trading partner (export and import) for Korea. Japan has been the No. 1 importing country for Korea until 2006 whilst China has been the second largest importing country after 2004. However, the difference has decreased and after the first quarter of 2006, the import from China exceeded that of Japan. This means that

the importance of China in Korean trade has increased and will continue to do so in the future.

In 2007, the increase rate in the import from China exceeded that of the export to China. As we can see in Table 2, during the first half of 2007, Korean export to China was worth about USD 38.0 billion, which was an increase of 16.6% compared to the same period in 2006. Korean import from China was USD 29.9 billion, which was an increase of 33.6% compared to the same period in 2006.

Table 2. Korean Trade with China in 2007

	1/4 2007		2/4 2007	
	Amount (Million USD)	Same period prev. % change	Amount (Million USD)	Same period prev. % change
Export	18,270.7	18.9%	19,686.0	14.6%
Import	14,096.4	32.5%	15,826.8	34.5%

The Korean trade surplus with China in 2007 is currently decreasing and this trend is expected to continue. The increase rate of the Korean export to China was over 40% during 2003 and 2004. However, it was 24.4% in 2005 and 12.2% in 2006. In Northeast Asia, the trade structure shows a Korean trade surplus with China, a Chinese trade surplus with Japan and a Japanese trade surplus with Korea, which has not changed during the last 15 years. However, this trade structure is changing. Therefore, the purpose of this paper is to investigate the reasons behind the change in trade structure between Korea and China and try to find the policy implication in order to build a more concrete economic relationship between the two countries for mutual benefits.

2. Change in the Trade Structure between Korea and China

In addition to the change in the overall trade structure between Korea and China that we have seen in Chapter I, there have also been changes in the components of trade between the two countries. Korean key export products changed from light industry goods to heavy

industry, IT industry, machinery, and automobile goods as shown in Table 3. The increase in production by multinational companies in China introduced the import of Korean parts and components. Increase in China's demand for these products due to the economic growth is another reason for this change.

Table 3. Top Ten Products of Korean Export to China

	1996	2001	2006
1	Synthetic resin	Articles of petroleum	Semiconductor
2	Articles of petroleum	Synthetic resin	Articles of petroleum
3	Leather	Steel flate-rolled products	Computer
4	Steel flate-rolled products	Electrontube	Wireless communication apparatus
5	Man-made staple fiber	Computer	Synthetic resin
6	Man-made filament fabrics	Leather	Synthetic fiber lower material
7	Textile machinery, chemical instruments	Synthetic fiber lower material	Flat display and sensor
8	Other fabrics	Other fabrics	Steel flate-rolled products
9	Articles of paper	Wireless communication apparatus	Parts of automobile
10	Knitted fabrics	Audio apparatus	Optical instrument

Korean key import products changed, too. They were agricultural, fishery, and light industry goods in 1996. However, they are now IT industry and electronic goods in 2006. The increase in the competitiveness of the Chinese products is the main reason behind this change. Intra industry trade plays a major role in increasing trade between Korea and China. During the first half of 2007, the imports from China

increased by 33.6% and were much higher than the exports to China (16.6%). Therefore, the trade surplus of Korea with China decreased by USD 2.1 billion compared with the first half of 2006. The market share of Chinese products in Korea has increased from 8.0% in 2000 to 17.6% in the first half of 2007.

Table 4. Top Ten Products of Korean Import from China

	1996	2001	2006
1	Garments/clothes (441)	Garments/clothes (441)	Computer (813)
2	Alloy iron, pig iron, or scrap iron (618)	Computer (813)	Semiconductor (831)
3	Crude petroleum (131)	Coal (132)	Garments/clothes (441)
4	Coal (132)	Audio apparatus (822)	Steel flate-rolled products (613)
5	Man-made staole fiber fabrics	Semiconductor(831)	Electron application apparatus(814)
6	Articles of petroleum (133)	Fine chemical material (228)	Wireless communication apparatus (812)
7	Semi-finished products of steel or other products of steel	Fishes (041)	Aluminum (621)
8	Fine chemical material (228)	Vegetable matter (013)	Coal (132)
9	Steel flate-rolled products (613)	Static electric equipment (842)	Fine chemical material (228)
10	Audio apparatus	Articles of petroleum (133)	Static electric equipment (842)

In 2006, raw material accounted for 40.8% of Korean export to China. 51.7% of the Korean export was capital goods. Consumer goods were 7.4% of the Korean export to China. In the import side, 38.1% of the import from China was raw material. Capital goods and consumer goods accounted for 38.6% and 23.3% of import from China, respectively.

After 2000, the vertical international specialization happened in Korea and China due to the increase in trade in parts and components between the two countries. However, the increase in the production of parts and components in China made changes in this trade structure. The share of Korean parts and components in Chinese import of those products decreased. The share of Chinese parts and components in the U.S. market increased from 5.7% in 2000 to 15.9% in 2006.

Table 5. Korean Export to and Import from China in 2006 by Industry

	Export	Import
Primary Industry	0.8%	12.8%
Light Industrial product	7.5%	16.7%
Heavy Industrial product	91.7%	70.4%
IT Goods	31.2%	24.2%
Others	60.5%	46.2%

As we can see in Table 6, the share of intermediate goods has decreased and that of final goods has increased. The decrease in the share of intermediate goods is mainly because of the decrease in the semi-finished goods. However, in recent years, the export of parts and components could not compensate for the decrease of semi-finished

Table 6. The Trend of Korean Export to China by Processing Level

(Unit: %)

	1992	1998	2001	2004	2005	2006
Primary Goods	0.5	0.3	0.4	0.6	0.6	0.7
Intermediate Goods	88.7	85.0	83.4	79.7	82.0	79.3
Semi-finished Goods	84.0	73.7	64.0	43.9	42.0	43.3
Parts and Components	4.7	11.2	19.5	35.8	40.0	35.9
Final Goods	10.8	14.7	16.2	19.7	17.3	20.0
Capital Goods	7.3	9.3	11.1	16.2	14.0	16.7
Consumer Goods	3.5	5.5	5.1	3.5	3.3	3.3

Source: Lee, Seungsin(2007), The Change in Trade Structure between Korea and China and Its Implication, China Issue Report (2007-28).

goods. In 2006, the share of semi-finished goods increased by 1.3% points and the share of parts and components decreased by 4.1% points. The increase of the share of final goods in the share of Korean export to China is caused mainly by the increase in the capital goods. The prosperous condition in the Chinese economy was the main reason for the increase in the Korean export of capital goods to China. In 2006, the export of capital goods increased by 26.9%. The share of consumer goods shows a stable condition of about 3%, but the amount of consumer good export increased from USD 370 million in 1992 to USD 8.51 billion in 2006. Increase rate of the export in every category except capital goods decreased in 2006.

The import structure of Korea has changed, too. The share of primary good decreased from 37.1% in 1992 to 6.3% in 2006. This will continue because of the Chinese government's restrictions on the export of natural resources. The share of final goods increased from 12.6% in 1992 to 36.2%. Parts and components and capital goods are the products which show rapid growth in the share of Korean imports from China.

Table 7. The Trend of Korean Imports from China by Processing Level
(Unit: %)

	1992	1998	2001	2004	2005	2006
Primary Goods	37.1	20.3	12.9	9.1	9.4	6.3
Intermediate Goods	50.3	52.4	48.9	52.8	54.7	57.4
Semi-finished Goods	48.6	38.8	32.0	34.2	35.3	36.5
Parts and Components	1.6	13.6	16.9	18.6	19.4	20.9
Final Goods	12.6	27.2	38.2	38.1	35.8	36.2
Capital Goods	2.6	11.6	14.5	18.4	18.5	18.7
Consumer Goods	10.0	15.6	23.6	19.8	17.3	17.5

Source: Lee, Seungsin (2007), The Change in Trade Structure between Korea and China and Its Implication, China Issue Report (2007-28).

The trade surplus in the intermediate goods and capital goods has increased. However, as we mentioned above, in 2006 trade surplus in intermediate goods decreased. This is mainly due to the increase in the trade deficit in steel and decrease in the trade surplus in semiconductors

caused by the development of China in these sectors. The trade deficit in the primary goods and consumer goods has also increased. The increase in the trade deficit in the apparel and electronics is the main reason for this increase.

**Table 8. The Trade Balance between Korea with China
by Processing Level**

(Unit: Million USD)

	1992	1998	2001	2004	2005	2006
Primary Goods	-1,368	-998	-1,647	-2,396	-3,250	-2,557
Intermediate Goods	480	2,558	8,666	24,055	29,635	27,170
Semi-finished Goods	416	2,297	7,375	11,750	12,365	12,381
Parts and Components	64	261	1,291	12,305	17,270	14,789
Final Goods	-184	-4	-2,124	-1,472	-3,108	-3,699
Capital Goods	97	353	91	2,627	1,514	2,520
Consumer Goods	-281	-357	-1,644	-4,100	-4,622	-6,219

Source: Lee, Seung-sin (2007), The Change in Trade Structure between Korea and China and Its Implication, China Issue Report (2007-28).

3. Policy Implication

The Chinese economy has shown rapid growth. As we can see in Table 9, the growth rates have been over 10% in recent years. China is expected to have the third biggest GDP in the world after the U.S. and Japan in 2007. China is known as a “black hole” of foreign direct investment (FDI). The foreign exchange reserve of China was USD 1,434 billion at the end of November 2007. The increase of the share of Chinese export goods in the major market is continuing. Even though there are some concerns on the future of Chinese economy due to socioeconomic polarization and problems in the financial sector, the Chinese economy is still expected to grow rapidly. Therefore, the factors we mentioned above can be both a threat and opportunity to the Korean economy.

Table 9. Percentage Changes in Chinese Economy

(Unit: %)

	2005	2006	2007 1/4
GDP	10.4	10.7	11.1
Manufacturing Production	16.4	16.6	18.3
Sales of Consumer Goods	12.9	13.7	14.9
Investment	26.0	24.0	23.7
Consumer Price	1.8	1.5	2.7

The development of the Chinese economy plays a major role in the growth of Korean economy. The trade surplus of Korea in its trade with China after 1993 has been the main source of Korean overall trade surplus although it has now become a concern for the Chinese government and has turned into the reason for the trade conflicts between the two countries. Chinese data shows a trade imbalance between the two countries. Increase in the Korean export to China caused an increase in Korean import from Japan. In 2007, Chinese export is expected to reach USD 1,200 billion (23.7% increase) whilst Chinese import is expected to reach USD 946 billion (19.5% increase). In total, trade surplus is expected to reach USD 254 billion (42.8% increase). China's recent policy change to improve industrial structure and to control trade (restricting export and increasing import) will bring difficulties to Korean export to China. Decrease in the processing

Table 10. Technology Gap (2005)

	Korea(A)	China(B)	A-B
Display	78.3	56.7	21.6
Shipbuilding	75.2	54.3	20.9
Semi-conductor	74.5	53.8	20.7
Automobile	76.5	55.9	20.6
Digital Electronics	94.4	74.1	20.3
Computer	75.5	59.4	16.1
Mobile Phone	83.7	68.5	15.2

Source: SERI CEO Information no. 618 (2007).

trade in China will bring a decrease in imports of Korean parts.

Korean perspective on the technological gap between Korea and China is that the technological gap has narrowed and China will overcome the gap within few years.

However, the Chinese perspective on this matter is that the difference in the technology between the two countries will be maintained for some time even though some surveys¹⁾ show that the Chinese industry has much more advanced technology than the Korean industry. In some industries, the Korean perspective is regarded as correct, but in other industries, the Chinese perspective is regarded as being relevant. Korea has a trade surplus in the High Technology (HT), Medium High Technology (MHT), and Medium Low Technology (MLT) industries. However, Korea shows a trade deficit in the Low Technology (LT) industry. In 2006, Korea experienced the slowdown in the increase rate of the export of the high technology and medium high technology industries. In high technology industry, the increase rate of Korean export to China decreased by 28.9% in 2006 even though it increased by 8.6% to USD 27.8 billion. The trade surplus of HT industry decreased by 10.3% in 2006, which was the first time since 1992. Korean MHT industry also suffered a decrease in the increase rate of export to China of 7.2% in 2006. In the LT industry, the trade deficit increased by 31.4% in 2006.

