Characterizing East Asian Home Ownership: Examining the Significance of Diversity in Housing Systems

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Introduction

The notions of 'homeowner society' and 'property owning democracy' emerged in the post-war context of the more economically liberal advanced industrial societies, where household property ownership in the form of owner-occupation was considered a basis for better citizenship, a motivator for economic productivity and consumption, and a bulwark against bolshevism (see Saunders, 1990; Forrest et al 1990). While there has been considerable cynicism, among left wing commentators, regarding the divisive nature of state promoted privatistic home ownership, during recent decades it has become embedded and normalized within many advanced Western societies as a 'natural' and 'ideal' tenure, and has been argued to have underpinned the legitimation of state withdrawal from welfare provision (see Kemeny, 1981, 1992; Doling and Horsewood, 2002). The English speaking or Anglo-Saxon societies of North America, the British Isles and Australasia, (where owner occupation rates range between 64% and 72%), have been particularly associated with a cultural preference towards, and state commitment to, mass home ownership. The socio-political and economic practices of these societies can also be tied together in terms of their housing practices and systems. However, the group of industrialized East Asian societies, or Tiger economies, including Japan (the big Tiger), South Korea, Taiwan, Hong Kong and Singapore, have also demonstrated similar preferences toward owner-occupation, and governments in these societies have actively pursued the expansion of this sector.

Whether or not these two groups of Eastern and Western societies constitute two housing system models, or are variations of a liberal approach to housing market policies, is largely challenged by the level of variation within and between the groups. Nevertheless, there has been some consensus that home ownership policies and practices in the group of Anglo-Saxon societies conform at the level of housing consumption and marketisation policies (Winter, 1994, Ronald, 2005). On the other hand, the East Asian group has radically different approaches to housing policy, finance and provision within it, with each society having strongly differentiated paths towards the realization of home ownership as the majority tenure. While the influence of globalization, especially in terms of the growing integration of finance and markets, has been long debated, the influence of localized factors has substantially mediated uneven patterns of development and diversification in the development of socio-economic processes. Housing has been argued to be a significant factor in this process (Doling and Ford, 2003).

This paper will examine the characteristics of East Asian housing systems in terms of policy regimes in order to assert the extent to which they conform to a characteristic model. There are key points of divergence with Western home ownership systems which have had a normalizing influence in the consideration of housing practices and system processes. A Confucian welfare model, a productivist model, and different types of East Asian welfare model have been developed in order to explain East Asian exceptionalist forms of welfare and state control unfamiliar in Western societies (Jones, 1993; Holliday, 2000; Goodman and Peng, 1996). The reasons for divergence with western models of development have normally been conceived in terms of either culture or the role of the state. While cultural explanations are difficult to support (Esping-Andersen, 1997), the role of the state has been a particular feature of development as East Asian social policy has been primarily driven by the requirements and outcomes of economic development policy (Deyo 1992).

While we consider policy, economic and system based elements, our approach emphasizes a broader relationship between housing, economic growth and state power. We argue that housing has been central in mediating social and economic policy and thus constitutes a central means of understanding patterns of convergence and divergence in this region. Essentially, we are evaluating a model of East Asian home ownership distinguishable from an Anglo-Saxon one, where connections between neo-liberalism and home ownership are realigned with critical outcomes in relations between households, the market and the state.

