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# THE CHINESE YUAN

**INTERNATIONALIZATION &  
FINANCIAL PRODUCTS IN CHINA**

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with THOMAS CHAN

Foreword by  
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## ***Foreword***

The emergence of China as a leading exporter and “factory to the world” was arguably the most significant development of the late 20th and early 21st century. By opening the country to outside investment, and unleashing the potential of China's own entrepreneurs and state-owned enterprises, China's government has been able to achieve in thirty years what many developed countries have achieved over centuries.

China's impressive economic achievements derived from the reforms of the 1980s and 1990s, were accompanied by government's management of the Chinese yuan (CNY) exchange rate and the country's capital account. As a consequence, the rapid growth of the export driven economy, has been accompanied by the United States trade deficit with China increasing from just US\$6 million in 1985 to US\$173 billion for the first six months of 2010.<sup>1</sup> Over this period, the exchange rate to the US dollar has gradually been adjusted from CNY1.50 in 1980 to CNY8.62 by 1994, favoring China's exporters, although more recently it has appreciated to CNY6.66. While in 2005 the peg to the US dollar was replaced by a market floating exchange rate referenced to a basket of foreign currencies, the peg was reintroduced in 2008 in response to the worsening global financial crisis. In June 2010, the CNY was allowed once again to float within a basket of foreign currencies but the boundaries remain tight, with its value significantly below the expectation of western countries.

Despite these measures, the CNY has undoubtedly started down the path of internationalization. Recent steps include the setting up of a number of bilateral currency swap agreements which allow certain countries and areas, including Argentina, Belarus, Indonesia, Malaysia, South

Korea and Hong Kong to exchange substantial amounts of their own currency into CNY at times when they are under strong selling pressure in the international markets. Another step towards internationalization are the pilot schemes for cross border trade financing which allow manufacturers and importers based in southern China to settle their cross border transactions in CNY. This step is important because it allows the manufacturers to transfer their foreign exchange risk to their overseas customers. Meanwhile, Hong Kong has been established as a test center for capital markets activities in CNY through the issue of CNY denominated securities by certain banks in Hong Kong, and China's agreement with the IMF in 2009 that China may use CNY to purchase special drawing rights. All the above arrangements have strengthened the influence of CNY internationally.

While the above steps represent significant progress, there remains a significant length of road to be traveled before the yuan can be called a truly international currency. There are a number of reasons why China's government has not allowed the CNY to float freely and appreciate rapidly. One of the most important is the impact which any significant appreciation in the yuan would have on the already fragile export market which is still suffering from a combination of increasing labor and production costs, and weakened consumer sentiment in the developed west. Over the past few months, the calls for China to make further currency reforms have become even louder. There are also voices from within China who see appreciation of the CNY as being necessary to take some of the pressure off the asset bubbles which are becoming apparent in many areas of the economy, and in particular the property market.

The arguments and counter-arguments concerning the respective merits of relaxing China's currency and capital account controls will be familiar to anyone who has opened a newspaper or watched a financial news program in the

past 10 years. However, in analyzing the current role and performance of CNY dominated products in financial markets in China and overseas, the authors of this book have focused on the lesser-discussed aspects of this debate. Namely that while the years of government's management over the CNY have undoubtedly played an important role in China's recent economic successes, they have also contributed to the relatively underdeveloped state of China's financial markets. If China is to further liberalize its foreign currency markets, and allow the CNY to become an international currency, then it must as a matter of urgency improve the liquidity of CNY denominated financial instruments, and promote further innovation in CNY denominated financial products. With a broader range of CNY denominated financial products, Chinese companies and overseas investors will be able to more effectively control the increased risks which would arise from a relaxation of the controls over China's capital account and the exchange rate. Such innovation will also further support the government's stated strategy of establishing Shanghai as an international financial centre. Financial institutions in Shanghai will also be able to compete more effectively with their counterparts in New York or London.

