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# THE EMERGENCE OF CHINESE CAPITAL MARKETS

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In September 1981, on a visit to Chengdu, the capital of Sichuan Province, this writer told his host that he wanted to see a village. After much consideration, I was taken by car more than two hours outside Chengdu to view a village that was sufficiently prosperous to be observed by a foreigner. The 200-odd families of this experimental village had been allowed to choose their own occupations and market their products on the free market. They had virtually abandoned agriculture and in its place had established over 30 rural industrial enterprises such as brickmaking. They were exceedingly prosperous compared with their neighbors, as demonstrated by a proliferation of new, two-story, 3,000-renminbi houses.

But these villagers had a problem. Their experience gave them no basis for distributing the profits of their numerous overlapping enterprises. Therefore, they had invented what they described at length as the socialist concept of share ownership: villagers could buy shares in whatever enterprises they liked and would receive profits proportionate to the number of shares they owned. After listening for two hours to the elaboration of the socialist concept of share ownership, I joked that I would return in a few years and find them explaining the socialist concept of a stock exchange. Neither my host nor the "peasants" found my joke funny. They knew the stock market to be the arch-symbol of capitalism, and they knew that any association of their socialist shares with a stock market could be fatal.

William H. Overholt analyzes regional affairs for Bankers Trust Securities (Pacific), Ltd., in Hong Kong. This article is based on interviews conducted as part of a research project involving 15 economists from major Hong Kong financial institutions. These analysts prepared position papers and then visited China for ten days on an itinerary to Guangzhou and Beijing organized by C. K. Law of Bankers Trust Securities and facilitated by the Bank of China. The group interviewed 41 experts including senior government officials of Guangzhou and Foshan cities and Guangdong Province and executives of the Bank of China, the People's Bank of China (PBOC), the Guangdong Commission on Foreign Economic Relations and Trade, the Administration of Foreign Exchange Control, the Ministry

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Nine years later, on August 15, 1990, I found myself in the Beijing conference room of Chen Yuan, deputy governor of China's central bank and son of Chen Yun, China's most famous opponent of Deng Xiaoping's market-oriented reforms. Chen Yuan explained the latest stage of China's economic development, which would emphasize, inter alia, the expansion of China's bond markets, the development of a widespread secondary market in bonds, the expansion of foreign exchange markets, the use of market-oriented monetary policy to control inflation, the forthcoming experiment with futures markets to stabilize grain prices, the improvement of China's system of shareholding, and quite notably, the further development of China's stock markets. Such was the condition of Chinese socialism in 1990 under the rule of the orthodox post-Tiananmen tragedy leadership, as articulated by the son of China's most orthodox socialist economic leader: the continued expansion of stock markets was taken for granted, and the leadership was fully committed to building China's economic management around precisely those market tools that are the central symbols of modern capitalism. Researchers from the Hong Kong Stock Exchange and two of Hong Kong's stockbrokers even endeavored to provide China with a rationale for a stock exchange in a socialist system.<sup>1</sup>

The emergence of financial markets is a vitally important aspect of China's post-1979 economic reforms. The emergence of these markets responds to the central problems of the reform and engages all the central ideological struggles: command vs. market, central control vs. efficiency, state ownership vs. private ownership, egalitarianism vs. growth, and party control vs. government control. Barring national disintegration, the expansion of these financial markets is destined to be one of the dominant Chinese trends of the 1990s. And China's economic success or failure will depend heavily on whether these great tools of capitalism can be employed to manage Chinese socialism.

The emergence of capital markets responded to concrete problems created by China's rapid development. Without a share system, enterprises could not distribute their profits equitably. Without modern monetary

of Foreign Economic Relations and Trade, the State Commission for Restructuring the Economic System, the State Debt Management Department of the Ministry of Finance, the Institute of International Finance of PBOC, the Taxation Policy Department of the Ministry of Finance, and various scholars and enterprise managers. The author is indebted to his colleagues and to the numerous officials who agreed to be interviewed, but the views expressed here are the author's own. Citations have been limited; all data are from oral presentations by authoritative Chinese officials speaking on their areas of primary expertise; questions were given to the officials in advance to permit thorough preparation, and their replies were followed up by detailed exchanges with leading economists from a broad range of specialties.

