

UC Berkeley

Fisher Center Working Papers

Title

Housing Policy in China: Reducing Barriers to Private Home Ownership

Permalink

<https://escholarship.org/uc/item/38f5h53b>

Authors

Ross, Madelyn C.
Rosen, Kenneth T.

Publication Date

1999

Peer reviewed



Institute of
Business and
Economic Research

University of
California at
Berkeley

FISHER CENTER FOR REAL ESTATE AND URBAN ECONOMICS

WORKING PAPER SERIES

WORKING PAPER NO. 99-267

HOUSING POLICY IN CHINA: REDUCING BARRIERS TO PRIVATE HOME OWNERSHIP

By

These papers are preliminary in nature: their purpose is to stimulate discussion and comment. Therefore, they are not to be cited or quoted in any publication without the express permission of the author.

**MADelyn C. ROSS
KENNETH T. ROSEN**

WALTER A. HAAS SCHOOL OF BUSINESS

**FISHER CENTER FOR REAL ESTATE AND URBAN ECONOMICS
UNIVERSITY OF CALIFORNIA AT BERKELEY**

**Kenneth T. Rosen, Chair
Robert H. Edelstein, Co-Chair
Dwight M. Jaffee, Co-Chair**

The Center was established in 1950 to examine in depth a series of major changes and issues involving urban land and real estate markets. The Center is supported by both private contributions from industry sources and by appropriations allocated from the Real Estate Education and Research Fund of the State of California.

INSTITUTE OF BUSINESS AND ECONOMIC RESEARCH

Carl Shapiro, Director

The Institute of Business and Economic Research is an organized research unit of the University of California at Berkeley. It exists to promote research in business and economics by University faculty. These working papers are issued to disseminate research results to other scholars. The authors welcome comments; inquiries may be directed to the author in care of the Center.

**Housing Policy in China:
Reducing Barriers to Private Home Ownership**

By Madelyn C. Ross and Kenneth T. Rosen

Madelyn C. Ross
Principal
Asia Advisory Services
1811 N. Hancock Street
Arlington, VA 22201-5111 USA
Telephone and fax: 703-243-3723
Email: sgmr@att.net

Kenneth T. Rosen
Professor of Business Administration
Chairman, Fisher Center for Real Estate and Urban Economics
University of California Berkeley
Haas School of Business
602 Faculty Building # 6105
Berkeley, California 94720-6105
Telephone: 510-643-6105
Fax: 510-643-7357

Housing Policy in China: Reducing Barriers to Private Home Ownership

Abstract

Until recently, most of China's urban housing has been built, owned, and maintained by State-owned enterprises or municipal housing bureaus. These public work units rented these apartments to employees at highly subsidized rates. But this system has become very difficult to sustain in the midst of economic reforms forcing Chinese enterprises to become more profitable.

Housing reform has been a topic of discussion and experimentation in China for many years, but the pace of real change has picked up considerably since the mid-1990s. Housing reform is now viewed as an integral aspect of China's ongoing transformation from a welfare state to a more market-oriented economy. While many key price and institutional reforms have yet to be implemented, the outlines of a new housing system in China have begun to emerge.

This paper provides an overview of efforts to transform China's housing system, with a focus on developments in the 1990s. It begins with an overview of existing housing conditions, examining what affordability means in the Chinese context and why it presents such a large hurdle for housing reformers. It then reviews China's efforts to divest State enterprises of their existing housing, to develop new affordable housing, and to make financial tools available to promote home ownership. The paper concludes that these efforts will continue to move forward, although more slowly than official Chinese predictions, because they are inexorably linked to the logic of other economic reforms in China.

Housing Policy in China: Reducing Barriers to Private Home Ownership

China's city residents are on the verge of a major increase in "housing consumption" according to Chinese officials. Some even compare this juncture in China to America in the 1950s – a period when people in large numbers are ready to take the plunge into home ownership. Many economic signs are positive: China's living standards have been rising steadily through the 1980s and 1990s, while wages and savings are at an all-time high. Most urban families already own major consumer durables like color televisions, refrigerators, and washing machines and are ready to make even bigger purchases. According to numerous public surveys conducted in Chinese cities in recent years, a growing number of Chinese citizens are interested in owning their own homes, at least once housing prices come within their reach.

This optimistic scenario is balanced by daunting economic realities, however. Efforts to build affordable and attractive housing have been stymied by an inexperienced construction industry and stifling government regulations. The consumer finance industry is just beginning to develop, and home mortgages require large down payments and high monthly installments that few workers can afford. China's current economic slowdown has complicated matters, leaving many people worried about the stability of their jobs and less eager to put all their savings into housing.