Table 11. Trade Balance of Korea with China by Technology Level

(Unit: Million USD)

	1992	1995	1998	1999	2000	2001	2002	2003	2004	2005	2006
HT	34	135	248	163	815	508	3,353	6,454	10,220	14,347	12,875
MHT	153	1,555	1,559	1,541	2,364	2,308	3,226	5,834	8,645	10,158	10,887
MLT	844	993	3,733	3,692	4,387	4,307	3,555	5,790	6,789	6,020	5,861
LT	-1,137	-565	571	336	-400	-1,003	-2,082	-2,823	-4,011	-5,214	-6,852

Source: Lee, Seungsin(2007), The Change in Trade Structure between Korea and China and Its Implication, China Issue Report (2007-28).

In 2006, the share of HT industry in the Korean export decreased

1) Chung, Jungyu and Kim, Myungsun (2007) "The evaluation of Korea and Korean Company by Chinese Partners" China Issue report (2007-32).

by 1.3%, the first time since 1992. This was caused by the decrease of the shares of the electronics and telecommunication sector in Korean export to China. The share of LT industry in Korean export to China has decreased since 1995.

Table 12. The Share of Korean Export to China by Technology Level
(Unit: %)

	1992	1995	1998	2000	2001	2002	2003	2004	2005	2006
HT	5.7	7.8	11.5	20.6	20.7	31.7	35.0	37.5	41.4	40.1
MHT	16.2	26.1	20.8	23.3	24.6	25.3	27.0	27.2	26.9	27.7
MLT	60.5	42.2	45.5	38.0	37.1	29.2	28.3	27.8	25.6	26.6
LT	17.3	22.4	21.3	17.5	17.2	13.4	9.3	7.1	5.9	5.4

Source: Lee, Seungsin(2007), The Change in Trade Structure between Korea and China and Its Implication, China Issue Report (2007-28).

The HT and MHT industry goods import from China has also increased whereas LT industry goods import from China has decreased ever since 1992. The share of electronics and telecommunication has increased and that of apparel has decreased.

Table 13. The Share of Korean Import from China by Technology Level
(Unit: %)

	1992	1995	1998	2000	2001	2002	2003	2004	2005	2006
HT	3.2	7.8	17.3	23.4	24.4	24.0	26.6	28.5	29.2	30.8
MHT	7.4	11.2	14.2	15.1	16.2	16.0	16.7	16.6	16.8	17.3
MLT	20.4	38.7	26.2	20.6	18.4	19.5	19.0	23.9	25.5	25.9
LT	42.9	35.4	30.5	28.3	31.0	30.3	27.8	25.5	22.9	21.9

Source: Lee, Seungsin(2007), The Change in Trade Structure between Korea and China and Its Implication, China Issue Report (2007-28).

However, there is some consensus that cooperation in technology transfer is needed because both countries can create a win-win situation in the world market. There are some reasons: first, the two countries are main competitors in major markets; and second, the market share of Korean products in the world market decreased as that of Chinese

products increased. However, cooperation is required to bring mutual benefit.

There are many reasons for the change in the trade structure between Korea and China. However, the increase in Chinese production and export during the first half of 2007 is the main reason. All major trading partners except the U.S. experienced a decrease in the Chinese market share. Market share of Korean products in the Chinese market decreased from 9.3% in 2006 to 8.7% in the first half of 2007. The increase in the production of semiconductors, steel products and automobile in China will continue and these items are major exporting goods of Korea to China. Therefore, the trade structure will change into the current trend, which was shown above. The change of the Chinese government's policy is another reason for the changes in the trade structure.

China-Korea FTA can be a useful tool to bring cooperation between the two countries. After the Korea-U.S. FTA, China is the candidate for the next major FTA partner for Korea. However, there are some sensitive issues between the two countries. Agriculture is the most sensitive sector to be solved during a possible China-Korea FTA. Intellectual property right is another big issue for a China-Korea FTA. There will be many other issues to be solved through the negotiation of a China-Korea FTA. However, the economic effects of FTA between China and Korea should be considered more seriously than these sensitive issues. The horizontal and vertical international specialization between China and Korea will be the solution for the mutual benefits for the two countries.

Both countries are major trading partners to each other. The importance of a partner is crucial for the success of an economic performance. Therefore, mutual cooperation is important for the prosperity for both countries. In a survey²⁾, about 70% of Chinese partners answered that they have amicable impression of Korea and Korean companies. They also wanted to increase partnership with Korean companies. There are many ways to improve the relation between Korea and China. There will be both challenges and opportunities for both China and Korea to build strong relations. Trade will be the main

2) Chung, Jungyu and Myungsin Kim (2007) "The evaluation of Korea and Korean Company by Chinese Partners" China Issue report (2007-32).

method for mutual benefits as it did in the last fifteen years.

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China's Energy: Challenges and Strategies

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The energy production problems, as well as global warming and pollution, are interrelated with financial policy, because for each of these issues, broad investment to support their resolution and wise government policy is needed. Thus, the solution to energy problems will proceed in lockstep with decisions on financial policy.

Today's dominant trend of utilization of fossil fuels will persist but it is important to note that if the current rate of fossil fuel utilization continues, the world will run out of atmosphere faster than it will also run out of fossil fuels. Though the specter of terrorism is a major problem for the world, in my opinion, it is energy supply, not terrorism, which really affects the viability of our high-technology lifestyle.

I first present some basic facts about energy production. According to projections of energy supply and demand, coal will still play the dominant role, representing at least 50-60% of energy production even by 2050. Coal utilization will contribute about 70-75% of the total carbon dioxide in China (currently 76.8%), as well as being a major contributor to levels of sulfur dioxide, nitrogen oxide, magnesium phosphate, and, in particular, mercury. About 80% of coal will be used for power generation in the future (currently, 45-50% is used for this purpose). Thus we can predict that coal-fired power plants will contribute 60% or more of the total carbon dioxide emissions in China in the future.

What about alternatives to coal for energy production? Large-scale use of liquid fuel could be realized in China only through the use of

coal-derived alternatives (including F-T synthetic fuel, Methanol, or DME) as a significant share of power generation. Ethanol from corn and cellulose and widespread burning of plants would, by 2020, still only make up for a small percentage of the shortage problem. Similarly, utilizing flue gas from power plants to capture carbon dioxide is extremely investment-intensive and requires unaffordable large energy consumption per unit of carbon dioxide gained. The potential for hybrid power production, especially the "hydrogen economy" with usage of renewable derived hydrogen, still lies far in the future, perhaps 20 to 30 years before becoming usable.

What are the solutions to this problem? The only way out is to speed up the development of nuclear and renewable energy. Within the next 20 to 30 years, it is imperative to establish sustainable and modernized utilization of coal and expand beyond direct combustion methods. China could realize the large-scale mitigation of coal usage only by speeding up the development of nuclear and renewable energy. There must be an initiation of the co-production of power-producing liquid fuel, chemicals, heat, and gas through coal (or petrol coke) gasification and chemical reactors. This is the so-called "poly-generation" of power that will lead to an integrated resource-energy-environment system. This process involves coal gasification and then the cleaning and using of the machine gas for power production. Integration with chemical products and liquid fuel is also necessary, and further processes will allow production of hydrogen. In addition to such power generation, such technology can be also be used for commercial and residential purposes. A simple illustration of poly-generation is shown in Figure 1A and Figure 1B.

Essentially, this process of poly-generation is a sustainable, technologically realistic, economically beneficial, and ecologically friendly way for carbon dioxide mitigation, capture, and further sequestration, all coming from the flue gas of power plants. This is the most important strategy of energy creation for China, and indeed the world. Poly-generation does not require any specific technology breakthroughs; it is consistent with existing technology, including steam and gas turbines, and chemical reactors, but implements such technology in a combined cycle. This technology was already mature, but the problem has been to find such a way to combine them together. In fact, when triggered, concentrated carbon dioxide can easily be captured through

Figure 1A. Integrated Gasification Combined Cycle

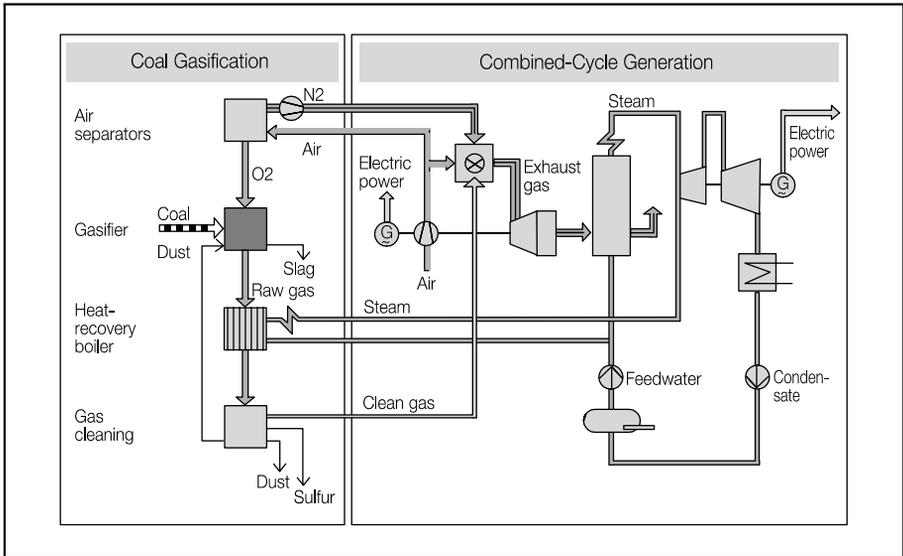
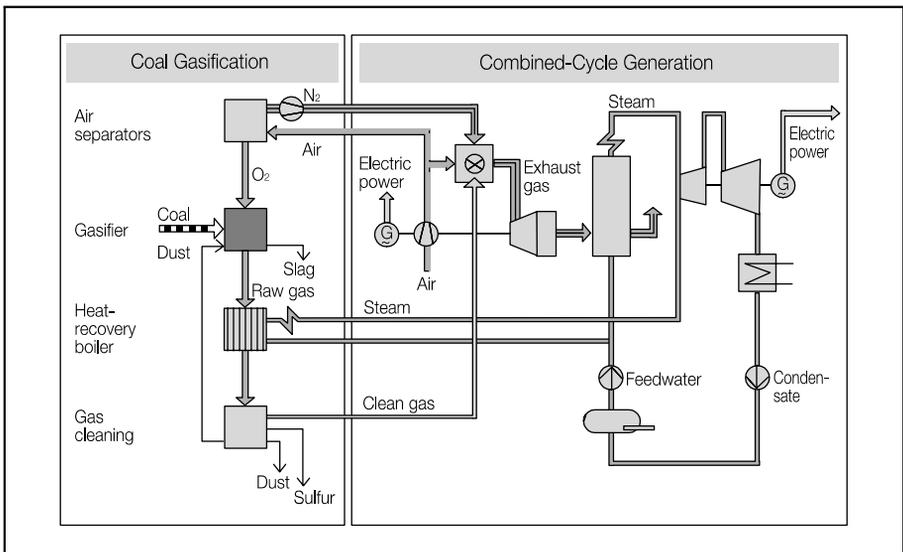


Figure 1B. Poly-generation in the Gasification Combined Cycle

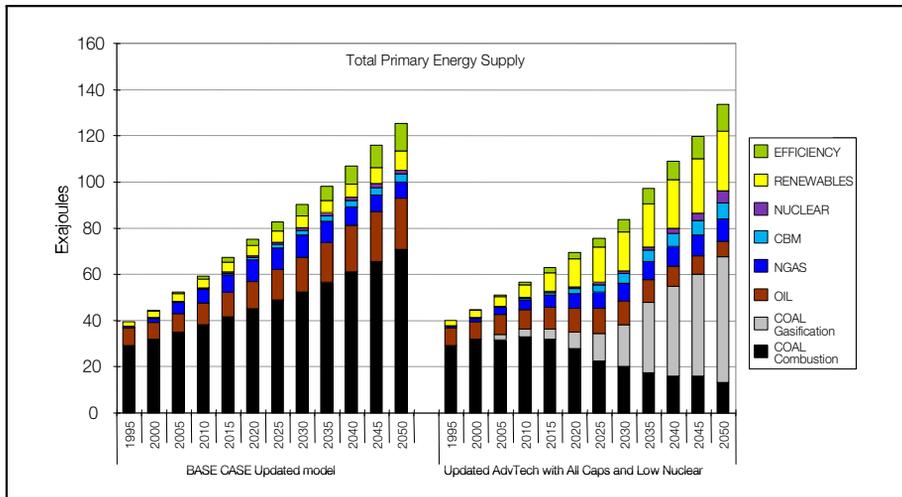


these natural and technological processes. Thus, poly-generation has made it easier to capture carbon dioxide. This is the strategic way to reduce carbon dioxide emissions inside China. Furthermore, as environmental regulations grow ever more stringent, the economic advantages of coal gasification will become more and more significant. Certainly, global warming is a pressing issue of our time, and the best way to fight it is with the capture of carbon dioxide through the process of coal gasification and poly-generation.