<sup>1.</sup> Cf. Christopher Chong, Iris Cheung, and C. K. Law, "Does China Need a Stock-market?" Securities Journal, Hong Kong, January 1991.

tools, price reforms led to massive inflation. Without treasury bonds, the government could not finance vital infrastructure programs (and socialist subsidies). Without stocks and enterprise bonds, China's successful enterprises could not raise adequate capital to sustain their growth. Without a system of bank loans, rather than socialist grants, the government could not control its capital expenditures and allocate them efficiently.

### Government and Enterprise Bonds

The issuance of government bonds began in 1981. By 1989 the state's need to raise funds for development projects, to finance its rising deficits, and to soak up inflation-causing excess liquidity had stimulated the issuance of 54 billion renminbi worth of government bonds. They were sold to both institutions and individuals. Initially, bonds had uniformly long maturities and low interest rates, but by the latter 1980s a differentiated market was emerging and interest rates were responding to market forces. Instead of ten-year bonds, the market was increasingly dominated by three- and five-year maturities. Responding to inflation, interest rates rose from 8% to 14% per annum in 1988. By the end of the decade, the forms of state-issued bonds had proliferated: government bonds, treasury bonds, special project bonds, and value-guaranteed bonds with interest rates indexed to inflation.

Primary sales of bonds were an obvious way to raise money and created few ideological problems. But financial and economic changes led the holders of bonds to need to trade them, and to trade them at prices reflecting market conditions as well as the face value of the bonds. In a free market, when interest rates rise the principal value of old bonds falls, and vice versa. Beginning in 1988, Chinese authorities decided to allow the emergence of secondary market trading in seven big cities. By June 1988, they expanded this to 54 cities, of which eight were in fast-growing Guangdong Province. But they restricted trading to government bonds, negotiable certificates of deposit, and other instruments approved by the People's Bank of China (PBOC). And it allowed trading only by securities companies, trust and investment companies, and others especially approved by the government.

Beginning in April 1988, the State Council set up secondary markets for bonds in 61 cities, and the PBOC in Beijing reported that it had authorized 34 securities companies and 400 trust and investment companies nationwide to deal in securities.<sup>2</sup> Guangdong officials said their province had about 100 approved companies, which (excluding Shenzhen) did 101 mil-

<sup>2.</sup> Discussion with Jin Jian Dong, director of Financial Administration, PBOC, August 13, 1990.

lion renminbi worth of transactions in 1989 of which 91 million were in government bonds.<sup>3</sup>

Government bonds were followed by enterprise bonds. The 1984 explosion of credit and inflation led to tight government controls that cut off many enterprises from their traditional government sources of capital. Thus, starting in 1985 many enterprises began issuing their own bonds to the public. Guangdong officials presented this as a relatively spontaneous response to new conditions.

The widespread issuing of bonds by enterprises created serious problems. People confused bonds and shares. The instruments were not standardized and were therefore illiquid. And the state objected that they were being used to finance fixed asset investments that were not approved by the state plan and therefore undermined it. In response, Guangdong in 1986 promulgated the "Temporary Regulation to Control Bonds and Shares in Guangdong Province," followed in 1987 by the State Council, which published the "Temporary Regulation of Enterprise Shares and Bonds." There is even an emergent credit-rating process for enterprise bonds. In Shanghai all bonds must obtain third-party assessment of their creditworthiness—the Chinese equivalent of a Moody's rating. Guangdong has the credit department of the PBOC do this, but it is experimenting with a third party rating system. Such assessments of creditworthiness seem destined to displace the current simplistic system whereby the government simply requires a firm to demonstrate that the total value of its bonds does not exceed its net asset value.

While these developments began to regulate the market, they also had the effect of legitimizing it. By beginning to standardize the forms of bonds, these regulations set the stage for the later emergence of national bond markets. Officials emphasized that regulations are still amended frequently and controls are quite imperfect. The government is still overregulating the market: it prohibits bonds that pay interest above levels set by the state or that would finance fixed assets not approved as part of the national plan, as well as trading that would result in a secondary market yield in excess of 15%. But the process of forming bond markets is well underway.