In short, like many of China's economic reforms, the reality of housing reform lags well behind the rhetoric. Nevertheless, in contrast to the period from 1979 to 1994, when housing reform was a decentralized effort that involved as much backtracking as progress, changes in China's housing system have accelerated significantly since the mid-1990s. Housing reform has become a much higher government priority, and is now viewed as an integral aspect of China's ongoing transformation from a welfare state to a more market-oriented economy. There is already a marked increase in housing options, and in the diversity of institutions involved in the housing sector. While many key price and institutional reforms have yet to be implemented, the outlines of a new housing system in China have begun to emerge.

Housing reform has already been underway in China for some twenty years, and it may take twenty more years for a dynamic housing market to develop. On balance, however, we feel that China will continue its move toward a market-oriented housing system. Although the process will occur more slowly than officials predict, significant steps have already taken place. This paper reviews the progress made in the 1990s and the outlook for major new housing policies being proposed and implemented in China today.

Overview

Housing reform has risen to prominence on China's economic reform agenda for good reason. Until recently, city dwellers relied on their employers, or the local government, to provide housing, medical care, and other important social services. The system was based on an implicit social contract – in return for accepting low wages, workers received many basic services in return, at a fraction of their true cost.

As part of this "low income-low expenditure" system, most of China's urban housing has been built, owned, and maintained by public work units or city housing bureaus, for the benefit of their employees or residents. The low rent paid by public housing tenants did not even cover maintenance costs in most cases. As a result, public enterprises have been cumulatively spending as much as \$25 billion a year to subsidize and maintain workers' housing. As economic reforms force enterprises to improve their bottom line, these public entities can no longer afford to be China's chief homebuilders and landlords.

The Chinese leadership hopes that a new housing system will stimulate a construction boom, bringing numerous related economic benefits. In the midst of concern about China's slowing economic growth rate in 1998, for example, officials predicted that new housing construction would boost GDP by about 0.5 percent, based on the assumption of 10 percent growth in the construction industry. A home building boom would also help provide jobs for the many thousands of workers being laid off by failing factories and would have a ripple effect throughout the economy, stimulating housing-related industries from building materials to home furnishings and appliances.

Breaking the link that ties workers to cheap public housing will also promote reform in other areas. An independent housing system would be a boon for labor mobility, not to mention giving people greater personal choice and freedom in their daily lives. And by helping State-owned enterprises (SOEs) become more profitable, housing reform will improve the stability of China's ailing banking system. Up to one-quarter of the loan portfolio of China's State-owned banks may be non-performing, due in large part to the poor credit record of SOEs. Encouraging workers to buy their own housing – or at least pay the full cost of renting – has thus become an important element of the government's drive to reform both SOEs and banks.

At the individual household level, however, not all city dwellers are enthusiastic about the proposed housing reforms. Most people agree in theory with the economic argument that indirect housing subsidies should be phased out and replaced with wage increases, while rents should be raised at least enough to cover costs. (For a dissenting view, see Fleischer and others, 1997.) But workers have come to take their inexpensive apartments for granted, and they consistently resist making higher housing payments. At the other end of the spectrum, members of China's privileged political elite also have misgivings about changing the system that housed them so well in the past.

Even if they have the money to buy a house, potential homeowners in China worry

about the security of real estate investments. China's citizens are not accustomed to thinking of housing as a financial asset, especially when apartments continue to be widely available at negligible rent. Instead, people are wary of investing their hard-earned savings in a home, given the underdeveloped real estate market and fluctuations in China's housing policy.

Another concern is the fact that property rights in China are still uneven and relatively untested. Employees who buy an apartment on subsidized terms from their employer can expect to receive little more than "use rights" at present (see Chen 1996, p. 1082). Full property rights, allowing unrestricted resale, are very rare. To head off speculation, the government generally requires Chinese homeowners to own a home at least five years and to possess a valid "ownership certificate" before they can sell it. These restrictions are being loosened in a few places (notably Shanghai) to encourage a secondary market, but they are still a significant factor in most housing markets around the country. Home sellers also face high taxes and fees – especially if they plan to sell their home without immediately buying another.

To make home ownership an attractive and safe long-term investment, China needs to clarify and strengthen property rights, and create a secondary housing market that allows owners to readily cash in their investment if they so choose. In the meantime, housing is understandably seen by many as a risky investment that might decline in value or prove difficult to sell at a later date.