What are the costs of this type of technology? Even if we were to use only low-cost technology to provide energy, while there will be higher efficiency in the short-term, coal gasification will allow strict control of mercury levels and other particles that are less than 2.5 microns large, in line with environmental recommendations. So there are considerable benefits to switching to poly-generation. As opposed to low-cost coal burning, high use of this poly-generation technology will continue to present opportunities to make it more efficient. For the future, from the point of view of prevention of pollution and global warming, there is much more to be gained from poly-generation.

Figure 2 shows some calculations from models testing the introduction of poly-generation. As can be seen clearly in the comparison between

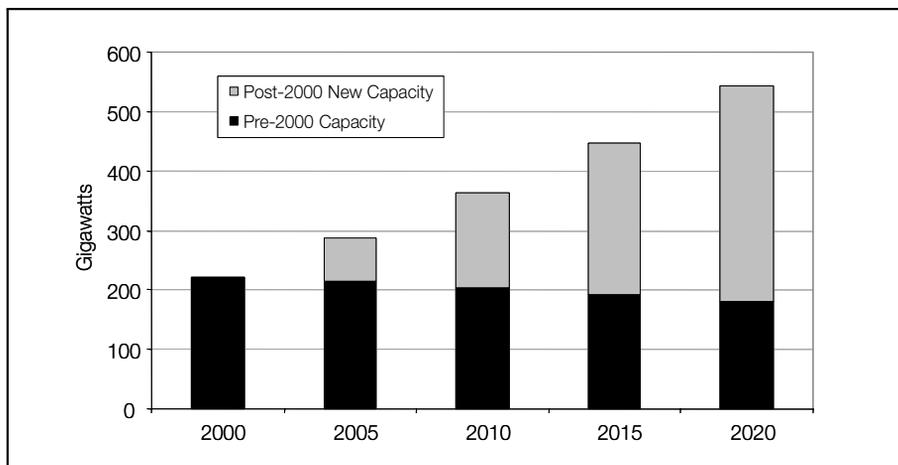
Figure 2. Scenario Study (MARKAL model)



no use of coal gasification on the left and its gradual introduction on the right, introducing it gradually up to 2050 can produce energy for about the same cost as the basic knowledge strategy. Sulfur dioxide will reduce dramatically, from 23.7 Mt in 1995 to 16.2 Mt in 2020 and 8.8 Mt in 2050. Even inputs of oil and natural gas will be limited to 30% of current consumption over the long term. Of course, the capture of carbon dioxide will become easier, too.

The power capability of China's power plants increases about 1.8 gigawatts every year (see Figure 3). As capacity grows, it will become more and more difficult to convince the plants to switch to gasification. Thus, the need to take the technology of power generation to the next level is pressing, especially since each power plant lasts for 40 years after it is built. Delaying the transition to coal gasification based technology will be very costly for China, not only in the cost of air pollution damage, but also in the costs of oil imports and in reduction of greenhouse gas emissions.

Figure 3. Projections for Coal Plant Power Capacity



China needs an integrative energy strategy that should be divided into long (20-50 years), intermediate (8-15 years) and short term (3-8 years) thinking. Any significant change requires a long-term plan, due both to the significant inertia of the current system and the sunk costs

of the 40-year power generation cycle. However, if we don't start now, we will be losing a lot of time. The Chinese proverb of "when the head aches, fix the head, when the foot aches, fix the foot," is not the way to solve China's energy problems. China's transition from direct combustion of coal to gasification will require more investment. How to find the right policy of government control and public support is difficult too, since many enterprises are not convinced this is the right direction.

There has been some advancement of poly-generation in China recently. In 2006, during the "State Long Term Science and Technology Development (2006-2020)," poly-generation was formally recognized as a strategic direction of clean coal utilization. Also, the Ministry of Science and Technology has already approved the key project of "Poly-generation Based on Coal Gasification and its Demo Projects." Therefore, the "Poly-generation Project" is on the state track and will have significant progress for the coming five years.

FDI in China and Policy Consideration

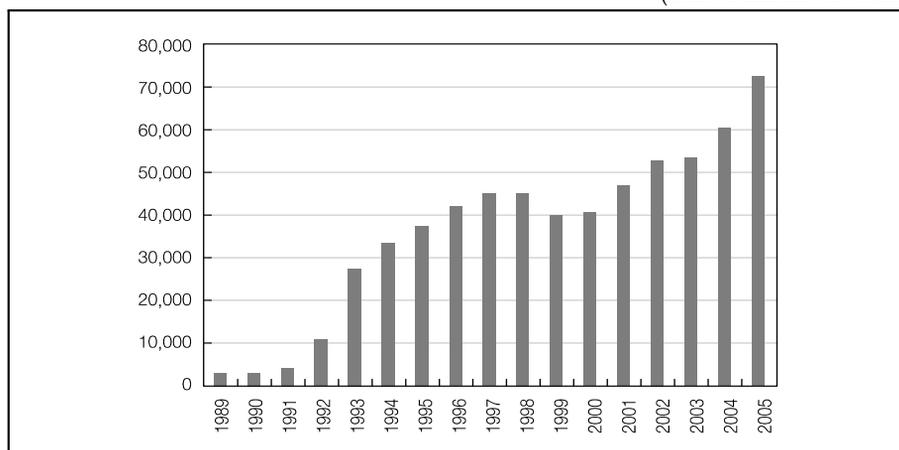
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This paper discusses a number of issues relevant to foreign direct investment (FDI) in China. We will cover trends of FDI inflow and outflow into China and its global position, FDI policy in China, the positive impact of FDI inflow on China, new challenges and debate on FDI issues, and the possible trend of FDI policy. We start by charting FDI flows. Figure 1 shows the amount of FDI entering into China from 1989 to 2005.

Figure 1. FDI Inflow, China, 1989-2005

(Unit: Millions of USD)



This trend can be divided into 3 stages. Prior to 1992, China did not have much FDI inflow. Afterwards, following the era of Deng

Xiaoping, there was strong and rapid growth in FDI. However, in 1999, there was a year-on-year decline for the first time, due to the effects of the Asian Financial Crisis. In 2000, FDI began rising again. As we can see, the next phase starts with the end of 2001, when China entered the World Trade Organization (WTO). From that time up through 2007,

Figure 2A. FDI Inflow, Global, 1989-2005

(Unit: Millions of USD)

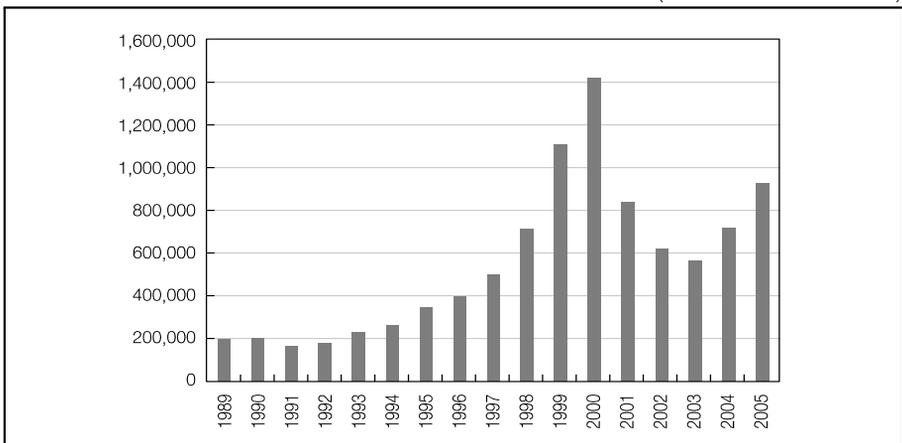


Figure 2B. FDI Inflow, Developing Countries, 1989-2005

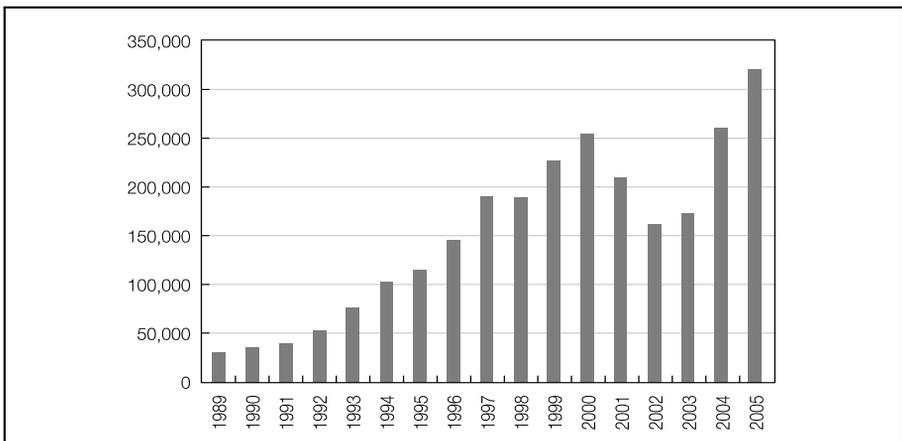
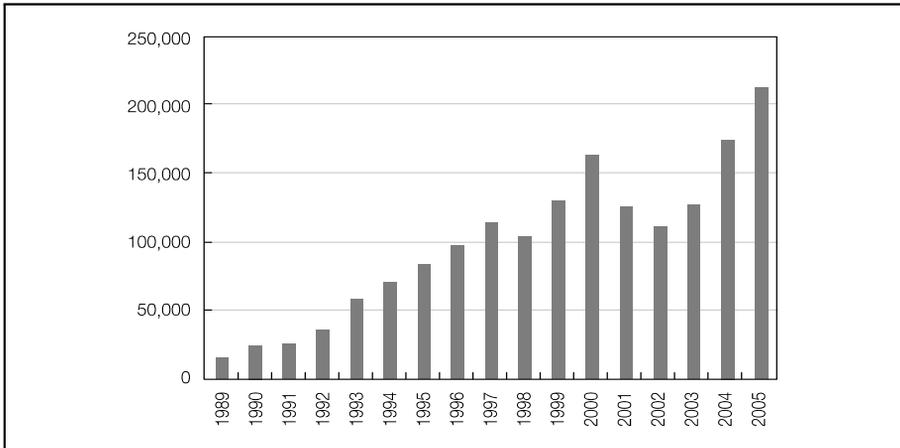


Figure 2C. FDI Inflow, Asia, 1989-2005



there has been a growing pattern of FDI inflow. According to the Ministry of Commerce statistics, inflow in 2006 was about USD 69 billion, a 4% decline compared with 2005. Over the first six months of 2007, however, it has continued to go up. Figure 2 presents FDI inflows for other selected groupings, in comparison with the above trends for China.

China has had stable growth in relation to the global inflow trends. In 2004 and 2005, Chinese FDI inflow made up 8-10% of global inflow. Furthermore, China attracts about 25% of FDI inflow into developing countries (Figure 2B), and 35% of the total into Asia (Figure 2C).

As for outflows, they have not been as stable as inflows, and the values are not as large. Compared with worldwide outflow, China had a relatively high increase only in 2005 (Figure 3), and in that year, China did not even have 2% of the world total (Figure 4A). Also, in 2005, China made up only 8% of developing country outflow (Figure 4B), and 10% of Asian FDI outflow (Figure 4C).