Figure 1. Characteristics of Anglo-Saxon and East Asian Housing Systems

	Character in Anglo-Saxon Societies	Character in East Asian Societies
Welfare System	Comparatively high spending on social welfare (welfare states), but increasing re-commodification of public services. Characterised as 'liberal' welfare capitalist regimes (Esping-Andersen, 1990).	Low spending on social welfare with provision often focused on economically productive social groups. Emphasis on public goods which enhance private consumption. Characterised as 'productivist' welfare capitalist regimes (Holliday, 2000).
Housing Policy System	Home ownership driven, residualised public rental sectors via 'right to buy' etc (especially UK). Focus on the market and private sector.	Home ownership driven with underdeveloped public rental sectors (except Hong Kong), and subsidies for homeowners. Focus on 'state provision' in Hong Kong and Singapore, and 'selective intervention' in Japan, Korea and Taiwan (Doling, 2002). Top down approach co-ordinated by public corps.
Mortgage Finance	Developed and increasingly competitive private sector loan system with broad class access. Increasing transfer of risks from lenders to borrowers.	Normally a state mediated housing loan system supplemented by family loans and developing private loan sectors. Predominantly upper and middle class access.
Housing Market and Stock	Integrated property market dominated by speculative developers as well as second hand stock	Market strongly driven by rapid development and supply of new build units. Dominated by new apartments and 'scrap and build' units in Japan, and new apartment developments elsewhere.
Land Supply, Construction and Consumption Chain	Land supply and construction dominated by private landowners and developers. Consumption based on market principles and ability to pay. 'Liberal type' (Doling, 1999) unfettered by the state.	State asserts itself at development stage (via 5 year plans) and often controls land supply (directly or via land adjustment) along with speed, location and nature of development. Construction done by private companies and housing sold as market good based on ability to pay. 'Tiger type' (Doling, 1999).
Government Power and Legitimation	Ideologically based, balanced between main competing parties. Property ownership considered a conservative social force that enhances individualism and self-reliance.	Consensus based, dominated by single conservative/soft authoritarian party. Housing sector considered primarily in economic terms, with economic growth forming the basis of state legitimacy.
Social System	Stratified social class system with increasingly fragmented divisions and affiliations. Active civil society and, decreasingly, trade unions.	Symbolically homogenised societies but hierarchically structured and increasingly dominated by urban middle class formation. Often weak or undeveloped social rights, civil society and union power.
Form of Capitalism	Market rational and neo-liberal, based on entrepreneurial elites.	'Plan rational', 'Developmental', based on bureaucratic elite and corporate relations.
Economic & Urban Development	More prolonged process of industrialisation and urbanisation. Sustained pressure on governments to improve housing and social conditions for workers.	Intensive, high speed economic growth, industrialisation and urbanisation, putting substantial pressure on resources and urban space. Governments necessarily focus on economic growth rather than social provision.
Family and Socio-cultural Tradition	Predominantly nucleated families becoming increasingly fragmented. Housing privatism based on principles of individualism and autonomy. Conservative Anglo-Saxon cultural tradition.	Mostly vertically extended families becoming increasingly nucleated and fragmented. Collectivistic social ethos with housing privatism based on family interdependence and self-reliance. Authoritarian Confucian cultural tradition.

Characterizing Home ownership Systems

Following Esping-Andersen's (1990) treatment of welfare regimes, increasing attention has been paid to patterns of owner-occupation in relation to welfare systems and inter-class alliances as the global restructuring of production, employment and flows of finance and power are increasingly felt. This has been linked to home ownership and the undermining of class solidarities in Western neo-liberal societies (Kemeny 2001), where home ownership has been argued to extend the logic of markets to the household level where individuals become bound up with capital relations as property owners and dependence on state provision of public goods is eroded. While there are a number of groups of industrialized societies which demonstrate high levels of home ownership (Southern European countries, including Portugal, Spain, Italy and Greece, demonstrate levels of home ownership at 67% to 80%, and East European societies, including Hungary, Slovenia, Croatia, Bulgaria and Romania, have owner-occupation rates between 84% and 90%), it is the Anglo-Saxon group identified earlier, which fits Esping-Andersen's typology of liberal welfare capitalism regime, that have essentially established an economic-ideological model for the development of private home ownership, housing markets and mortgage financing.

Critically, in terms of housing finance mechanisms the Anglo-Saxon societies have in recent years developed similarly in response to economic forces, and a number of factors have lead to a high level of sophistication in housing financing. Expansion of this sector was also in part due to increasing sector competitiveness as well as the redistribution of risks from intermediaries to borrowers and third parties. Access and flexibility in the market has also been enhanced by; growing numbers of loan insurance mechanisms; valuation systems which are normally based on current market value of the property; high loan to value ratios and long duration loans, and foreclosure laws which allow relatively quick repossessions (Stevens, 2003:1014). Housing markets in the Anglo-Saxon group have thus become more dynamic and volatile following mortgage market liberalization and deregulation, and are characterized by speculative booms and busts with homeowners increasingly carrying more risks.