The 1984-85 experience of a credit squeeze and a need to rely on enterprise bonds repeated itself with a vengeance in 1989-90. By this time, the government was more comfortable with the idea and, led as always by Guangdong, encouraged the proliferation of new instruments. Bonds issued by commercial entities to the public now include two kinds of state enterprise bonds, bank financial bonds and negotiable certificates of deposit, and enterprise bonds with short, medium, and long maturities. In

<sup>3.</sup> Interview with Jin Wei Chang, president, Guangdong Branch, PBOC, August 9, 1990.

addition, some enterprises issue bonds to their own workers (quite different from the IOUs imposed by some enterprises in lieu of wages during the credit squeeze).

Central bank officials indicated that by 1990 the total value of securities issued in China since 1981 reached 100 billion renminbi of which stocks constituted 4.2 billion renminbi and bonds the rest. Roughly 60% of the bonds were treasury bonds. Bonds worth 14 billion renminbi were issued in 1989, and the plan for 1990 was for another 45 billion renminbi. Transactions on the secondary market in 1989 amounted to three billion renminbi and 1990 transactions were projected at about six billion. The cumulative amount raised through securities markets (100 billion renminbi) remained only about 10% of the amount raised from banks (1,004 billion renminbi), but it was rising fast. The PBOC indicated that in the near future it plans to approve many more securities companies, expand the use of computers to establish prices, establish more exchanges for securities transactions, and improve and standardize securities laws.<sup>4</sup>

# Management of Aggregate Demand

The shift to financing investment through bank loans rather than state grants and the emergence of securities markets raise the possibility of using market controls on money supply, rather than imposed prices, to manage the economy's overall price level. By 1988 bank loans for capital construction totaled 30 billion renminbi out of total capital construction investments of 150 billion, and the bank loan portion was growing very fast. In addition, the banks' voice in economic management was rising and planners' familiarity with market concepts was improving. This has led China's central bankers to a firm conviction that inflation could be managed through control of the overall money supply (with a focus on M2), even during a process of price decontrol. This concept will probably be the foundation of the next wave of Chinese economic reform. The 1980s wave of reform was aborted economically by excessive inflation; price liberalization, low interest rates, excessive investment, and an explosion of consumer demand caused the inflation, and central authorities tried ineffectually to control it through price controls. Eventually, they panicked and rescinded much of the price liberalization. But China's bankers and planners now believe that controlling M2 through interest rates and fiscal policy can stabilize the overall level of prices during a new wave of decontrol of individual prices. In principle, this would solve the core dilemma of socialist liberalization.

It remains to be seen whether China's decision makers will have the discipline to implement a reasonably tight fiscal policy and use interest

<sup>4.</sup> The national figures and plans are from a discussion with Jin Jian Dong.

rates responsibly. But the conceptual breakthrough certainly shows the path to a successful price reform without disastrous inflation. And the monetary tools do work; so effective were Chinese bonds and banks at soaking up liquidity that the 1990 marginal propensity to save reached 40%. Bank deposits rose from 68 billion renminbi in 1988 to 130 billion in 1989. Success was achieved through market-oriented interest rates; at the height of inflation, nominal interest rates on government bonds rose to 25–28% and real rates to 5–6%. A few years earlier, such rates would have been unthinkable. In January 1991 China's bond markets made another breakthrough with the first issues of commercial paper denominated in foreign currency when a nonferrous metals company issued US\$8 million of bonds denominated in U.S. dollars and Hong Kong dollars. This bridged the liberalization of the bond markets and the liberalization of foreign exchange markets.<sup>5</sup>

## Foreign Exchange Markets

China's foreign exchange transactions are also evolving from a highly controlled, artificially priced system in the direction of a modern, national, market-priced system. Early foreign exchange transactions focused on the import of technology and capital equipment in return for commodity exports. An artificial, wildly overvalued renminbi was perceived as useful for making imports cheap, and if this stimulated an excess of imports, the authorities just banned the imports. Similarly, foreign investment consisted largely of participation in joint ventures; the artificially high renminbi overvalued the Chinese partner's contribution and thereby seemed to give China the better deal. With a few exceptions for high technology, infrastructure, and other high priority projects, all joint ventures have been required to balance their foreign exchange earnings by exporting enough to pay for their imports of raw materials and technology.