But the biggest hurdle to increasing home ownership is affordability. Given China's relatively low salaries, high housing prices, and the lack of financial tools to bridge the gap, it may take many years of rent and salary adjustments for the home ownership equation to add up for most families in a more market-oriented system.

A segmented housing market now exists in China. In simplified form, it consists of three distinct tiers. Commercial or "commodity" housing is built for sale to relatively wealthy individuals by profit-seeking developers who charge what the market will bear. Next is "economy" housing, offered to the public at discount prices. The prices of economy units are relatively low because developers of these homes receive special government subsidies. In return, developers of economy homes must accept lower profits. Their profit rates are set by the government and can vary from about 3 to 15 percent depending on the project. The market for economy homes is strictly proscribed: these units can only be sold to middle- or low-income individuals who meet government guidelines. The third housing tier, known as welfare or "benefit" housing, was originally built by State-owned enterprises and occupied by their employees, who paid only nominal rents. Since 1994, some of these units have been sold to the occupants, and a secondary market is now beginning to develop in certain cities.

The problem with increasing home ownership is that commercial housing prices are too high for all but the wealthiest Chinese people. While economy housing costs less, it is generally too expensive for the low- and middle-income people mandated to live there. Welfare apartments, in contrast, are relatively affordable and available, but few people want to actually buy them.

The housing affordability equation in China now looks something like this: the average urban worker earns about \$550 per year. Since most households include two wage earners, the average household income is just over \$1,000/year. In large Chinese cities, the price of economy housing averages 1,500 yuan per square meter, or \$16.50 per square foot. A relatively modest 650-square foot apartment in the low price range would therefore cost about \$10,700, or ten years' wages for a two-income family. Housing on the commercial market is usually priced between 3,000 and 5,000 yuan per square meter, so a similar commodity apartment would cost a family at least twenty years' wages. Houses in most countries are considered affordable at prices of three to five times annual family income. Chinese reformers have stated their hope of eventually achieving a 4:1 ratio between housing prices and family income, but reaching this goal will take many years, at best.

Changing the System of State Enterprise Housing

Public enterprise housing, which has been the dominant form of urban housing in China since the 1950s, is home to almost 300 million people in China (some 100 million workers and their families). These subsidized apartments, which account for up to 80 percent of the housing stock in some Chinese cities, are generally crowded and poorly maintained. Many public apartment units do not have their own kitchen and bathroom units.

In March 1998, Premier Zhu Rongji made the dramatic announcement that China would soon end the distribution of State-subsidized housing. Enterprises would not be allowed to build additional housing units in the future, and would be encouraged to gradually sell off the apartment blocks they already own. Existing tenants would be encouraged to purchase a home, or at least begin paying higher rents that more closely reflect market costs.

This plan ran into trouble almost immediately. Originally Zhu announced that the new policy would be implemented by mid-1998, but he quickly extended this deadline to year-end 1998. Confusion continued into 1999; many enterprises in the middle of building new housing projects were allowed to go forward, and many people were confident that they could continue to obtain enterprise housing at relatively low rates in the future.

State-owned enterprises are eager to sell off their apartment blocks and rid themselves of the financial burden of housing subsidies. Although they have been allowed to sell these units since 1994, few workers have wanted to buy them, even at bargain rates. Public housing is made even less attractive by the relatively complex restrictions governing its ownership and resale. Units with communal kitchen and/or bathroom facilities are especially difficult to sell.

Some enterprises have managed to sell their housing to workers, but they generally had to price the units so cheaply that the government chose to intervene to stop this "sell-off of State assets." Such sales now take place under stricter conditions, in which employees receive discounts based on the number of years they have worked for a firm and lived in the apartment. The sales price must also be above a minimum level that covers

the cost of construction and basic infrastructure services. Basic costs that must be covered in the price of low-income housing vary by project and city. A relatively common formula for the basic price of "economy housing" covers the cost of fees for relocation, design, construction, infrastructure construction and management, loan interest, taxes, and 3 percent profit for developers.

Because of the many problems involved in selling SOE housing, the majority of these apartments are likely to continue to be rented in the short term. Even the relatively modest goal of raising rents for SOE housing presents problems, however. Workers are reluctant to pay higher rents for rundown apartments. They also do not want to give up the long-term squatter rights that they took for granted in the past. Rent reform got off to a rocky start in the late 1980s, when the State Council first set guidelines for rents. However, the guidelines called for a one-time rent increase only, to cover housing costs and depreciation, with no ongoing adjustments. Given the effects of wage increases and inflation in Chinese cities at the time, real rents actually declined for several years after this policy was implemented.