Figure 3. FDI Outflow, China, 1989-2005

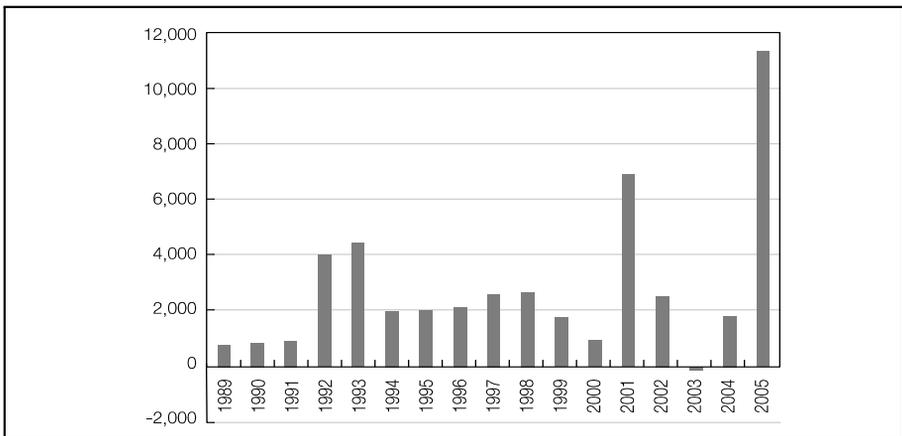


Figure 4A. FDI Outflow, Global, 1989-2005

(Unit: Millions of USD)

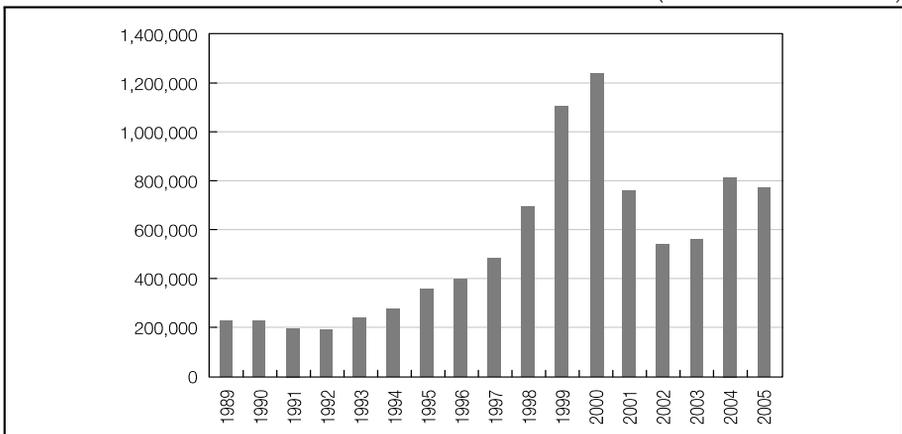


Figure 4B. FDI Outflow, Developing Countries, 1989-2005

(Unit: Millions of USD)

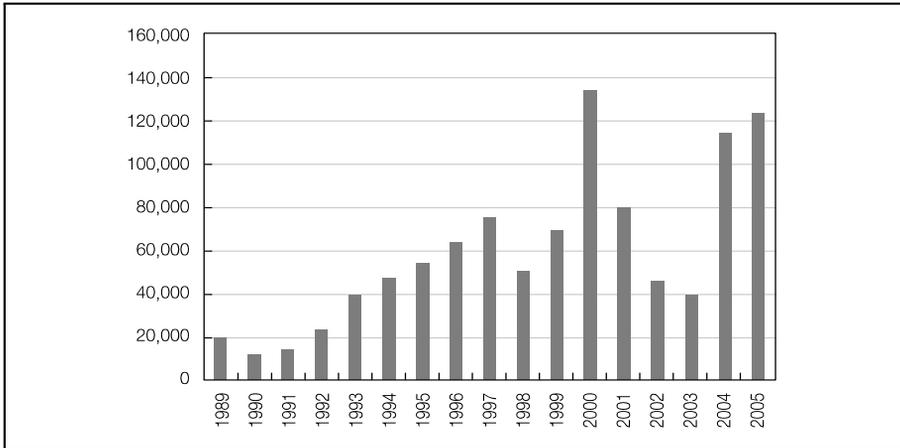
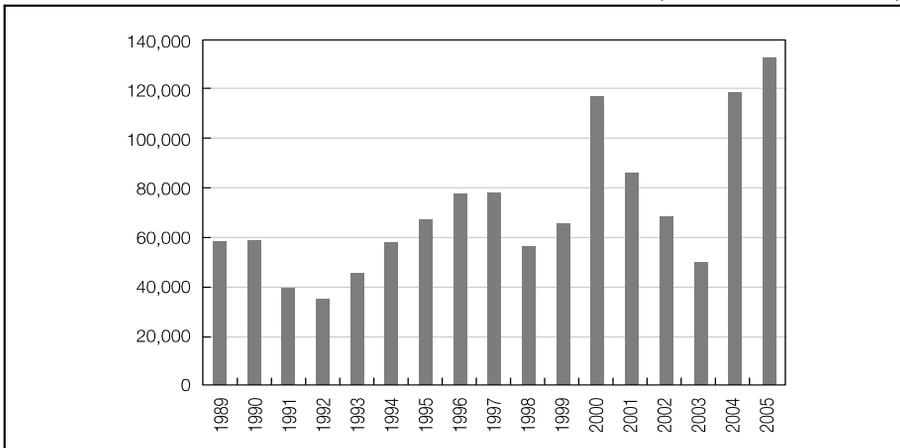


Figure 4C. FDI Outflow, Asia, 1989-2005

(Unit: Millions of USD)



If we look at the balance of FDI flows, we can see that in China they are severely mismatched (Figure 5A). For Korea, in terms of inflow-outflow comparison, they match much more closely (Figure 5B), as do those of the United States (Figure 5C).

Figure 5A. FDI Balance, China, 1989-2005

(Unit: Millions of USD)

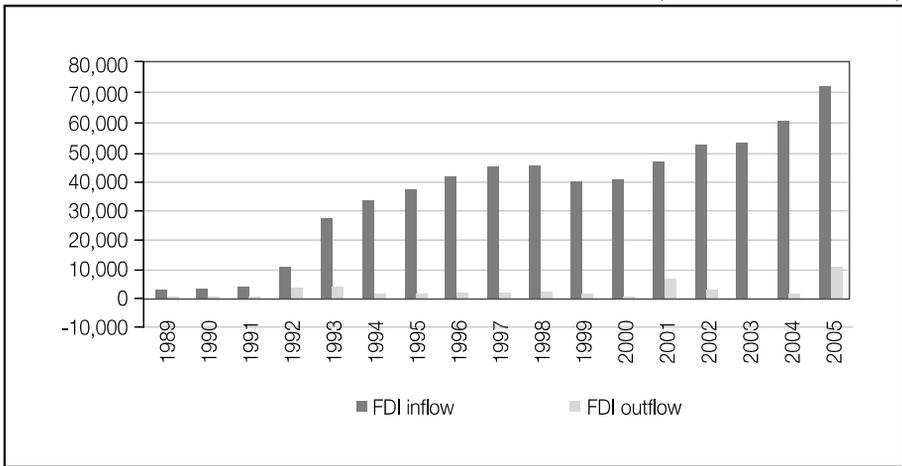


Figure 5B. FDI Balance, Korea, 1981-2006

(Unit: Millions of USD)

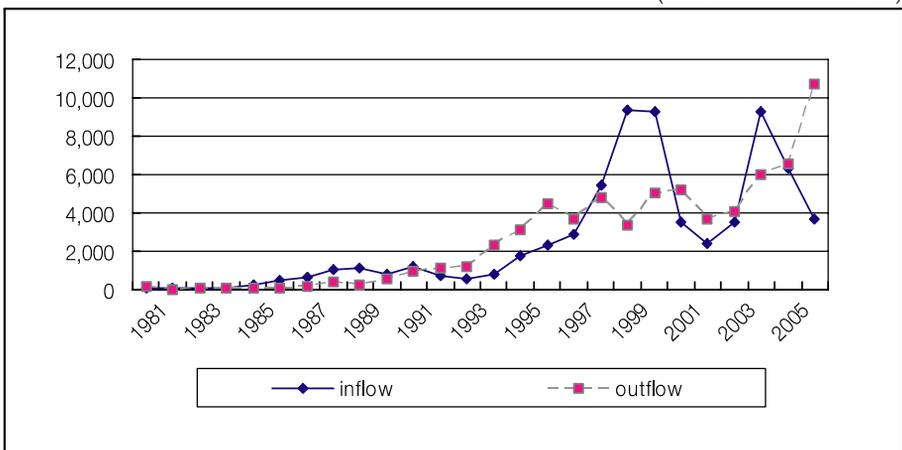
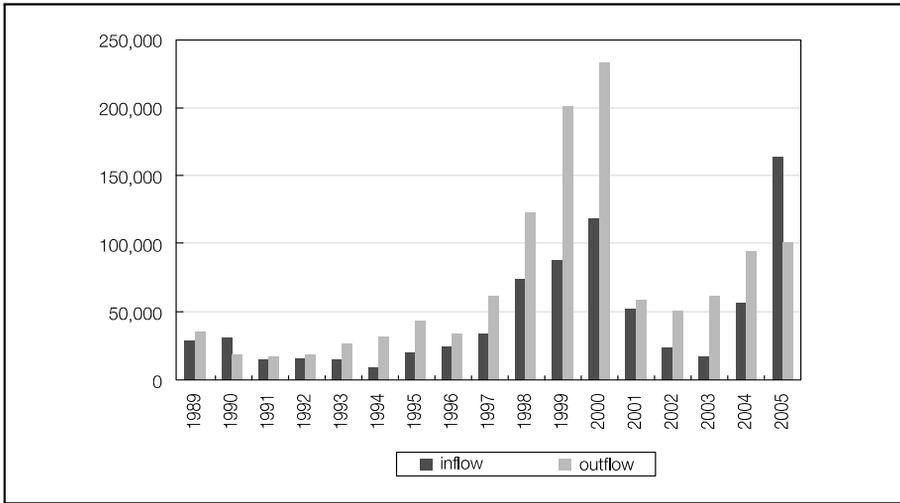


Figure 5C. FDI Balance, United States, 1989-2005



Following this basic outline of FDI trends, I will next discuss what features make up FDI policy in China. Essentially, this policy can be described as: gradual opening up of China. Generally, we can see the shape it takes from the “Catalogue of Foreign Direct Investment Guidance,” published by the Ministry of Commerce. The components of this catalogue are in three parts – encouraged sectors, sectors with limitations, and sectors where FDI is prohibited. Though first published in 1995, the catalogue has been adjusted several times, in 1997, 2002, 2004 and 2006. These adjustments have included the following: increasing the number of encouraged sectors, reducing the number of sectors with limitation; releasing some sectors from prohibited sectors to sector with limitation, permitting FDI in the establishment of wholly-owned companies, and releasing limitations on share control. As a result of these reforms, many companies have gradually opened up to the world.

From all these changes, we can gather that the number of encouraged sectors has increased, and limited ones have decreased. In 2002 and 2004, some sectors in which FDI was prohibited have moved to become “limited sectors.” From another perspective, at the very beginning, the Chinese government encouraged joint ventures, but foreign investors are now permitted to start their own wholly-owned

enterprises. Also, some of the share control in some specific sectors has been freed. Generally speaking, as you can see from these catalogue adjustments and the effects they have had, the official policy is one of opening up gradually.

Different industries have their own FDI policies that line up with the "Catalogue," too. The retail sector is a concrete example. At the end of 2001, foreign chains were only allowed to open stores in a maximum of two cities, with a limit of one branch in each. By 2002, the bar was moved forward to allow a presence in nine cities, but with no more than two in Beijing or four in Shanghai. By 2003, stores could be opened in all provincial capitals, but with a limit of four per city. Finally, by 2004, all restrictions were removed. Similar trends are found in the allowable foreign-owned stake in joint ventures. Thus, it is clear this area has also been opening up gradually.

Of course, there are some other policies accompanying these "opening up" policies. One relates to regulations on mergers and acquisitions. Prior to 2003, before regulations on mergers and acquisitions were promulgated, multinational corporations found it very difficult to pursue this route in China, despite its obvious usefulness in a competitive business environment. However, by 2003, clear regulations were put forth, and in 2006 the Ministry of Finance added even greater detail to the laws. This is a positive sign, because it makes the road much smoother for multinational corporations to conduct business. Another policy that has been promoted is the "Develop the West," which has encouraged FDI to find its way to the poorer Western regions of China. One final point on these issues is that from 2004 and 2005, there has been added encouragement for Chinese companies to invest abroad as well. That is a general summation of the policy guiding FDI in China.