Prior to the mid-1980s, China did not participate in international bond markets, but in 1986 it began to issue bonds in the Tokyo market. Subsequently, this has expanded to the extent that total outstanding Chinese bonds in foreign capital markets amount to several hundred million dollars. By late 1990, foreign reserves plus gold totaled about \$30 billion and most of the foreign exchange reserves were invested in foreign government bonds. Bank of China officials indicated that they were adjusting their foreign reserve portfolio by doing foreign exchange swaps on a daily basis. This makes China a significant player in international bond markets and, increasingly, a sophisticated one.

As China's development accelerated, direct borrowing increased and foreign debt came to exceed US\$40 billion. To keep this debt under con-

<sup>5. &</sup>quot;Chinese Rush Dollar Bonds," HongKong Standard, January 21, 1991.

trol, China needed to encourage exports and discourage imports, but an overvalued renminbi did the opposite. Managing imports through direct controls ended up blocking many needed imports or creating lengthy delays in getting them approved. It also encouraged vast corruption. In this situation, China began to learn the same lessons that most other countries in Northeast and Southeast Asia had learned in the previous three decades: to encourage development, one needs to promote exports and discourage imports through a cheaper currency. Hence, China devalued the renminbi twice by over 20% each time, in 1986 and early 1990, moving it much closer to the market rates.<sup>6</sup>

Faced with an apparent scarcity of foreign exchange during its austerity programs, China sought to make more efficient use of existing foreign exchange. It began allowing enterprises to retain a portion of their own foreign exchange earnings instead of turning it all over to the government. Then it introduced small foreign exchange markets that were completely free to find their own levels. Termed "foreign exchange adjustment centers," these markets in major cities allowed ventures in China with surplus foreign exchange to trade with ventures that needed additional foreign exchange at whatever rate the parties found acceptable. Although the rate of exchange was a market rate, the trades occurred under government scrutiny, the acquisition of funds was restricted to enterprises needing them for high priority projects, and the selling of foreign exchange was restricted to funds acquired through legal retention by enterprises. Banks other than the State Administration of Exchange Control were prohibited from engaging in these trades. Despite all the restrictions, the establishment of the centers acknowledged the need for extensive trading at a market rate. It established what the market rate was, and this set a benchmark for prices that affected transactions throughout China in innumerable ways.

Initially, the market rate was significantly different in different provinces because the centers were far apart, supply and demand conditions varied, and arbitrage was strictly limited. But as central authorities came to perceive the adjustment centers as valuable, the centers began to spread rapidly and are now present in every major city. In 1990 Guangdong alone (excluding Shenzhen) had ten adjustment centers and transactions were rising rapidly. Chen Yuan stated that the centers are now handling roughly 30% of all of China's foreign exchange transactions and aiming at 50% within a few years. In November 1990 another major institutional innovation occurred in Shenzhen when 16 foreign banks, one insurance

<sup>6.</sup> The promotion of exports through devaluation works differently—nonetheless with great effectiveness—in China than in free markets. Most trade is denominated in dollars, so devaluation does not make exports cheaper. But it increases the number of yuan the exporter receives and therefore greatly increases the incentive to export.

company, and 17 Chinese state institutions formed an association to handle foreign exchange transactions.<sup>7</sup> The formation of such large-scale arrangements will make market pressures more intense, more connected to foreign markets, and more rational. If such associations form elsewhere, this will increase the likelihood of arbitrage that would cause rates across China to converge.

The practical consequence of Chen Yuan's goal of conducting half of all transactions at a market rate will be to rapidly undermine any efforts to maintain the other half at an artificial rate. Chen Yuan indicated that it was official policy to move the official rate close to the market rate. Although no effort to move toward convertibility has been announced, the logical outcome of these trends would be for China to begin within a few years to think about making the renminbi convertible.