Since the early 1990s, the government has introduced a more gradual program of rent increases. At the beginning of the decade, the average family spent only 1-2 percent of their income on rent. At an average rate of about 0.26 yuan/square meter, a family paid just 6.5 yuan/month for a 25-square meter apartment. By 1998, that same apartment would have rented for about 30 yuan/month. Urban families now pay between 4 and 7 percent of household income for their apartment. Cities are able to adjust rents based on local conditions, so some cities have been able to raise rents more aggressively than others have.

In theory, demand for rental properties should remain strong even with higher rents, due to the large number of people expected to remain renters, as well as short-term demand from the "floating population" of migratory workers now common in large Chinese cities. Beijing alone shelters an estimated 2.9 million transient laborers from other parts of China, many of whom live in illegal "shantytowns" in the city suburbs. A movement is underway to relocate these migrant laborers to legal housing or send them back to their villages.

The government's goal is to raise public housing rents to 15 percent of family income by the year 2000. The 15 percent target falls in the middle of the 10-20 percent range commonly found throughout developing countries, although it is still well below the standard in developing countries, where many families allocate one-third or more of income for rent. But a 15 percent rate would be relatively high in China, where salaries are low and the percentage of income spent on other basic necessities is large and growing. Chinese families currently spend as much as 80 percent of household income on essential non-housing expenses, including up to 50 percent for food. Even modest rent increases are painful for many apartment dwellers, especially with the slowdown in China's economic growth rate since 1997.

Rent increases are the leading edge of housing reform, however, helping to advance the government's housing goals in several important ways. While less dramatic than a major sell-off of State-owned housing, higher rents reduce the burden of housing

subsidies for State enterprises, and get people used to paying a higher share of their income for housing. Rent increases can also promote long-term institutional change in the public housing sector. To effectively end the system of enterprises providing housing for their employees, new funds are needed to build and manage housing. Few private housing investors are eager to step forward as long as rents remain low and owning and operating apartments is a loss-making proposition. Once rents begin to rise, however, investors may take more interest in owning rental properties, thus facilitating the development of a more independent rental housing market. Another deterrent for investors has been high taxes, which amounted in the recent past to about one-third of rental income. The government may lower these taxes to about half their present level to further stimulate the rental market.

The World Bank has played a leading role in helping China find ways to move away from the system of State enterprise housing. Begun in 1994 with World Bank support, the China Enterprise Housing Project was conceived as a model to help enterprises divest themselves of housing units. The project involves the creation of joint stock housing companies, also known as housing management companies (HMCs). HMCs are independent housing institutions that own and manage housing, leasing or selling it to enterprise employees and other city residents. These companies are joint ventures between State enterprises, which contribute equity capital in the form of their housing stock, and local financial entities.

Participating enterprises are expected to raise wages to compensate employees for the loss of their inexpensive housing benefits. The goal is to sell many of the housing units to individuals, with the financial partners to the HMC providing long-term consumer financing at competitive rates. This experiment is one of the first attempts to make the sale of existing enterprise housing more viable in China.

The China Enterprise Housing Project has run into both bureaucratic and financial problems. It has not been strongly supported by the Ministry of Construction, which instead favors plans that involve new home construction. As a consequence, the four participating cities (Beijing, Chengdu, Ningbo, and Yantai) did not receive adequate government funds to support consumer financing, and some cities were forced to put the plan on hold for several years. In the longer term, however, the idea has attracted support from senior Chinese leaders and was recently featured in several national housing conferences. The experiment seems to be gaining credence as a viable model, and additional cities throughout China are now developing similar programs. This type of reform will be needed on a much larger scale if China is to effectively break the link between enterprises and housing.

Building Affordable New Homes

China needs to build at least 240 million square meters of new city housing each year. Demand for this housing comes not just from the rapidly growing urban population,

but also from the many people who want to trade up for more living space. China's approximately 400 million urbanites average only eight square meters of housing per person. Ten million of them average four square meters or less per person. The government would like to see this figure increase to 18 square meters by 2010. The pace of new housing construction has been picking up recently, with more than 300 million square meters of new urban homes built in 1997 and 1998.