By providing readers with such an informative overview of the developments in China's financial markets to date, this book highlights the work which still needs to be done, and in doing so provides an effective roadmap for the future direction which further development of CNY-denominated financial products is likely to take.

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**Endnote**

1. US Census Bureau Foreign Trade Statistics.

# ***Preface***

The Seventeenth Central Committee of the Communist Party of China (CPC), held in October 2007, called for the whole party and people of all ethnic groups to vigorously enhance the spirit of reform and innovation, thoroughly pursue rational development, improve the capability of independent innovation, and build an innovative country. The report of the Seventeenth CPC Central Committee pointed out that China should stick to the road of independent innovation with Chinese characteristics, and carry out independent innovation in various aspects of modernization. The report clearly requires the financial sector to sharpen the competitiveness of the banking, securities, and insurance industries.

Sharpening the competitiveness of the financial sector is, in effect, increasing its innovative capabilities. China's economy has recorded remarkable achievements in 30 years of reform and opening-up, with its innovative capability being further enhanced each year. Though the pace of economic and financial globalization has been affected to varying degrees by the international financial crisis, the wheel will continue to move forward. Given the increasingly international status of its economy, China should look to identify gaps and areas for improvement in its current performance, comparing this both with its own historical achievements and with the performance of developed and developing countries.

With the steady growth of China's economy and its higher global ranking, Chinese companies will gradually accelerate their expansion overseas and foreign enterprises will increase their investments in China. This will result in foreign currency business accounting for a higher proportion of China's financial sector. However, as the vast majority of the assets of Chinese financial institutions will still be denominated in Chinese yuan (CNY), the key to financial

innovation in Chinese institutions in the foreseeable future will lie in innovating CNY products. With gradual progress in the internationalization of the CNY, demand for innovative CNY products from both Chinese and foreign investors will continue to increase. Financial innovation is all about innovative ideas, mechanisms, and risk management. Nevertheless, the performance and profitability of financial institutions depends on products and services; so financial innovation is, in effect, product innovation. Therefore, creating innovative CNY products is the key to China's financial innovation.

China made tremendous progress in its economic development in the 30 years from 1978, when the reform and opening-up program began, recording an average annual real GDP growth rate of almost 10 percent. Even in 2009, when the world economy was in the grip of the global financial crisis, it achieved 8.7 percent growth, reflecting the effectiveness and timeliness of the various measures it had taken to combat the worst effects of the crisis.

Besides the great achievements in economic development, China has also made good progress in developing its financial market in the past decade or so, particularly in the inter-bank marketplace, with more and more new products. The first new business in the banking industry was the foreign exchange forward settlement, launched in April 1997, after the People's Bank of China issued "The Tentative Administrative Methods for Renminbi (CNY) Forward Settlement" in January that year. CNY bond forwards, foreign exchange forward trading, foreign exchange swaps, interest rate swaps, and forward rate agreements were introduced in the inter-bank marketplace consecutively from 2005. These new products have developed reasonably well in the past few years, providing market participants with instruments to hedge foreign exchange and interest rate risk.



Despite good progress in product innovation and market development in the financial market, financial futures are still absent from the organized exchanges, and options are absent from both exchanges and the inter-bank marketplace in mainland China. Although the above-mentioned over-the-counter (OTC) products have come into play in the past few years, market liquidity has been rather low, with international weights much lower than the corresponding GDP global weight for each of these products. Risk management cannot be practiced satisfactorily without there being sufficient liquidity for these instruments.

Further, the financial market cannot serve the underlying economy well enough without sufficient development. For example, promotion of the CNY to settle international trade is highly necessary, and the experimental implementation of settlement in 2009 was very timely. Yet, the fact that settlement volume has not been significantly high implies that market foundations, such as CNY foreign exchange risk management, have to be strengthened. Thus, CNY foreign exchange forward and swaps markets need sufficient liquidity for market participants to hedge the related foreign exchange risk.