The progress of market-based foreign exchange systems was enhanced by the extraordinary penetration of foreign exchange transactions. In August 1990. Bank of China officials said that private foreign currency deposit accounts with it now total US\$2.1 billion.8 The State Administration of Foreign Exchange Control for Guangdong Province estimated that, excluding the capital account, foreign exchange transactions amounted to 25% of the province's GNP; including the capital account, the figure was 40%.9 Such is the volume of Hong Kong dollar transactions in Guangzhou that an armored car full of Hong Kong currency is transferred every day from Guangzhou to Hong Kong. China's banks began accepting deposits in foreign currency, and in August 1990 banks in Guangzhou were quoting interest rates not just in the major currencies (U.S. dollars, ven, sterling, Deutschmarks, Swiss francs, Hong Kong dollars) but also in such minor currencies as the Swedish krona and the Belgian franc. The rates quoted were very close to international market rates, and the buy-sell spreads were much narrower than in Hong Kong so the customer was getting a better deal in Guangzhou than in cartelized Hong Kong banks.

Guangdong's top bankers indicated in August 1990 that deposits of Hong Kong currency in the province's banks amounted to about HK\$5.5 billion (US\$700 million). Hong Kong dollar cash held by Guangdong individuals may well be of the same order of magnitude.<sup>10</sup> The Hong Kong

<sup>7.</sup> Cf. "Shenzhen Sets Group on Foreign Exchange," Asian Wall Street Journal, November 21, 1990.

<sup>8.</sup> Meeting with Lei Zuhua and other Bank of China officials, August 13, 1990.

<sup>9.</sup> Discussion with Ou Yang Shi Pu, State Administration of Foreign Exchange Control, August 9, 1990.

<sup>10.</sup> The leading authorities on this subject are Anthony K. K. Wong, chief economist of Hang Seng Bank, and John Greenwood, chairman and chief economist of G. T. Management. Their unpublished estimates, derived from statistics on Hong Kong's money supply,

dollar rather than the renminbi is the currency of choice throughout much of this province of 61 million people, and Guangzhou's taxi drivers accept fares in Hong Kong dollars at a uniform market rate that precludes any necessity for bargaining. The Hong Kong dollar plays a much larger role in Guangdong than the U.S. dollar played in Argentina or Poland, but unlike the authorities in Argentina and Poland for most of recent history, China's managers have accommodated the phenomenon (thus far and with notable uneasiness) and tried to adjust to the market rather than fighting it. This is auspicious both for China's financial markets and for its real economy. What this means is that China's foreign exchange system is moving rapidly in the direction of market exchange rates and market interest rates and that, informally, Guangdong Province, with a population the size of the Philippines or Thailand, has moved most of the way to a market foreign exchange system. But free cross-border capital flows will still take a long time.

Other pressures have nudged China in the direction of foreign exchange and foreign investment liberalization, and the enthusiasm for foreign investment has risen recently, not fallen. But recent economic conditions force China to liberalize further if it is to maintain a high level of foreign investment. The predominance of joint ventures prior to 1989 has begun to change. Before the credit squeeze of 1989–90, Chinese firms had adequate credit to enter into joint ventures, but the credit squeeze severely limited the capital available to potential Chinese joint venture partners. Hence, the number of wholly foreign-owned ventures rose disproportionately and Chinese policy accommodated this.

In addition, the requirement that foreign-owned firms and joint ventures balance their foreign exchange requirements has proved burdensome. For the most part, it has been interpreted narrowly: a company's exports of its own production must generate enough foreign exchange to pay for its imports. There have been both formal and informal barriers to satisfying this requirement indirectly. Now, however, firms are encouraged to purchase goods from other firms and export them to earn the foreign exchange, or they can save it by investing in import-substituting industries. Official encouragement of such practices will exert further liberalizing pressures on the Chinese economy. These practices have been discouraged in the past because they threaten to break the existing system of highly subsidized exports balanced by carefully protected monopoly profits. The involve-

are of this order of magnitude but differ by a factor of two from each other. Based on Latin American and East European analogies, there is a possibility that the actual numbers are far higher than any expert has suggested, so it is more appropriate to speak of orders of magnitude than to give specific estimates. The real impact on behavior in Guangdong is better suggested by the qualitative comments than by inherently unreliable estimates.

ment of foreign companies will lead to demands for participation in the subsidized export sectors and for the right to compete with the monopolies. Otherwise, the right to balance foreign exchange by indirect means will prove meaningless.

Thus, in a variety of ways, China has been moving rapidly toward a market system of foreign exchange management. Each market-oriented reform has created immediate benefits that consolidate the reform. And every individual act of market liberalization to eliminate one economic dysfunction creates overwhelming arguments for eliminating other dysfunctions through further liberalization.