China has truly enjoyed a positive impact from FDI inflows. On the macroeconomic level, FDI has contributed strongly to GDP and export growth (it represents 60% of the total value of export) and has provided a boon to employment. On the microeconomic level of industry and firm, FDI has helped tremendously in the upgrading of local industries. As one example, China was once dominated by very traditional retail stores, but currently, over 10 years since the entrance of Wal-Mart and Carrefour, China has started to have a new supermarket model. Now many Chinese local companies compete in

the sector of hyper-supermarket business models. Also, foreign investors have provided the impetus for the development of new industries, such as cell phone manufacturing. There was a time when China was incapable of doing things like that, but now there are a number of companies that specialize in such jobs. Furthermore, FDI has helped improve local firm productivity through breeding healthy competition, learning, imitating, establishing industry relations (both backward and forward linkages), and bringing in people from multinational companies. Finally, they have helped local suppliers to upgrade their skills.

I have done some empirical testing on FDI spillover for the periods between 1998-2000 and 2000-2002, and have found it has significantly helped improve local labor productivity. At the same time I have performed case studies on the cell phone industry and the retail industry, and it can be concluded that FDI spillover adds much to their total productivity. A few Korean scholars have also completed case studies that showed large improvements in local industry (a 1999 study by June-Dong Kim), and a large positive effect of spillover from empirical studies (a 2002 study by Byoungki Lee).

Though China has made a lot of progress, there are also many challenges and problems in its dealings with FDI. I will here cover some of the topics found in debates in China on these issues. On FDI inflow, we have different opinions on energy constraints, the principle of exchanging markets for technology, a fair competitive environment for local and foreign firms, national security versus industrial security, and the opportunity for local firms to develop. In the area of FDI outflow, we also debate whether the best way to reduce foreign reserves is to increase investment, and whether it is a problem for local firms to invest overseas before they can compete on the mainland. One source of conflict is whether it is the right principle to exchange technology for an available product market. Costs are rising in China and the Chinese yuan is rising in value, so there is huge pressure to upgrade industries and gain new technology, but it is difficult to gain much in response from multinational companies. In the author's view, during the early stages of openness, transfer is really the right principle, because at that time, local firms could learn a lot from foreign investors in essence just by observing and imitating. When one store opens right next to another store, the original manager can see different ways to arrange products or offer discounts to run the

business. They can learn a lot in this way. Another reason local firms should be able to learn from their competitors is that because demand in the Chinese market for high-level technological goods is not very high, foreign companies use fairly low-level technology that are not at a very high level, and it is easy for the local company to learn, imitate, or even just buy similar types of products.

In this way, Chinese companies learned a lot before 2003, which was a good era for local companies. However, now that they have met the difficulties, and with plenty of inflow of FDI, local firms want to further use higher-level technology, but such core technology is also the key competitive element of foreign companies. Thus, they are not willing to engage in technological exchange. Now, academics and companies are challenged by this question and are trying to create a new model and move in that direction.

Other issues existing in China are promoting fair environments for local and foreign companies and providing opportunities for local companies. There are a number of existing tax and land privileges for foreign firms, as well as easily winning the preferences of many local governments. This has led to problems for local firms' development and cost disadvantages compared to foreign competitors. In some sectors, land (location) is another commodity such companies is in competition for.

We think the current problems are not the ones that have occurred alongside reform, but rather that they are created by more complex situation between firm interests on one side and the continuing process of "reform and opening up" on the other. China needs to have both of these in integrated considerations. We think the openness policy should be adjusted to address the technological competence of local firms, to continue using them as a tool to help local industries and allow such firms to grow. There are some possible policy changes on the horizon, some of which will likely happen soon. One is the limiting of the development of high energy consuming and high-polluting sectors. Second, China will equalize tax collection from local and foreign firms and stop giving cheap land to foreign firms, to create a fair environment for both types. Third is that new models of exploiting FDI technology and knowledge sharing will be encouraged. Finally, differentiated policies for different types of industries will be needed, which will require specialized studies of industries and the effects they have on the economy.

The Korea-US Free Trade Agreement: Economy-wide Effects and Conclusions

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This project aims to be a comprehensive look at the recently ratified Korea-United States free trade agreement (FTA). We will cover the respective free trade strategies and objectives of the two countries, the economy-wide effects of the FTA, the long negotiation process, and the major outcomes of the successful agreement.

We start with the objectives and strategies of each country in pursuing an FTA. For Korea, the objectives for an FTA were to secure a stable global market and strengthen Korea's economic system and competitiveness through networks with large advanced economies. Its strategy, therefore, was to engender and commit to a multi-track, high quality and comprehensive FTA that would win the popular support of the Korean constituency. The US strategy, on the other hand, was to seek complete liberalization and had a number of different objectives: pushing forward trade liberalization, dealing with policy considerations for security and trade, strengthening political and strategic alliances by deepening economic integration, and finally, spurring internal economic and political reform. Thus both governments were positive about the idea of a bilateral FTA, but for varied reasons and with different strategies.

For Korea, there were numerous potential benefits of an FTA with the US both economically and politically. First, there would be a plethora of macroeconomic benefits from what would be the third-largest economic arrangement in the world, behind the European Union (EU) and the North American Free Trade Agreement (NAFTA). A Korea-US FTA would provide a business-favorable environment for

Korean enterprises by securing their position in the US market earlier than Korea’s foreign competitors seeking to enter and compete in the US market. It would also open the gates for increased foreign direct investment (FDI) by enacting economic institutional reforms, strengthening globalization, and reducing security risks. The prospect of FDI increases can be seen in the example of other countries that have signed FTAs with the US, shown in Table 1, which shows that growth prospects would be enhanced and employment opportunities would be increased. Consumers would also enjoy more benefits, with lower prices for imported goods, more price competition in domestic goods, and a wider selection of more differentiated services.

Table 1. FDI Flows from the US into Countries with a Free-Trade Agreement

Country	Time Periods		Average Annual Growth Rate of FDI Inflows from the US	
	Before FTA	After FTA	Before FTA	After FTA
Chile	1990 ~ 2003	2004	6.04	10.61
Singapore	1990 ~ 2003	2004	11.84	15.19
Australia	2001~ 2003	2004	20.76	84.30
Canada	1990 ~ 1993	1994~2004	0.20	19.18
Mexico	1990 ~ 1993	1994~2004	15.86	29.22

Second, signing such an agreement would work wonders in upgrading Korea’s domestic industrial structure. It would strengthen Korea’s high value-added industrialization by allowing the entrance of high tech FDI, which could strengthen technology development, and encouraging advanced management skills. Moreover, it would develop and advance Korea’s service industry through contact with the US service industry, which remains the most advanced service industry in the world. This would build a global standard in Korea’s businesses that would reflect the economic institutions of advanced countries for sustained economic growth. The legal and institutional advancements in reform would facilitate cross-border exchange of production elements such as capital and human resources, improve the corporate management

environment, and establish the foundation for domestic enterprises to enter overseas markets.

Third, an FTA would enable the emerging Korea to be a hub for future FTAs. Both the EU and China have expressed strong interest in completing an FTA with Korea, both of which are enormous markets that would markedly affect the Korean economy. As the first East Asian country to sign an FTA with the US, Korea could also begin to serve a bridge role between Europe, East Asia, and the US. A Korea-US FTA would serve as leverage for it to be a hub for an East Asian free trade community.

Finally, from a geopolitical perspective, a "KORUS FTA" would strengthen security relations between Korea and the US in striving for the common foreign policy objective, which is expected to contribute to sustainable peace in the Korean peninsula and the maintenance of a stable balance in East Asia. The military alliance with the US would lead to greater economic integration because as a peace-promoting effect in East Asia, it would ease security risks and enhance stability and prosperity in the Northeast Asian region. Therefore, Korea's strategic position to the US, China, and the world would be improved. In doing so, Korea's credit rating would be enhanced by achieving an advanced economic system.

Next, we turn to the process of how the idea of establishing an FTA between Korea and the US came about. The idea was first mentioned at the Asia-Pacific Economic Cooperation Forum in 2004, and then at six rounds of US-Republic of Korea (R.O.K) trade ministerial meetings in 2005. Formal negotiations opened in February 2006, and from June 2006 through March 2007, there were eight rounds of negotiations followed by two more high-level rounds of negotiation. The Korean delegation had over 200 delegates and the US had 150-200 delegates as well, so it was a massive undertaking. Negotiation was concluded on April 2, 2007, the very last possible day it could be reached, since the US President's ability to conduct trade policy without the approval of Congress was concluded on June 30, 2007, and a 90-day window was required. The newly elected Democratic Congress presented a new trade plan on May 10, 2007 (the New Trade Policy for America), requiring two additional consultations from June 21-26, 2007. In addition to US political challenges, Korea had close to 50,000 demonstrators protesting the trade agreement, despite very

heavy rains. This is starkly different from the Korea-EU trade agreement, which did not have any picketing at all. In 2005, the World Bank had published a report saying that the FTA was already very comprehensive and rule-intensive, but as time went on, the FTA grew even more complicated. However, within the limited time of 18 months, we were able to negotiate this highly-comprehensive trade agreement, and it was signed on June 30, 2007.

Upon starting the negotiation, three goals were stated. First was to pursue comprehensive and high level liberalization. Second was to respect and address each other's concern for sensitive industries. As is well known, Korea's weak points that expect protection are its agricultural industries, especially beef, fishing, rice, and others. Though at first the US said there would be no exceptions, both parties agreed to work together and compromise. The third goal was to create balanced benefits and win-win situations for both countries. Bringing about both the second and the third goal together was the truly challenging part, but as a participant for the Korean side, I believe both sides succeeded.

Now we discuss the outcomes and clauses of the FTA. Overall, a very high level of liberalization was achieved in commodities and

**Table 2. Goods Tariff Concessions:
Immediate Elimination and Removal within 3 years**

	Korea 	US 
Immediate Elimination	7,218 Items 80.6% of Total Imports	6,176 Items 87.2% of Total Imports
	Passenger Car (8%), Auto Parts (3~8), Digital Projection TV (8), etc.	Passenger Car below 3,000cc (2.5%), Auto Parts (1.3~10.2), LCD Monitor (5), Camcorder (2.1), Color TV (5), etc.
Removal within 3 years	719 Items 13.4% of total Imports	360 Items 7.4% of total Imports
	Toothpaste (8), Perfume (8), Golf Club (8), etc.	DTV (5), Passenger Car over 2,000cc (2.5), Golf Supplies (4.9), etc.

agriculture. For goods, over 94% of tariffs were eliminated with a timescale of three years, as shown in Table 2.

As for agricultural products, the weak industries that were mentioned above were respected, and came down especially hard on rice production. Otherwise though, besides rice, all agricultural products were put on a schedule to have their protection eliminated (Table 3).

Table 3. Agriculture Tariff Concessions

	Korea 	US 
	55.8% of Total Imports	58.7% of Total Imports
Immediate Elimination	Frozen Orange Juice, Grape Juice, Textile Raw Materials (Raw Cotton ·Hemp), Flowering Grass, Coffee, Wine, Wheat, etc.	Ramen, Pear, Processed Foods, Beverages, Wine, Bourbon Whiskey, Soy Sauce, Frozen Orange Juice, etc.
Rice	Exempted	
Beef	Eliminated in 15 yrs + Safeguard (SG) for 15 yrs	Eliminated in 15 yrs
Dairy	Eliminated in 10~15 yrs	Eliminated in 10 yrs + TRQ
Sugar	Eliminated in 16 yrs + SG for 20 yrs	Eliminated in 10 yrs
Pork	Chilled Pork : Eliminated in 10 yrs + SG 15 yrs Frozen Pork : Eliminated by Jan. 1, 2014	
Orange	Sep. ~ Feb. : Current Tariff + TRQ 2,500t (3% up), Seasonal Tariff (remaining months): Seven-Year Phase Out from 30%	

Automobiles also had a high level of opening, with an extra automobile test implement for Korean cars, based on the size of the engine, which reduced luxury taxes and the Annual Vehicle Tax. An important institutional mechanism that was created for this sector is the

“Special Expedited Dispute Settlement and Snap-Back” system, meaning that if either one of the countries violated their agreements, tariffs for automobiles would come back from the other side.