The financial crisis has taught us many lessons since September 2008. Financial derivative products have been widely blamed for having “caused” the crisis, or at least made it worse. However, we have not seen any serious problems with any derivatives trading in any organized exchanges or most OTC derivatives (other than credit default swaps) worldwide, despite moderate declines in trading values of futures and options trading worldwide from the second half of 2008 and 2009. Futures and options trading in exchanges and most OTC derivative products have well-defined functions in the financial system and the whole economy, so that the underlying economy cannot do well without the necessary financial products and sufficient

market liquidity for these products. China has achieved tremendous economic development in the last three decades and has developed its financial markets significantly. Yet many necessary financial products are still absent from the market and the liquidity of most existing segments of the financial market is relatively low. It is highly necessary for China to accelerate the development of its financial market in order to serve its economy better.

While there have been many studies on different aspects of the Chinese economy, there are comparatively few on the current conditions of the financial market, particularly on the specific status of major components of the inter-bank market. The purpose of this book is to provide readers with a detailed description and analysis of the current status of Chinese financial markets, products, liquidities, and potential problems.

The book is divided into four parts. Part OneI provides an introduction to the Chinese economy and financial markets, covering such aspects as the macroeconomy; the banking industry, and corresponding regulatory bodies; the capital market and corresponding regulatory bodies; and the foreign exchange system and China's international investment positions. Part TwoII introduces the major components of China's inter-bank market; the foreign exchange forward, and swaps markets; the CNY bond forward and interest rate swaps markets; forward rate agreements; and wealth management and other OTC products.

Part ThreeIII covers offshore CNY products, principally those being traded in the Hong Kong Special Administrative Region. These include CNY non-deliverable foreign exchange forwards, CNY non-deliverable options, non-deliverable foreign exchange swaps, and non-deliverable CNY interest rate swaps. It also introduces H-share stock index futures and CNY bonds in Hong Kong.

In Part FourIV, we explore CNY product innovation and market development in line with the increasing internationalization of the CNY in the coming decades. We analyze major international currencies and their major markets, and examine the current status of the internationalization process and the need for risk management. In the final chapter, we round things off by looking at the potential development trends for major CNY derivatives markets that will accompany the gradual internationalization of the CNY over the coming decade.

In April 2009, the Chinese State Council released an important set of guidelines to accelerate its stated intention to build Shanghai into an international financial center by 2020 in line with China's economic status. International participation and the internationalization of the CNY are necessary conditions if this aim is to be achieved. We strongly believe that the Chinese financial market, particularly the inter-bank market, will grow steadily so that its major components will occupy similar weights in the global inter-bank marketplace to the weight that the Chinese economy will occupy in the world economy in the coming decades.

We hope that this book can help readers understand the current status of the major Chinese inter-bank market and its future development. We wish to emphasize, however, that the views expressed are those of the authors alone, and not those of the institutions for whom they work.

Peter G. Zhang  
with Thomas Chan  
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We hereby express our sincere gratitude for their contribution and professional work. At the same time, it is necessary to stress that all the views in this book are expressed in an academic context and do not represent the views of the units or corporations to which the above people belong.

## ***Part One***

# ***The Chinese Economy and Financial Markets***

As the wheel of history has turned, Chinese culture has expanded from the Yellow River valley to the seven seas. At every phase of history, China has had to face other people and their cultures. Numerous contacts and exchanges, whether positive or negative, have brought about changes in the cultures of China and its neighbors. [D]uring this process the “us” and “them” have merged into a new “us.”

*From A Long River of History by Cho-Yun Hsu*

One of the important lessons to emerge from the recent financial crisis is that the entire purpose of the financial industry is to serve its underlying economy. The dangers of allowing the financial industry to stray too far from the needs of its underlying economy have been all too evident over the past few years. With this as our starting point, we begin by introducing the underlying Chinese economy and its major financial markets before examining the major products in the Chinese inter-bank markets.