#### Stock Markets

China already has two rudimentary official stock markets, in Shanghai and Shenzhen, but they are tiny. Unlisted shares are also traded in quantity in other Chinese cities such as Shenyang, and still others such as the Xiamen Special Economic Zone are planning to develop them. In January 1991 ultra-conservative Prime Minister Li Peng officially authorized the setting up of stock markets in coastal cities so long as they stayed within unstated limits; simultaneously, China's official press articulated evidence that the contract responsibility system had failed to make state firms more efficient and implied a need for more widespread private ownership through stock markets. <sup>11</sup> Less controversially, Chinese officials generally believe that stock markets will permit the mobilization of China's vast personal savings for industrial development.

Chinese officials intended the formal markets of Shanghai and Shenzhen to operate in identical fashion but they have diverged. Shenzhen, opened unofficially in 1988 and officially in early December 1990, has five listed companies and three authorized trading companies. By November 1990 some 200 companies had applied to be listed, but officials said that they were under orders from Beijing to be extremely cautious and to accept only companies that are highly competitive, involved predominantly in manufacturing, and export-oriented. Shanghai, which opened officially on December 19, 1990, after trading informally for some time, has 22 brokers and a computerized trading system. It mainly trades bonds (2,000 Shanghai companies have issued securities) but has seven listed shares and is anxious to use its bond business as a cover to get a real stock market going. Shanghai officials believe that much of the capital for their new investment zone, Pudong, can be raised through the stock market.

<sup>11.</sup> Willy Wo-Lap Lam, "Coastal Cities Get Go-Ahead on Stocks," South China Morning Post, January 7, 1991.

<sup>12.</sup> Data on Shanghai securities are from the Draft Placing Memorandum for the Shanghai Fund Company Limited, issued by Indo Suez Asia Limited on November 21, 1990.

Shenzhen is to be regulated by rules modeled on Hong Kong, with modifications based on Chinese officials' studies of Thailand, Indonesia, and some European countries. In principle, the regulatory system should be quite adequate, but those who are supposed to operate the system have no experience and therefore practice is likely to diverge from theory. Moreover, an entire infrastructure for support of an exchange has yet to be built. For instance, there are no standard accounting practices, no analysts experienced in evaluating companies, and no criteria for establishing the initial offering price of a share issue. In autumn 1990 officials were still trying to substitute a unified exchange for the practice of trading at a number of different locations, or just exchanging shares on the street, but they were not confident of meeting their end-of-1990 deadline for doing so. These problems are serious but by no means insuperable; Hong Kong had four separate exchanges until fairly recently, Manila still has two, and Indonesia still lacks internationally acceptable accounting standards.

Beijing planners and banking officials indicated a consensus on continuation and some expansion of stock markets but considerable diversity as to the pace of expansion. For the time being they are being maintained at an experimental level. Their expansion is still vividly associated with private ownership. Shenzhen officials indicate that the primary long-term purpose they see for the exchange is the partial privatization of state firms. Initially, they foresee privatization of 49% of state firms but indicate that, since ownership would be highly diversified and few Chinese individuals would be wealthy enough to command a significant share of any large firm, in some cases privatization of 80% might be consistent with continued state control. Loss of effective state control of the firms is not contemplated at this time.

Stock market volatility presents both practical and philosophical problems. One senior banker in Beijing characterized regulation of the Shenzhen stock market as a failure because of the raging bull market recently experienced there. (In November 1990 the Development Bank was trading at 69 times its offer price.<sup>13</sup> The weighted share price in Shanghai as measured by the Jing An Index appreciated 300% from April to November 1990.<sup>14</sup>) So long as the supply of shares is tightly constrained, the present overwhelming unsatisfied demand for shares (including 900 million renminbi already deposited with brokers in Shenzhen for future purchases of shares<sup>15</sup>) implies an extraordinary bull market if market forces are in fact allowed to work their way. But a wild bull market im-

<sup>13.</sup> See C. K. Law and Hung Kee Lai, "The Up Coming [sic] of the Shenzhen Stock Exchange," Bankers Trust Securities Research Paper, BTB 434/1, November 15, 1990, p. 3.