In textiles, Korea eliminated tariffs immediately on 72% of total imports and the US on 61% of total imports. For rule of origin questions, a “yarn-forward” rule was adopted as a general rule to clarify tariff reduction obligations. By way of safeguards and customs cooperation, for 10 years after tariff abolition, verification of origins and an offering of corporate information would be available by product.

One preferential tariff treatment area was products whose origin was in “Output Processing Zones,” special areas of economic development of South Korea with North Korea as well as the Gaesong Industrial Complex, another cooperative project together with North Korea. The committee for these output processing zones decided that the reduction in tariffs depended on three things: the denuclearization of the Korean Peninsula, North-South relations, and standards for labor and the environment. Though it may become a very contentious political topic, we will just have to see how it unfolds in the future,

In the area of investment, although initially a high level of liberalization was pursued, Korean stakeholders fought back. Especially in health, education, and services sectors, there were numerous challenges, including convincing stakeholders to open up these sectors. There was agreement on the main issues, such as excluding legitimate government policies designed to advance public welfare from indirect expropriation (public health, environment, and real estate price stabilization measures), securing the tax authority’s policy autonomy, greatly enhancing the transparency of the international arbitration process, making public submissions to the international arbitration tribunal and hearings, and securing the right to submit amicus briefs by non-disputing parties, such as NGOs. Both sides also reached an Investor-State Dispute (ISD) Settlement Procedure, which built a foundation to increase foreign capital inflows by improving predictability and managing environment of investors in both countries. At the same time, this ISD procedure was a very important issue for the Korean people, as international arbitration in disputes was guaranteed.

As for services, a number of important agreements were reached. A formal mechanism to discuss the mutual recognition of professional certifications was launched, and within one year of the agreement’s

coming into effect, the areas of engineering, architecture, and veterinarian service would begin mutual recognition discussions. Transparency of the legislation process was further improved and the legitimate domestic regulatory regime was kept intact. Looking at services overall, Korea has taken a very high level of liberalization, but the scope of the liberalization is very limited. Even so, the steps taken will lead to a reinforcement of industrial competitiveness and increase in foreign investment, as well as enhanced access to the world's largest service market. The Korean and the US governments reserved rights over certain areas, such as broadcasting, health, and education. For Korea, legal service liberalization was a very important issue that strengthened legal practices inside Korea.

Financial services, ever since the Asian Financial Crisis, have basically been liberalized. Thus, agreements in the Korea-US FTA on those topics were not really new. That being said, a long-term positive effect upon the Korean financial market is expected to be substantial, as the FTA sharpened competitive edge of financial service enterprises, increased financial service consumers' welfare, improved the level and transparency of the financial supervision and regulation, and raised the level of stability in the financial industry. The FTA basically reinforced and strengthened the currency practices that have been the norm since the currency crisis.

We did a very good job in areas including, transparency and institutional advancement, and in others such as, intellectual property rights (IPR) and pharmaceutical industries. Negotiations addressed the concerns of each government as well as NGOs, all while pursuing a high level of liberalization. Though there were some areas, where the expectations of one side or the other were not matched, overall we feel the negotiations were very successful.

Once we consider the original situation, we can see the substantial economic gains and productivity increases that come to Korea. GDP and general welfare will be affected in a positive way. Though the elimination of tariffs could adversely affect the agricultural sector, service will gain employment. This is a very large market and a very good opportunity. Not only will the economies of scale be working in Korea's favor, but there will also be a big increase in FDI into Korea, with technology and advanced management skills. Consumer welfare will be improved as well. We feel that Korea is on the forefront of

being an advanced country, and this will help upgrade the economic system and give more opportunities to improve its legal system. It will also help Korea emerge as a FTA hub for East Asia and reinforce its strategic position.

Thus, Korea has completed this very important FTA with the US, and the government is now working hard to finish another FTA with the EU by the end of 2007. Perhaps China or Japan may be next. When Korea moves in this direction, it will not be alone, because China and other countries in the region will be watching, which could have a domino effect for liberalization in the areas and presents a great opportunity improving the institutional and legal system throughout East Asia. This is both an opportunity and a challenge for workers in these areas.

Why So Little Regional Financial Integration in Asia?: The Role of Liquidity

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This paper attempt to identify why there is so little integration among financial markets in East Asia and try to understand Asia's geographical pattern of financial integration relative to the rest of the world. Many papers have noted that East Asia's integration of financial services is less developed than other areas of the world, such as Europe or the United States. This question is significant for several reasons because financial integration is important for economic growth, and as countries integrate financially, their business cycles increasingly resemble each other. This question is especially interesting for Asia, as it has increased financial integration with developed countries throughout the rest of the world, but has accomplished much less integration within the region itself. This is mainly a problem of global imbalances. For example, China and Korea have invested much in the US, such as in government bonds, which could lead to the exchange rate movements and depreciation of the dollar.

However, this trend is not what we would expect based on the application of theory. According to neoclassical economic theory, after one calculates the price of financial products, there should be regional integration within a grouping like Asia. Nevertheless, Lucas's paradox for capital flow out of poor countries into rich ones seems to apply in this case, possibly because East Asia does not have a wide enough variety of products needed for their economy to grow. Also, there is a geographical puzzle, and the "gravity model" implies the importance of closeness on financial flows. There are also often complementarities between trade and financial integration. In the European Union (EU), for example, intra-regional trade is very connected, and there are

complementarities between trade and financial integration. However, this case does not apply to East Asia.

This paper, thus, tests the validity of a number of potential explanations for why East Asian financial integration is so low. Integration can be determined by higher risk-adjusted returns, higher liquidity (of which its theoretical role stems from the liquidity risk present in asset pricing) or even lower returns (such as portfolio diversification or risk sharing motives), which are different from the typical measures usually used to determine financial integration. Through this, we can try to make some general estimation between advanced benchmark economies and East Asia, and empirically determine what factors determine bilateral financial flows. There are a number of potential determinants for integration that are included in this study: variables measuring gravity (economic size of source and destination country, geographical area of the two, distance between two countries, sharing a border, sharing a language, same colonial origin), trade linkages, and financial conditions in the source or destination country (measured through risk and return, adjusted returns — taking into account exchange rate fluctuations or nonresident withholding tasks—the size of the financial markets, and liquidity). Our estimation equation is given below.

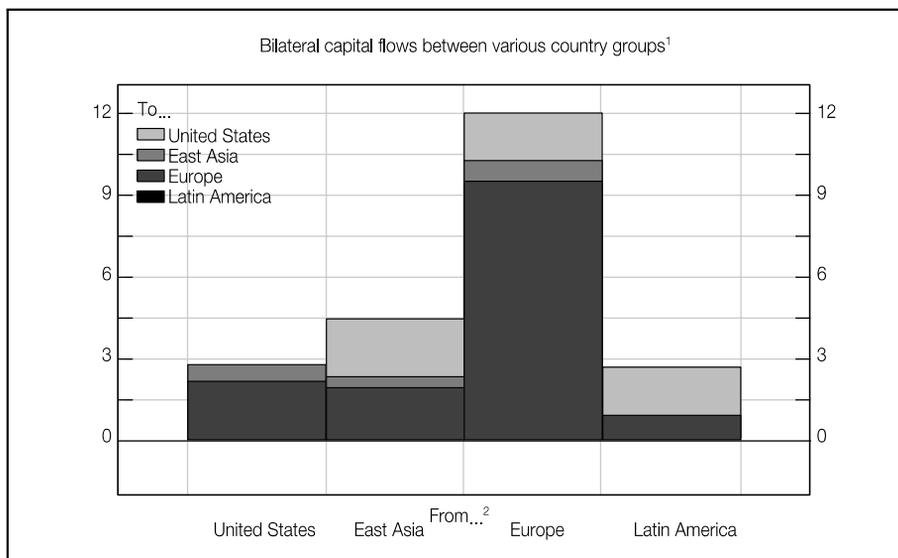
$$\begin{aligned} \ln(x_{sjt}) = & \beta_0 + \beta_1 \ln(GDP_{st}) + \beta_2 \ln(GDP_{dt}) + \beta_3 \ln(dist_{sd}) + \beta_4 Border_{sd} \\ & + \beta_5 Colony_{sd} + \beta_6 Language_{sd} \\ & + \beta_6 \ln(ReRun_{dt} / Return_{st}) + \beta_7 Volatility_{dt} + \beta_8 Tax_{sdt} \\ & + \beta_9 EX_Volatility_s + \varepsilon_{sdt} \end{aligned}$$

Financial integration is a multifaceted concept and can be measured in many different ways. Unfortunately, there is scarce data available on bilateral financial flows, but there is a survey of bilateral financial flows from the International Monetary Fund (IMF) Coordinated Portfolio Investment Summary (CPIS), that features as many as 70 reporting countries. However, it is not without fault for it has geographical limitations, under-reporting, a poor collection method, lack of information on the currency composition of investment, and yearly data from only 2001 to 2005. What makes it stronger than other available data comparisons, however, is the differentiation between equity and bonds,

and the fact that there are data for the source financial transaction from as many as six Asian countries, which is the key for understanding why Asian countries invest outside the region even when inter-regional trade has increased. The data cover equity flows, short- and long-term bonds, and stocks and capital outflows. Using these data, we can also include control variables for the “gravity mode” and for trade, as given above.

Measuring flows through these data yields a number of stylized facts. First, as Figure 1 demonstrates, bilateral flows are very small in Asia compared to Europe, and East Asia’s capital flows rarely stay within its region. In contrast, there is much inter-European financial flow.

Figure 1. Bilateral Capital Flows between Country Groupings



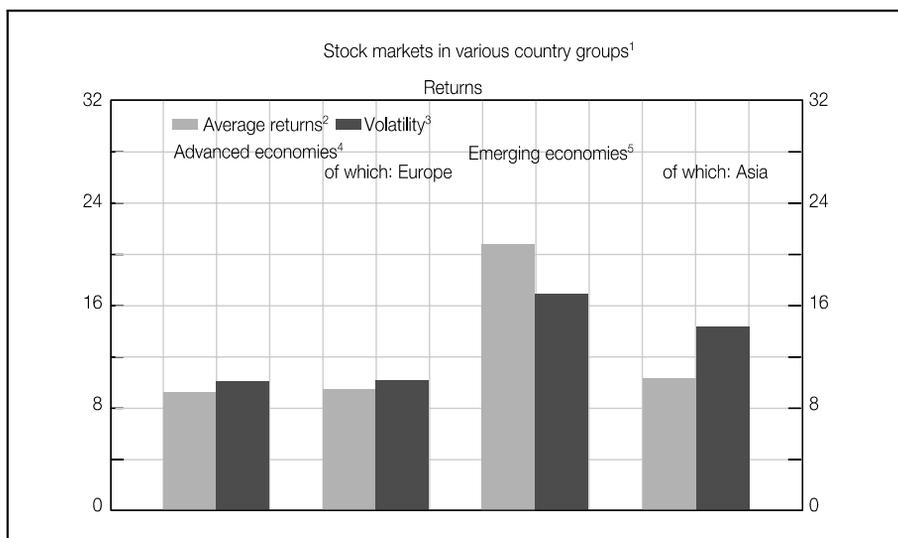
Note: 1. For the period 2002±05; in per cent of GDP of the capital exporting country or country groups.

2. Including only countries contributing to the CPIS.

Sources: IMF, Coordinated portfolio investment survey (CPIS).

Second, we measured the stock markets of Europe and Asia and Figure 2 shows that there is a higher return with more risk in Asia. Stock market capitalization and turnover were also found to be highly correlated.