Despite growing global mobility in finance, however, local credit and mortgage systems have maintained their distinctiveness (Lea et al 1997, Stevens 2003) especially in terms of intermediary systems. What is more significant as a unifying element is that growing demand, financial deregulation and policy commitment to home ownership in Western industrialized societies, led by Anglo-Saxon housing markets and policy regimes, reflect the growing influence of neo-liberal regimes and ideologies in the actions and rationalizations of states who argue for the necessity of greater market freedom and flexibility in the global economic milieu (Doling and Horsewood, 2003).

While the East Asian Tiger economies have embraced home ownership policies, practices of housing finance, provision and consumption operate very differently in each society as housing policy systems have been tightly controlled and structured by the state. The central principle behind housing and social policy has been the goal of stimulating broader economic growth, and enhancing family self-reliance in housing and welfare practices. Another feature of these societies is the undemocratic trend toward soft authoritarian governance as well as the role of bureaucratic elites working closely together with the corporate sector. Essentially, housing and home ownership in these societies has been historically characterized by strong state intervention rather than deregulation and freedom of the market. At the same time, household asset accumulation facilitated by house price augmentation achieved within a market is also prioritized.

(a) Japan

Indeed, there is a striking range of housing policy approaches and pathways between countries, which it is useful to briefly summarize. In Japan the post-war housing system was based on three institutional pillars of the Government Housing Loan Corporation (since 1950), The Urban Development Corporation (initially the Housing Corporation from 1955) and the Public Housing Act (1951). The main focus of policy was to stimulate housing construction and provide access to housing finance for the middle mass of salaried workers. Urban home ownership rates leaped from around 30% before the war to more than 60% by the end of the 1950s. Land and property values spiraled during periods of rapid economic expansion and contributed to the rise of the bubble economy in the 1980s. The public-rental housing sector, along with company housing, was increasingly residualised while subsidy for home ownership expanded (see Hirayama, 2003). Since the early 1990s house prices have been in decline. Only key types of properties in central urban areas show any signs of market vitality. In the 21st century the government's approach has been to extend deregulation and marketisation of housing, which it has sought to achieve by largely abandoning the construction of public housing and withdrawing from the housing loan sector.

(b) Hong Kong

In Hong Kong, alternatively, a substantial public-rental sector was established in the 1950s and 1960s. The expansion of home ownership became a policy target in the 1980s, which was supported by government subsidies and the selling off, to tenants, of public-rental housing units (supported by programmes such as the Home Purchase Loan Scheme and the Sandwich-Class Housing Scheme). While construction of public rental flats has continued (increasing 36% between 1983 and 1999) the growth of home ownership has been more impressive, escalating from 28% of housing in 1981 to 55% by 2001. Private property developers became a significant force in driving the housing system, but were undermined by economic crises in the 1990s. Housing values fell harshly in the late 1990s which particularly destabilized the property assets of households who had bought at the height of the boom (Forrest and Lee, 2003). The housing landscape today appears a collage

resulting from economic and policy shifts. Although the housing market has seen revival in recent years, 30% of the population still lives in public-rental housing. The government has now retreated from its owner-occupation targets and pulled away from home ownership subsidy programmes leaving the housing sector more open to the impact of market forces.

(c) Singapore

Singapore arguably represents one of the most state controlled housing systems within the Tiger group. Five year house building programmes begun in the 1950s and 1960s, focused on the mass construction of public housing in order to achieve economic restructuring and growth, along with the improvement of housing conditions. Through the amended Land Acquisition Act (1959, 1966) the state has been able to acquire any land it deems necessary in the interests of national development, including acquisition on the behalf of private developers (Chua, 1997). A critical aspect of housing in Singapore then, has been the activities of the state in controlling the supply of land and housing, and the provision of public housing as owner-occupied property (on 99 year leasehold (since 1964)) in a monopolized market system. Access to new housing and loan finance is strictly controlled by government specified criteria but has been consistently loosened in order to sustain growth of the sector, which maintains demand, and inflation in market values. The Central Provident Fund (CPF), a forced savings system based on joint contributions of employers and employees, has been a central mechanism in funding the public housing sector, and can be drawn on, based on the level of contributions made, by households to finance both down payments and loan repayments. Critically, while Singapore is dominated by a public housing system and the state mediates supply and finance, as many as 90% of households are owner-occupiers and buy and sell their homes within a market.