The Chinese leadership hopes that people will be relatively eager to invest in new housing developments as compared to older SOE housing. But the country's nascent private housing industry has not done a good job of supplying affordable housing units for China's middle class. Commercial housing in China consists mainly of expensive luxury units. Much of this housing was built during China's first real estate boom of 1992/93. These luxury apartment blocks and villas were intended primarily for members of the foreign business community, and therefore they were located mainly in the Chinese cities with the largest number of expatriates: Guangzhou, Shanghai, and Beijing. These units also became popular with wealthy overseas Chinese looking for a second home, or retirement home, in the "motherland."

Speculation and greed drove the commercial housing market to unsustainable levels in 1993 and the market crashed, leaving China with some 50 million square meters of vacant and unfinished luxury homes. Increasingly, Chinese citizens, rather than foreigners, are buying new commercial apartments, but only the wealthiest Chinese can afford to do this. Ironically, some vacant luxury apartment blocks are getting a second lease on life as "affordable" housing as they are auctioned off or rented at bargain prices, usually at the instigation of banks that are owed money by the developers. But overall, the number of vacant residential units has continued to rise, leaving China with 80 million square meters of vacant residential space by the end of 1998.

The government is now struggling to find the right formula to encourage developers to build "economy" homes for China's middle class. The Comfortable Housing 2000 Project, (better known by its Chinese translation, *Anju*), was the government's first major economy housing initiative, launched in 1995. The original goal was to complete 25 million square meters of affordable housing each year between 1995 and 2000. By 1999, however, approximately half of the 232 cities that had signed up for one or more *Anju* projects had dropped out of the program, and construction was far behind schedule in the remaining cities.

Comfortable Housing projects were meant to be a combined effort of central and local governments. By the end of 1997, \$7 billion had been spent on these projects, with less than half (\$2.5 billion) coming from the central government. The central government's contribution went mainly towards providing mortgages to buyers on preferential terms. *Anju* projects therefore relied heavily on the contributions and good will of local governments and developers. But local governments received little or no compensation for the land they provided for *Anju* housing, and therefore tended to offer their least attractive sites for these modest housing developments. Localities were also expected to reduce taxes and construction fees for the projects, as well as arrange and provide the necessary

infrastructure and public utilities. For their part, developers faced limits on both construction volume and profit margins. This lack of incentives led to widespread delays and poor construction quality on *Anju* projects.

Sales of these homes are highly regulated and must follow the government's eight-level pricing plan, which includes restricted profits for developers. The price of Comfortable Housing units generally includes a "reasonable" profit for the developers, which varies depending on the specific project's commercial component. The government's goal was to keep the price of *Anju* apartments 30-40 percent below commercial rates. The price of *Anju* homes therefore varied considerably around the country, in line with wide differences in commercial prices. In Beijing, the average price of an *Anju* apartment was 1,300 yuan per square meter (\$14.50 per square foot) in 1996, less than half the city's average private market price. In less expensive cities, rates of 1,000 yuan per square meter (\$11 per square foot) are more typical of *Anju* housing. The average price of "commercial" housing throughout China in 1998, in contrast, was 2,200 yuan/sm (\$25/square foot), although it can run as high as 16,000 yuan/sm in parts of Beijing and Shanghai.

Even though the price of *Anju* apartments was kept substantially below the market rate, units did not sell well. Only about 20 percent of the units were sold at prices that covered cost in the project's first two years, and some 3.4 million square meters of *Anju* housing were vacant. Poor locations and shoddy construction deterred many buyers. More important, many of the middle- and low-income people for whom this housing was intended simply couldn't afford it, even at discount prices.

As a result, many who moved into *Anju* apartments received them virtually free because they met China's "house-poor" standard – officially defined as families occupying less than four square meters of housing per person. "House-poor" families receive first priority in the allocation of Comfortable Housing in an effort to relieve the most severe overcrowding in China's cities. Both Beijing (with an estimated 53,000 house-poor families) and Shanghai (with 72,000 such families) expect to house all of them in *Anju* apartments by the year 2000.

The Comfortable Housing project has fallen significantly behind construction targets, with just 15 million square meters of housing completed in the first two years. Even if they were to meet its original construction goals, *Anju* would provide only 150 million square meters of affordable housing by the year 2000, or just 5 percent of China's basic housing needs over this period. Because it failed to provide adequate incentives to builders and local governments, and failed to offer consumers an attractive product at a price within their reach, the Comfortable Housing plan has not provided the answer to China's long-term affordable housing needs.