Figure 2. Stock Markets by Country Grouping

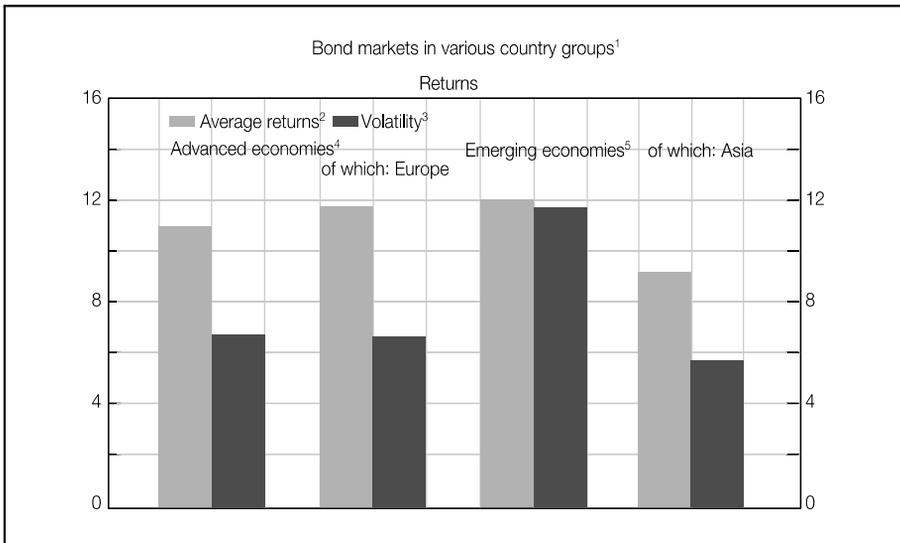


- Note: 1. Simple averages across countries for the average of 2001±06.
 2. Changes in stock prices in US dollar; in percent; annual averages.
 3. Annual standard deviation of monthly averages of series expressed in national currency.
 4. G10 countries, other euro area countries, Australia, Japan, Norway and New Zealand.
 5. China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Thailand, Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela, Czech Republic, Hungary, Poland, Russia, Saudi Arabia, Turkey and South Africa.

Sourcess: FIBV, national data

In the short- and long-term bond markets, Figure 3 shows a lower return but more volatility in Asia. There is also little correlation between liquidity and market size in Asian bond markets, which are markets that lack liquidity.

Figure 3. Bond Markets by Country Groupings



- Note: 1. Simple averages across countries for the average of 2001±06.
 2. Bond returns in dollar; in percent; annual averages.
 3. Annual standard deviation of monthly data of annual returns expressed in the currencies issued.
 4. G10 countries, other euro area countries, Australia, Japan, Norway and New Zealand.
 5. China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Thailand, Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela, Czech Republic, Hungary, Poland, Russia, Saudi Arabia, Turkey and South Africa.

Sourcess: JPMorgan Chase; national data, BIS.

The first regression results of the basic gravity model are in Table 1. Many of the variables we tested are significant in determining financial flows, but there is a question of the distance in that namely, increase in distance seems to lead to greater integration. The long- and short-term bond markets have low explanatory power for the differences we have seen and trade is found to have a positive effect on financial flows.

Table 1. Regression Results, Basic Gravity Model

	Equity	Long-term Bonds	Short-term Bonds
GDP of Source Country	0.559*** [0.027]	0.536*** [0.022]	0.221*** [0.029]
GDP of Partner Country	0.579*** [0.027]	0.554*** [0.023]	0.391*** [0.031]
Distance	-0.671*** [0.068]	-0.893*** [0.056]	-0.509*** [0.073]
Border	0.187 [0.318]	0.013 [0.056]	0.236 [0.318]
Colony	0.083 [0.342]	0.036 [0.285]	-0.376 [0.338]
Common Language	0.669*** [0.155]	0.217*** [0.132]	0.502*** [0.167]
Observations	6732	8010	2935
R-squared	0.227	0.274	0.186

By adding further variables, we found that, as expected, higher taxes and exchange rate volatility in the destination country discouraged financial flows, while higher rates of return and overall volatility fostered financial integration (Table 2).

Table 2. Estimation with Taxes, Exchange Rate Volatility, Rate of Return, and Overall Volatility

	Equity	Long-term Bonds	Short-term Bonds
Trade Flows	0.538*** [0.046]	0.965*** [0.052]	0.811*** [0.090]
Rate of Return	0.008*** [0.001]	-0.016*** [0.002]	0.023*** [0.004]
Volatility	0.026*** [0.002]	0.050*** [0.004]	0.013 [0.009]
Tax of Destination	-0.050*** [0.005]	-0.013*** [0.006]	0.005 [0.012]
Exchange Rate Volatility of Source	-0.103*** [0.013]	-0.126*** [0.012]	-0.038 [0.034]
Observations	3331	2304	1128
R-squared	0.38	0.44	0.33

For the liquidity tests, we found that differences in liquidity between the destination and source country are positive and significant, and add explanatory power (Table 3).

Table 3. Estimation with Liquidity Tests

	Equity	Long-term Bonds	Short-term Bonds
Trade Flows	0.322*** [0.036]	0.695*** [0.050]	0.532*** [0.092]
Rate of Return	0.002** [0.001]	-0.012*** [0.003]	0.010** [0.004]
Volatility	0.023*** [0.002]	0.051*** [0.005]	0.017 [0.012]
Liquidity of Source	0.610*** [0.024]	0.461*** [0.030]	0.176*** [0.043]
Liquidity of Destination	0.408*** [0.024]	0.229*** [0.030]	0.234*** [0.045]
Observations	4749	1646	827
R-squared	0.55	0.59	0.42

Finally, when we put all the variables together, we found that exchange rate volatility of source and the liquidity of the source destination are very significant in determining financial flows (Table 4).

Table 4. Complete Estimation Model

	Equity	Long-term Bonds	Short-term Bonds
Trade Flows	0.324*** [0.039]	0.652*** [0.059]	0.561*** [0.106]
Rate of Return	0.004*** [0.001]	-0.014*** [0.003]	0.006 [0.005]
Volatility	0.021*** [0.002]	0.046*** [0.006]	0.022* [0.01]
Tax of Destination	-0.050*** [0.012]	-0.017*** [0.009]	0.021 [0.015]
Exchange Rate Volatility of Source	-0.050*** [0.012]	-0.092*** [0.014]	0.005 [0.015]
Liquidity of Source	0.584*** [0.026]	0.440*** [0.034]	0.168*** [0.050]
Liquidity of Destination	0.388*** [0.025]	0.222*** [0.033]	0.212*** [0.049]
Observations	3857	1250	642
R-squared	0.54	0.61	0.38

For developed countries, liquidity and volatility are found to be very relevant, but the rate of return is not, while in developing countries, only the liquidity of the destination matters for emerging country's outflows (Tables 5 and 6). Lastly, Asia matches the trend that is found in developed countries: importance of liquidity and volatility, and insignificance of the rate of return (Table 7).

Table 5. Model Estimation for Developed Countries

	Equity	Long-term Bonds	Short-term Bonds
Trade Flows	0.377*** [0.037]	0.558*** [0.075]	0.577*** [0.132]
Rate of Return	-0.00003 [0.001]	0.004* [0.002]	0.006 [0.007]
Volatility	0.012*** [0.002]	0.010* [0.005]	0.030** [0.014]
Tax of Destination	-0.016*** [0.004]	0.021* [0.012]	0.007 [0.019]
Exchange Rate Volatility of Source	0.257*** [0.072]	-0.157 [0.130]	0.306 [0.248]
Liquidity of Source	0.475*** [0.024]	0.350*** [0.033]	0.110** [0.056]
Liquidity of Destination	0.589*** [0.024]	0.386*** [0.033]	0.215*** [0.057]
Observations	3185	804	483
R-squared	0.63	0.70	0.38

Table 6. Model Estimation for Developing Countries

	Equity	Long-term Bonds	Short-term Bonds
Trade Flows	0.048 [0.085]	0.284*** [0.076]	0.577*** [0.132]
Rate of Return	-0.004** [0.002]	0.008 [0.006]	0.006 [0.007]
Volatility	-0.008 [0.005]	-0.002 [0.009]	0.030** [0.014]
Tax of Destination	0.010 [0.012]	0.001 [0.012]	0.007 [0.019]
Exchange Rate Volatility of Source	0.0001 [0.011]	-0.031** [0.014]	0.306 [0.248]
Liquidity of Source	0.019 [0.062]	-0.09 [0.079]	0.110** [0.056]
Liquidity of Destination	0.435*** [0.073]	0.312*** [0.053]	0.215*** [0.057]
Observations	672	446	483
R-squared	0.18	0.39	0.38

Table 7. Model Estimation for Asia

	Equity	Long-term Bonds	Short-term Bonds
Trade Flows	0.562*** [0.120]	0.650*** [0.113]	0.502** [0.232]
Rate of Return	0.001 [0.008]	0.006 [0.008]	0.016 [0.014]
Volatility	-0.008* [0.004]	0.025** [0.011]	0.038 [0.033]
Tax of Destination	-0.034** [0.015]	0.037* [0.021]	0.030 [0.037]
Exchange Rate Volatility of Source	-0.066 [0.126]	0.186 [0.234]	0.346 [0.303]
Liquidity of Source	0.716*** [0.063]	0.654*** [0.060]	0.244** [0.118]
Liquidity of Destination	0.150** [0.063]	0.200*** [0.056]	0.128*** [0.105]
Observations	653	397	220
R-squared	0.40	0.63	0.23

In conclusion, though preliminary and further robustness tests are required, our results point to Asia's being more financially integrated with the U.S. or Europe than within Asia itself mainly due to illiquid markets. In essence, Asia is not unique: the same is true for the world as a whole. The lack of liquidity in Asian financial markets explains why Asian capital flows towards the major financial markets, superseding gravity variables and trade links. If Asian economic authorities wanted to have more regional financial integration, they should foster bond market development, and in particular, its liquidity. With such low liquidity, there is little interest by investors in purchasing stocks or bonds in East Asia. Other factors that could help foster financial integration are tax treaties to eliminate withholding taxes on regional (non resident) investors, limited exchange rate volatility (given the demonstrated links between financial integration and exchange rate coordination), and greater bilateral trade.

Financial Integration in the Context of Northeast Asia

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This paper examines the question of the potential of financial integration in Northeast Asia, specifically between the countries of Korea, China, and Japan, while taking into account the viewpoints of economic history. Even though these three countries have established a fairly high level of financial development, their position in the world financial market is not commensurate with such a level, and thus, they may be vulnerable to shocks from the world market. Therefore, integration between the three is a timely topic for discussion. This paper takes the following order: first this paper covers the interaction between the financial sector and the real economy. Then, it illustrates the present economic status of China, Korea, and Japan in the world economy, both in terms of their real economy and their financial status. Next the paper covers the strategic implications for financial integration in the region.

If we look at the previous 250 years of economic history, it can be understood through the lens of historical interaction between the financial sector and the real economy. Generally speaking, this perspective is comprised of three themes. First is the establishment of a sound financial sector, especially increase in trade, is an outcome of economic growth, as seen from the successes of Great Britain in the 19th century and the United States in the 20th century. Second, the development of the financial sector supports and underlies the growth of the real economy, as seen from the failures of Spain in the 16th century and the successes of the Netherlands in the 17th century. Third, the discrepancy between the financial sector and the real economy should lead to a period of “correction and hardship,” as seen from Korea and Southeast

Asian countries during and after the 1997 Asian Financial Crisis and the United States in the era of the Great Depression.

An especially noteworthy lesson from the historical study of financial markets is that the health of the financial sector is crucial to the welfare of both the nation and the general public. A good example of this comes from some recent articles in the Korean newspaper, *Chosun Ilbo*, which explained the focus on economic policy throughout the long history of China's economic development. The ideas of Mencius, a thinker from the Warring States period (447-221 B.C.), included how best to provide ordinary people with economic opportunities. However, for over 2000 years, the idea of "big country, small people" was dominant in China. In 1911, there were movements for more freedom in the economy, but this brief flowering was followed by warlordism and civil war. Finally, by the 1980s, China moved towards a system of economic "reform and opening up." Nevertheless, now that China has become a leading world power again, now seems like the right time to revisit the ancient Chinese ideas of "strong people, wealthy nation."

Looking towards the future, it is necessary to cover the key words of the world economy for the 21st century. One is the "development and commercialization of information technology (IT)," referring to an integrated and "smaller" world where only an absolute advantage in production matters. Another is the "globalized world trade," which refers to the creation of international organizations such as the World Trade Organization (WTO), dedicated to improving trade conditions and maintaining sustained growth of emerging market countries. The third is the "rise of regionalism," which describes the growing regional economic cooperation and the rising demand for bilateral trade talks through free trade agreements (FTAs). The final phrase is the "integration of global financial markets," meaning the birth and expansion of enormous financial capitals and the rapid spread of financial risks around the world. The first two are well understood by the three countries in Northeast Asia, but they need to work to incorporate the last two into their respective economic frameworks.