<sup>14.</sup> Shanghai Fund Draft Placing Memorandum, p. 26.

<sup>15.</sup> C. K. Law and Hung Kee Lai, "Shenzhen Stock Exchange," p. 7.

plies a later bust as has repeatedly occurred in Indonesia and other budding markets. Yet, Chinese officialdom is determined to try to regulate the market so that it is an unmarred success story and therefore a credible vehicle for future privatization programs. Recent Japanese and South Korean experience shows how difficult it is to wring volatility out of the market even with fairly heavy handed government regulation. The tension between officials' determination and the inevitable volatility of young markets implies some painful learning experiences for both Chinese officialdom and the new Chinese investing class.

In the meantime, all officials said that additional stock markets will be opened in interior provinces, and some offered their private opinion that stock markets would expand rapidly. Some even believe that the Shenzhen market could be opened to foreigners in the near future. (Xiamen plans its market specifically to attract Hong Kong funds into the Zone. 16) On balance, however, the stock markets will only become a vital instrument when enterprise reform has led to widespread private ownership and extensive use of bankruptcies. Without major political changes, such enterprise reform seems unlikely to occur in the first half of the 1990s. Thus, for some years the stock markets will be a tantalizing experiment and symbol but not a central institution of the Chinese economy. This could change after mid-decade, or earlier if certain political changes were to occur.

#### Futures Market

China is also experimenting with a futures market, opening one in Zhengzhou, the capital of Henan Province, on October 12, 1990. Established with technical assistance from the Chicago Board of Trade and a major U.S. grain company, it will initially deal only in wheat but intends to expand eventually into other grains and vegetables. The director general of the Ministry of Foreign Economic Relations and Trade (MOFERT) explained that China was just revitalizing a market that had emerged spontaneously 30 years ago but had been regulated out of existence by the authorities. The market will be entirely domestic but, intriguingly, it falls under the jurisdiction of MOFERT, which also oversees the country's vast grain imports and exports. Officials currently see it primarily as a means for gaining clear knowledge of supply and demand for grain, but they may well discover that it is also an extraordinarily useful management tool.

If it succeeds and spreads, a futures market in primary products could contribute to the stabilization of grain prices and to providing farmers with accurate price signals and thus greater efficiency and confidence. Al-

<sup>16.</sup> Chris Yeung, "Pilot Share Scheme Planned in Xiamen," South China Morning Post, January 3, 1991.

though this is currently the most modest and obscure of China's market experiments, because of the importance of China's agriculture to the economy and to everyday life it could eventually prove to be one of the most significant developments. Its relevance to China's contemporary needs is far greater than that of stock markets, although the latter have received most of the public attention.

#### Overview

Taken as a group, the innovations described herein and others have revolutionized China's financial system and accelerated the reforms of its real economy. While credit rationing is still the primary tool for allocating credit, the emergence of a market-oriented banking and bond system could prove to be the key to making price liberalization consistent with reasonable financial stability—the most vital obstacle to reform of a socialist economy. More broadly, the introduction of market rationality in limited areas has created enormous pressure for its extension into vast additional areas.

What is less evident from the objective evidence of numerical data is that China's discovery of the virtues of financial market efficiency has revolutionized the way whole generations of Chinese officials think about economic life. Chinese bankers and officials now speak the same language as Western economists and analyze problems in accordance with the same market tools. While most are careful to justify stock and bond markets as incremental additions to socialism, recent years have in fact seen something akin to a religious conversion occur among China's educated younger elite. China's leading bankers receive master's degrees in international finance from the school of their own central bank, taking classes primarily in the English language and learning almost exclusively from British and American financial textbooks. The Bank of China has 14,000 of its total 20,000 employees assigned to Hong Kong, where the success of free capital markets is more dramatic than anywhere else in the world. More broadly, the practical experience of managing their large debt, foreign exchange, and domestic monetary positions has taught two generations of those who run China's financial affairs that market methods work. They have studied the concepts, understood them, accepted them, and begun to employ them with considerable enthusiasm—in an environment where this employment must be very creative indeed.

Like a vigorous emerging stock market, the managers of China's finances appear to have established a path that will be painfully volatile but has a firm trend upward and whose long-term direction could only be changed by the most catastrophic political events.