The government is now seeking a new approach to affordable housing. The economy housing plan begun in 1998 seeks to correct some of the mistakes made in the *Anju* program. Like *Anju* housing, the new "economy housing" is aimed at middle- to low-income workers. Also like the *Anju* plan, the government will set limits on the price of economy housing. The price will include construction costs, land fees, reasonable infrastructure fees, and limited profits for developers, usually capped at a rate of 6 percent.

But buyers of economy housing do not have to meet the strict low-income guidelines that applied to *Anju* projects. Without such built-in limitations on its market, it is hoped that the demand for these new economy units will be much greater than it was for *Anju* apartments.

In addition, the new program is envisioned on a grander scale. The government launched three major groups of economy housing projects in 1998, involving a total floor area of 212 square meters. This is more than the total amount of Comfortable Housing scheduled to be built over five years. There are early indications that the market for economy apartments is stronger than for Comfortable Housing. In March 1999, plans for another 240 million square meters of economy housing were announced.

The Changing Role of Housing Developers

It is an uphill battle to attract good private housing developers to low-cost housing projects in China. One solution has been to lure a few overseas developers into China to build model affordable housing estates. During China's real estate boom of the early 1990s, foreign property developers, particularly some of the giant firms based in Hong Kong, crowded into China to build luxury real estate. But the crash of the market in 1993-94 left Chinese officials and foreign developers mutually disillusioned. When the Chinese government instituted a host of new rules and regulations to limit real estate speculation, foreign developers largely dropped out of China for a few years.

A few have ventured back to answer the call for affordable housing, however. Hong Kong's New World Development Company was among the first foreign firms in this market, forming a subsidiary in 1995 to focus exclusively on building subsidized housing in China. With large low- to medium-income housing projects underway in at least half a dozen Chinese cities, the company claims to have an affordable housing portfolio second only to that of the Chinese government. Others testing the affordable housing market include Hong Kong giants Cheung Kong and Henderson Land, as well as firms from Singapore and Australia.

Some overseas firms may simply be making a virtue out of necessity, since the Chinese government now requires that 30 percent of each developer's China portfolio be in low-end projects. Yet affordable housing projects are also relatively low-risk – unlike the luxury housing developments of the past, the Chinese government is not likely to let them fail. Some developers even receive a government guarantee allowing them to sell unsold units back to the government at a 15 percent rate of return. And these projects give developers a solid foothold in what is likely to develop into a much larger and more lucrative market in the future.

Overseas firms provide much-needed competition for Chinese builders, whose operations need to be substantially overhauled. For many years, China's homebuilders were mainly "in-house" operations of the enterprise(s) for which they worked. Some of these real estate development corporations (REDCs) have become nominally independent during the 1990s, but most remain at least loosely affiliated with one or more large enterprises. Because homebuilders in China were subsidiaries of large State-owned

enterprises, they took a quantitative, builder-centered approach to housing construction, rather than one that met the needs of consumers.

The Ministry of Construction (MOC) is now trying to make REDCs more quality- and cost-conscious. The MOC estimates that at least 15 percent of new apartments in China do not meet the government's minimum quality standards. The public perception is even worse: According to a recent government survey, 50 percent of people who bought new homes reported that the quality of the homes was mediocre or poor. In 1998 the MOC developed a system for registering property developers and strengthened regulations governing bidding on housing construction projects.

Bureaucratic reforms may help developers to lower construction costs. Under the old system, it took months to get approval for construction plans from the dozens of government agencies involved. Administrative charges and land-use fees averaged 50 to 60 percent of the cost of new homes in China. Infrastructure and public service facilities added another 10-20 percent to the cost, while direct construction costs amounted to only about 20 percent of the final housing price. The Ministry of Construction has been reducing land-use fees and municipal taxes since the mid-1990s. These moves were expected to reduce costs by more than 10 percent, although results have been disappointing so far.

Perhaps most important to the long-term goal of advancing private home ownership in China, the nation's home builders, like its housing stock, need to become truly independent of State-owned enterprises. To achieve this goal, new sources of funding are needed for public housing construction. In the short run, the government may funnel tax revenue from commercial real estate transactions, or revenue from public housing rent increases, into affordable housing projects. As reforms take hold and housing projects generate more reliable revenue streams, however, the stock market, foreign investors, and market rate construction loans could all become more important sources of housing funds.

Housing Reserve Funds

Even if housing becomes more affordable and attractive, individual Chinese wages remain too low, and savings accounts too slim, for most workers to afford a home outright. Even in countries with much lower affordability ratios, consumers routinely need financial help to purchase homes. In China, the affordability gap is particularly wide, and the state of financial instruments relatively primitive. China badly needs to improve financial tools to help consumers bridge the gap. So far, two financing programs have been used to promote home ownership: housing reserve funds and a nascent home mortgage industry. There may be other attractive options as the country's financial system develops further.