Next, some of the basic economic facts for China, Japan, and Korea are presented. Figures 1A and 1B present the production trends of these countries, both in total production and their respective shares in the world economy. Here, Korea, Japan, and China generate 17% of total global production.

Figure 1A. GDP of the Three Countries

(Unit: USD trl)

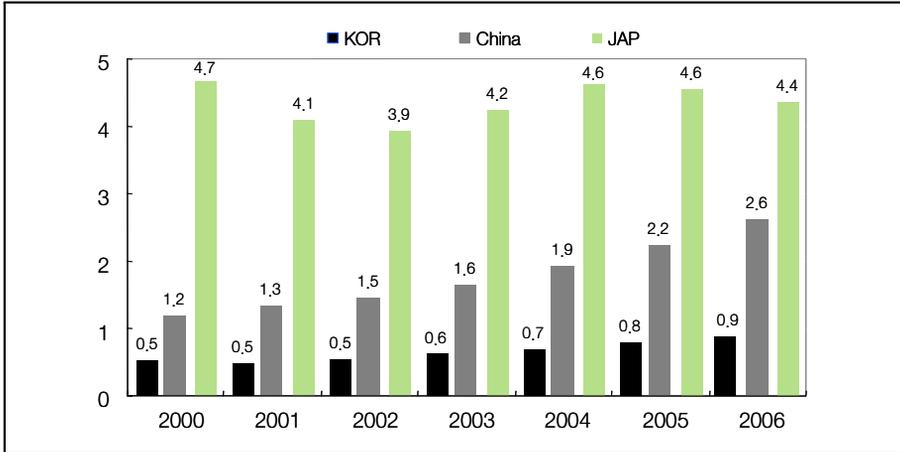
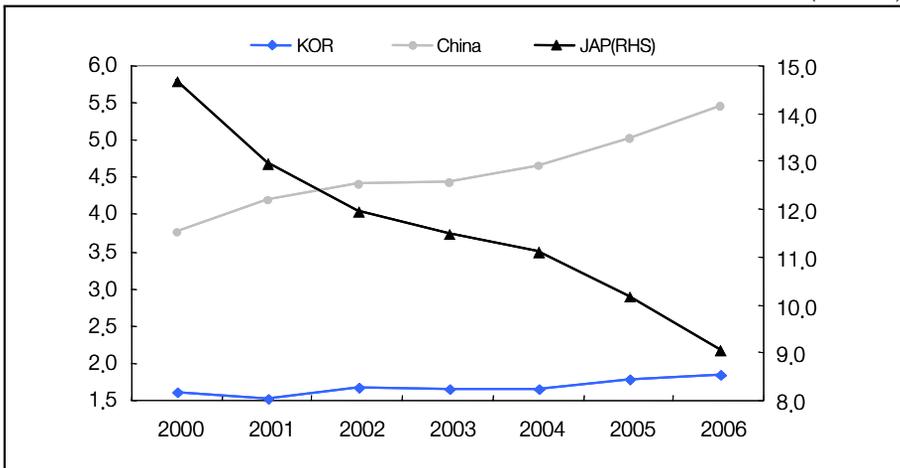


Figure 1B. Three Countries Production Proportion in the World Economy

(Unit: %)



Figures 2A and 2B illustrate the trade volumes of the countries. Together they are involved in over 15% of global trade.

Figure 2A. Trade Volume of the Three Countries

(Unit: USD trl)

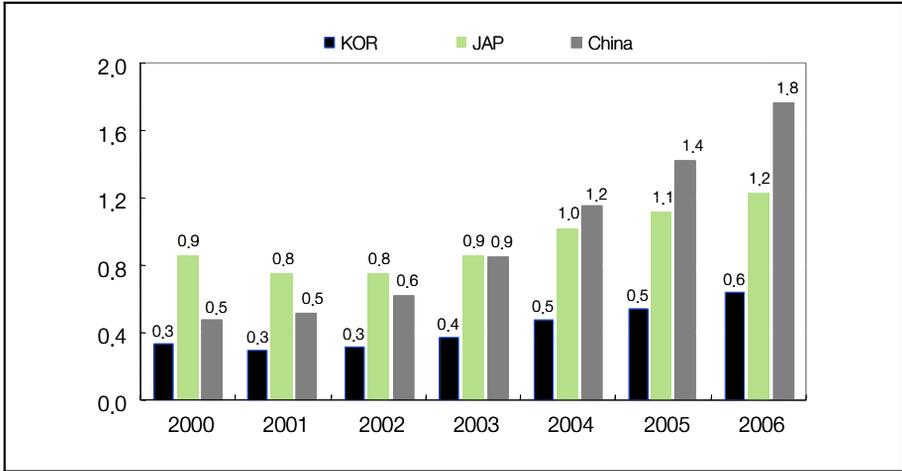
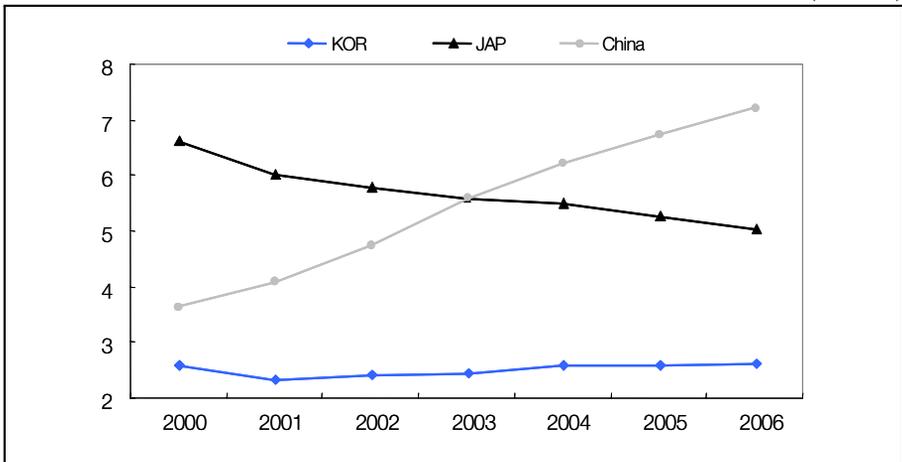


Figure 2B. Three Countries' Trade Proportion in the World Economy

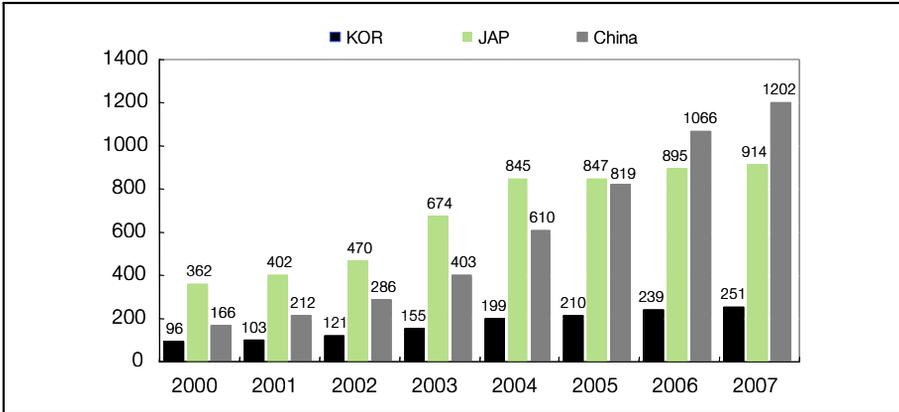
(Unit: %)



There has also been a remarkable increase in foreign exchange reserves of the three countries, as seen from Figure 3.

Figure 3. Foreign Exchange Reserves of the Three Countries

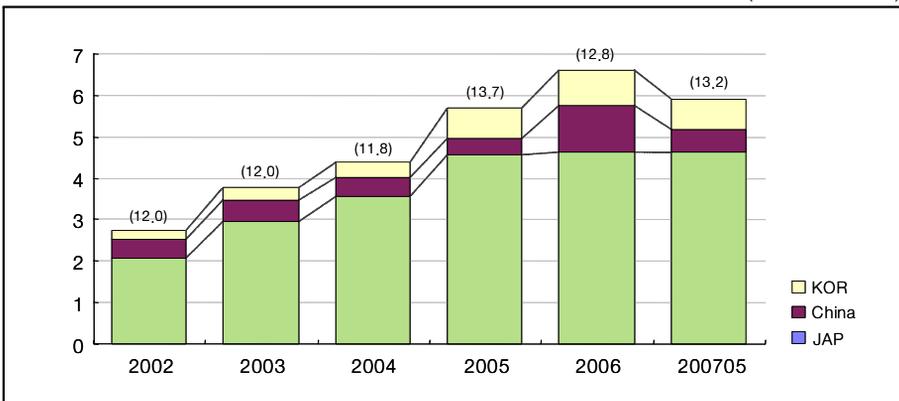
(Unit: USD bn)



However, in contrast to overall growth numbers, the stock markets of these three are relatively smaller, as seen in Figure 4, and their companies are mostly listed in non-Asian global markets.

Figure 4. Market Cap of the Three Countries and their Proportion in the Global Market

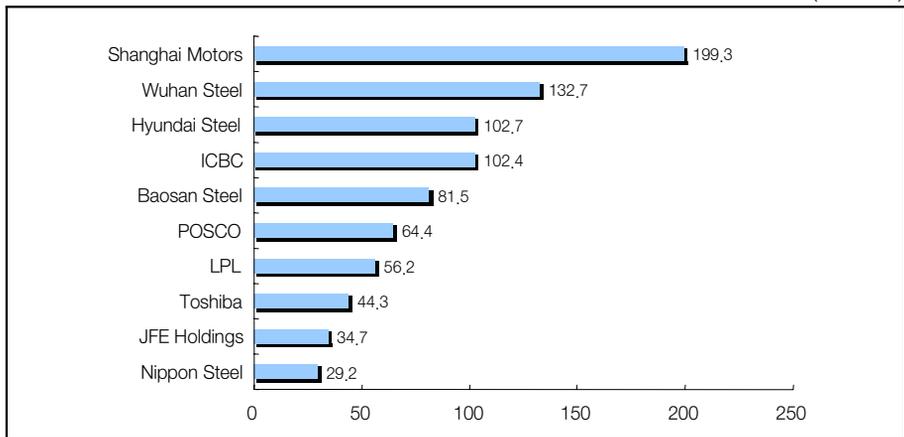
(Unit: USD trl)



Source: World Federation of Exchanges

In terms of the stock market, there is comparably less inter-Asian integration. Likewise, there are no major players in the major financial markets from Korea or China now. However, Asia's best performing companies are all from these three countries, as seen in Figure 5.

Figure 5. Top 10 Performances in Asia Markets (Jan. 2007 - Aug 6, 2007)
(Unit: %)



Notes: POSCO, Hyundai Steel, and LPL are listed on KOSPI. Shanghai Motors, Wuhan Steel, Baosan Steel, and ICBC are listed SSE Composite Index. Nippon Steel, JFE Holdings, and Toshiba are listed on Nikkei 225.

Source: Bloomberg

Let us now turn to examining the strategic implications of financial integration. The general strategy for financial integration in Northeast Asia should include a trade and regulation policy agenda. Of what should such an agenda consist? First, there needs to be more fostering of integration into the global economy, specifically aiming for a level like that of the European Union and working to establish bilateral FTAs. Second, there needs to be more sound financial sectors and the following of international standards, such as the recent cleanup of non-performing loans in China, and accounting, regulation, and risk management in line with global regulations. Third, more overall deregulation is required in financial markets. For example, in the case of Korea, there will be a new legal framework for regulating industries starting from 2009, in what is known as the Capital Market Consolidation

Act. Korea also transitioned to a free-floating foreign exchange system in 1988. Fourth is the continued opening of financial markets and liberalized capital investment between the three countries. This means a complete and effective opening of all financial markets and an expansion of Qualified Domestic Institutional Investors (QDII) and Qualified Foreign Institutional Investors (QFII) in China. Fifth is the creation of organizations for further financial cooperation such as incorporating the ideas for an Asian Bond Market Initiative and continuing an Asian Monetary Fund discussion.

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List of KIEP Publications(2001~09.03)

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- 01-01 Capital Account Liberalization and Macroeconomic Performance: The Case of Korea / Soyoung Kim, Sunghyun H. Kim, and Yunjong Wang
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