# ***Chapter 1***

## ***The Chinese Economy***

Since a country's economy involves many areas, a systematic and in-depth description and analysis of China's economy is beyond the scope of this book. In this chapter, we will focus on describing and analyzing the key aspects of the economy, including its tremendous achievements in the past 30 years and its current problems.

### **Population and Human Resources**

Human resources are the most important components of economic development as people are the carriers of culture and genes, the subject of social production, practices and consumption, and the subject of succession, learning and innovation in thinking, science and technology. As long as there are people capable of embracing and learning from outstanding cultures created by peoples around the world, and with the courage to explore new territories, anything is possible.

### **Population Growth Since the Reform and Opening-up**

In the 30 years following China's first census in 1953, the population grew from 594 million to more than a billion. Recognizing the potential problems associated with rapid population growth, in the early 1970s the Chinese



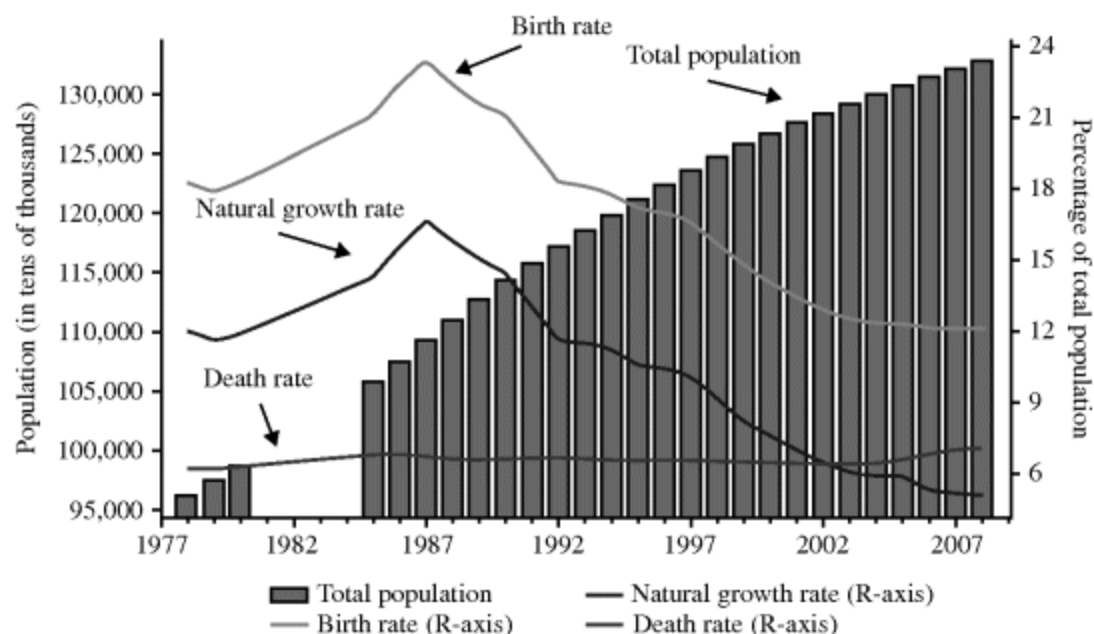
government had begun to search for appropriate measures to control such growth. In December 1973, the State Council Leading Group Office of Family Planning proposed a policy of “late, rare and low” fertility. In September 1982, the Twelfth Central Committee of the Communist Party of China (CPC) confirmed “family planning” as a basic national policy. In the *Constitution of the People's Republic of China* passed by the National People's Congress (NPC) in December that year, the words “China shall carry out family planning and control population growth to tie in with economic and social development” were added. The family-planning policy, which has now been implemented for more than 20 years, has been a significant factor in controlling the growth of China's population.