Housing reserve funds (HRFs) were the first, and are now the most widely used, home-financing method in China. HRFs rely on mandated contributions from employers and employees – typically, each contributes 5 percent of the employee's salary to an earmarked bank account. These funds are usually held in the local branch of the China Construction Bank (CCB), China's main housing finance bank. Fund participants can withdraw their money to make a down payment on a new home, and they are then also

eligible for CCB mortgages on preferential terms.

HRFs were pioneered in the 1980s in the relatively small cities of Yantai and Bengbu, which were chosen by the central government as key sites for housing reform experiments. Shanghai was the first major Chinese city to establish an HRF, in 1991, and other large cities soon followed suit. HRFs are now used in more than 100 cities throughout China, and they have accumulated some 40 billion yuan (\$4.8 billion) in funds.

Shanghai boasts not only China's oldest, but also its largest and most successful HRF, known as the Shanghai Provident Fund. By 1998, the Shanghai fund topped 18 billion yuan and had more than 4 million participants, so Shanghai alone accounts for almost half the HRF funds in the nation. Since 1997, Shanghai has raised the mandatory contribution rate from 5 to 6 percent, and has been able to lower the required minimal housing down payment from 30 percent to 20 percent of the purchase price.

The HRF system has several serious drawbacks, however. The average worker's fund accumulates just 1,500 yuan a year, far short of the amount required for a down payment. Some enterprises have decided to pool their HRFs and use them as a low-cost method of financing enterprise housing projects. Essentially this means that the employees of these enterprises must make mandatory contributions to their HRF and then have little choice but to loan these funds back to the employer. The enterprise then uses the funds to build low-cost housing, which eventually becomes a drain on enterprise resources. Since much of the money has been borrowed by enterprises that are already struggling financially, a high percentage of them can't pay their employees back. The HRF may end up simply going out of business and the employees will lose the money they contributed.

In relatively poor parts of the country, many struggling firms cannot afford to establish HRFs at all. Workers in these regions are thus denied access to this form of savings for home purchases, raising issues of equity and fairness.

Perhaps the most basic problem with HRFs is that they are an employer-based system. By keeping enterprises in an intermediary role between consumers and housing, these funds do not move China's housing reform in the direction it seeks to go. Instead, they reinforce the link between enterprises and housing – at the same time that they divert enterprise resources away from the type of wage adjustments that would help make non-subsidized home ownership more viable.

China's housing funds were modeled in part on the Central Provident Fund set up by the Singapore government. But Singapore's fund has at least two key advantages over those in China. First, Singapore offers an affordable (and attractive) housing stock to potential purchasers – something that is still largely lacking in China. Second, Singapore has a well-developed mortgage system to use in conjunction with these funds. The impact of housing funds in China is thus tied in part to the second major home financing effort: developing better home mortgages.

Home Mortgages

Mortgages are the second major method used in China to finance home purchases.

But the home mortgage industry is still new and Chinese banks are inexperienced with consumer financing. For most of the ten years that they have been available, the typical home mortgage offered by a Chinese bank has required too large a down payment and too rapid a pay back period to be of any practical value to most Chinese. In many cases, a potential borrower also had to keep funds in the bank for a year before becoming eligible for a mortgage. Not surprisingly, few Chinese citizens actually took advantage of these mortgages. Those who did were largely private business owners, or employees of foreign-funded enterprises offering special incentives to enable their workers to buy a home.

The government is now trying to spur the home mortgage industry with infusions of cash and an increase in the level of competition among banks providing mortgages. The People's Bank of China (PBC), China's central bank, is increasing the money it provides to several State-owned banks for the purpose of improving the terms and availability of their mortgages. In early 1997, PBC made \$1.2 billion available to banks to enable them to lower interest rates on public housing mortgages tied to the Comfortable Housing program. In 1998, the PBC increased this amount by ten times – to \$12 billion – and called on banks to bring mortgage lending up to 15 percent of their loan portfolio. State banks will not be able to meet this target for some years, since a mere 0.3 percent of Chinese bank lending went to mortgages prior to 1997.

Some see the shift in emphasis toward home mortgages as a possible life raft for China's banks. The banking system in China rests on a shaky foundation. Mortgages might help banks improve their credit ratings, since consumers are likely to make more reliable loan repayments than failing State enterprises. But banks need to develop methods of monitoring personal income and conducting reliable credit checks. The laws governing mortgages also need to continue to be strengthened (China issued new mortgage regulations in 1992 and 1996), as do contract enforcement laws in general.

The government in 1998 lifted the restriction limiting the number of banks allowed to provide mortgages. Only three Chinese banks were authorized to provide home mortgages prior to 1998, and they are expected to continue to provide most housing loans in the short term. The China Construction Bank (CCB), the State-owned bank responsible for construction finance, began offering home mortgages in the late 1980s. CCB now accounts for about 70 percent of all mortgages issued in China, and was expected to lend more than 30 billion renminbi for this purpose in 1998. The bank also plans to provide 34 billion yuan in loans to the construction industry to build low cost housing. In 1991, the Industry and Commerce Bank of China (ICBC) also began to offer home mortgages. CCB and ICBC were soon joined by the Agriculture Bank of China (ABC), although ABC's total mortgage lending was less than 10 billion yuan in 1998.

With greater competition, mortgage terms are beginning to improve. Until recently, consumers had to make at least a 40 percent down payment and pay back their mortgage within five to ten years. Banks in some regions now offer mortgages with up to 20-year repayment periods and 20-30 percent down payments. A few specialized mortgage institutions are also cropping up, including small housing banks and joint ventures between banks and developers to provide consumers with better financing terms tied to specific housing projects.

To date, China has based its home mortgage drive squarely on the banking industry. But if consumers can meet steady repayment schedules, banks may not necessarily be the best or the only possible intermediaries for home financing. Instead, China may be able to move away from bank-based mortgages and take steps to securitize the mortgage industry. In the long run, allowing the public to hold mortgages (through capital markets) may prove in China, as it has in the United States, to be more efficient than a bank-based mortgage system. As long as a reliable and steady income stream exists for repayment, a mortgage instrument can be devised that will allow the mortgage payment to match household income, and grow with it.

Outlook

Since 1994, motivated by larger economic imperatives, China has been implementing difficult economic measures designed to bring about fundamental change in the provision of housing and other social services. But as with many other aspects of this economic transition, housing reforms are expected to proceed only slowly. For now, most people will remain in their apartments, and simply be forced to pay higher rents. Some will buy their existing apartments, and others will move out to rent or buy elsewhere. But wholesale evictions, a rapid rise in home ownership, and other dramatic scenarios are not likely to be part of the picture.

Major compromises in the pace and scope of housing reforms will continue to be required to accommodate intractable economic realities. In coming up with practical policy measures, the government will have to retain some unwanted elements of the old system for now, leaving the country with a transitional housing system. There are at least three important areas where compromises are required. First, instead of moving directly to an independent housing market by severing the link between housing and employment, employers will remain as intermediaries in the housing market at least for the short term. Another compromise will be accepting that the economic fundamentals in most Chinese cities do not yet support a true housing market. Weaning China's housing consumers and producers from government subsidies is going to take more time. To bring home ownership to the middle class, the government will have to help bridge the financial affordability gap for the time being by continuing to provide direct or indirect housing subsidies. A third compromise will be allowing sharp regional housing differences to continue and perhaps even increase. Cities like Shanghai and Shenzhen will pioneer the most advanced housing reforms, including the establishment of new housing and banking institutions. The rest of the country will follow suit as it can, with many localities struggling simply to institute reasonable rent increases.

Even with strong central government backing, changing China's deeply entrenched welfare housing system is a slow and difficult process. Housing reform cannot be separated from the larger processes of change in China's economy, in which the all-encompassing State welfare system is being slowly replaced by more market forces. Previously, employers were responsible for their employees' social security, housing, and medical care.

Chinese families now have many new freedoms: freedom to change jobs, move to a new city, buy a home, and so on. But these freedoms bring huge new financial obligations for individuals who exercise them, who must provide for their retirement, pay a mortgage, and pay for their own health care. In the final analysis, housing reform will be driven by the dynamics of the economy and the job market as much as by housing policy decrees.

The transformation of China's housing system requires complex institutional changes and market reforms. If China moves too fast toward marketization of housing, it could greatly exacerbate housing problems and risk igniting social unrest. Housing reform is made more complicated by the economic downturn that has spread throughout Asia since mid-1997. Struggling enterprises can ill afford to raise wages, and workers whose jobs are threatened are far less likely to voluntarily take on the financial obligations of a mortgage. Promoting home ownership is a long-term process. Even dedicated housing reform officials expect that it will take another ten to fifteen years to see significant results.