## **Effectiveness of Family-Planning Policy and Corresponding Problems**

Practice has proved China's family-planning policy to be very successful. As shown in [Figure 1.1](#), after 1980, the annual population growth rate was controlled within 2 percent and, since 1998, it has been within 1 percent, far below the growth rate experienced from the 1950s to the 1970s. However, the family-planning policy has also had many negative effects, the most serious of which is the ageing of the population. The fifth national census conducted at the end of November 2000 showed that the number of people aged 65 and above had reached 88.11 million, accounting for 6.96 percent of the population, and people aged over 60 had reached 130 million, 10.2 percent of the population. By international standards, China has become an ageing society. According to one commentator, “The speed of aging is faster than economic development in China, resulting in the phenomenon of ‘getting old before getting rich.’”<sup>1</sup> A State Council white paper also reveals

that, in the twenty-first century, the ageing of China's population is growing at an annual rate of about 3 percent.<sup>2</sup> By the end of 2005, there were some 144 million people over the age of 60, accounting for more than 11 percent of its population.<sup>3</sup>

**Figure 1.1** China's population and population growth rate, 1978–2008



The ageing of the population will have a profound impact on China's economy, requiring further improvement in the social security and healthcare systems. Economists term the positive role of changes in demographic structure as the “demographic dividend.” An empirical study (Cai) shows that from 1982 to 2000, the demographic dividend contributed about 27 percent to China's economic growth. However, a research report published in late 2006 pointed out that demographic dividends would only contribute to China's economy for another five to 10 years.<sup>4</sup> After the “demographic dividend” phase, China will enter the “demographic burden” phase, many features of which have been seen in the Japanese economy since the 1990s.

## Investment in Education

Since the reform and opening-up in 1978, China has made great achievements in education. In the early stages of the reform period, the government was aware of the problems in the education system during the late stage of the Cultural Revolution (1966–76). In 1977, universities introduced a unified national entrance examination for high school graduates and students who had missed the chance to go to university during the Cultural Revolution. At the same time, a large number of students and scholars were sent abroad to study in developed countries and regions.

In China's history, there have never been so many students admitted to such a wide range of vocational schools, colleges, universities and research institutes as there are now. As [Table 1.1](#) shows, the number of college students at the end of 2008 was nearly 10 times the figure in 1991.

**[Table 1.1](#)** Annual enrolments of university students in China, 1991–2008.

Year	Master's Students Enrolled	Master's Graduates	Undergraduate Students Enrolled (thousands)	Graduates (thousands)
1991	88,128	32,537	2,044	614
1992	94,164	25,692	2,184	604
1993	106,771	28,214	2,536	571
1994	127,935	28,047	2,799	637
1995	145,443	31,877	2,906	805
1996	163,322	39,652	3,021	839
1997	176,353	46,539	3,174	829
1998	198,885	47,077	3,409	830
1999	233,513	54,670	4,134	848
2000	301,239	58,767	5,561	950
2001	393,256	67,809	7,191	1,036
2002	500,980	80,841	9,034	1,337
2003	651,260	111,091	11,086	1,877
2004	820,000	151,000	13,335	2,391
2005	978,610	189,728	15,618	3,068
2006	896,615	219,655	17,388	3,774
2007	972,539	270,375	18,848	4,477
2008	1,046,429	301,066	20,210	5,119

*Source: China Statistical Yearbook (1991–2009).*

Though China's education system has developed rapidly since 1978, there is still a considerable gap in funding when measured against international standards. In 1999, the most recent year for which UNESCO statistics including China are available,<sup>5</sup> total public expenditure on education in China was 1.9 percent, compared to 4.5 percent for Germany and India, 5 percent for Thailand and 5.1 percent for the United States.

While China has undoubtedly made great strides in education in the past 30 years, many acute problems remain, including a lack of emphasis on vocational training. In addition, investment in human capital in different regions, especially the distribution between rural and urban areas in the same district, is uneven and inefficient. Local governments are the chief sources of education funding; however, the subsidies provided by many provinces are very low. Education penetration nationwide is uneven and