(d) South Korea

Again, in South Korea, the government has been a central agent in the housing system. In the 1960s and 1970s housing and social welfare was a minimal concern to the state which directed national resources primarily towards export driven economic growth (Lee, 1990). In the 1980s the number of public built dwellings expanded and by the 1990s just under half of dwellings constructed were provided by the state. Land supply is dominated by the Korean Land Development Corporation (since 1979) which actively acquires and expropriates land for development. Construction is based on a corporatist arrangement with private developers. 5 year construction plans have been based around the principle that each income group requires housing of different size and tenure, resulting in the construction of small rental units for poorer households, and middle income groups having access to larger rental units and owner-occupied housing, normally financed through the National Housing Fund (since 1981). Since the 1990s most public rental housing has been built on the basis that ownership will be transferred within 5 years. Sitting tenants are given the opportunity to buy below market price. Those in upper-middle and higher income brackets are encouraged to purchase homes financed through the private mortgage market and the Korean Housing Bank (since 1967).

In 1995 owner-occupation accounted for around 53% of total households. The home ownership rate is somewhat misleading due to the complexity of the housing system in Korea as Jonsei housing, which accounts for around 30% of housing (1995), resembles a halfway-house tenure between owning and renting (Lee, Forrest and Tam, 2003). Essentially, Jonsei 'renter' households pay a substantial lump deposit (between 30% and 70% of the purchase price of the property) to their landlords in lieu of rent, with the entire sum being returned on vacating. The popularity of this system has largely been supported by the lack of a developed housing mortgage system, but has functioned to facilitate the accumulation of capital for outright purchase for tenants, and provided landlords capital for further investment.

Since the 1990s subsidized home ownership for middle income families has become the main target of government policies over rental housing for those on lower incomes (La Grange and Jung, 2004). However, land and price control regulations in the 1990s were strong and failed to facilitate the provision of an adequate number of affordable homes (Kim and Kim, 2000). Since the financial crisis in the late 1990s the state has relaxed further housing finance and taxation to stimulate housing consumption, perceiving revival in the housing market as way to stimulate economic recovery, although concern over the formation of a property bubble has now arisen.

(e) Taiwan

Taiwan has primarily focused on the policy support of owner-occupation. Before the 1980s there was little concern with social welfare and housing due to economic priorities. Only a few uneven programmes of housing and welfare provision were initiated, targeted at those in government occupations seen as important to national stability. Since the mid 1980s policy has sought to encourage private sector development and provide greater access to housing loans. Government funds have been increasingly used to buy land and facilitate construction as well as provide loans to individual households. Provincial and city governments play a particularly important role in promoting housing development and providing individual housing finance (Chang, 1991). Many of the publicly constructed housing units are built for sale, with buyers also benefiting from loan interest and property tax subsidy. Around 85% of housing is owner-occupied, and housing measures have arguably solved quantitative aspects of housing problems, although middle and upper income groups have been the main beneficiaries and poorer households often face problems of relatively high housing costs (Chen, 1994). A central feature of Taiwan's housing system is the dominance of pre-sale housing, where houses are generally sold in the early phases of planning and construction which reduces purchase costs. The state has extended its subsidization of the owner-occupied housing market in recent years, perceiving it as a means to stabilize and expand the economy after the Asian economic crisis.

Convergence and Divergence in East Asian Housing Systems and Social Regimes

Housing systems in these East Asian societies have become embedded in broader patterns of economic growth and decline, but are strongly differentiated in terms of the role of the state and market. Home ownership is central to each system, but is structured in radically different ways. A critical difference to the Anglo-Saxon model that they all share is their overall approach to the market in terms of housing, as while they ensure that policy prioritizes consumption in the market, either housing supply or finance, or both, is tightly controlled or mediated by government. It is thus the state-market dimension of these home ownership policy systems which diverges most from Western norms. The following analysis of East Asian socio-political regimes sets out the dynamics of housing systems in terms of a convergent East Asian approach to economic growth and social policy. Over the last decades a debate has emerged concerning whether or not a substantive East Asian policy regime exists. Our analysis of home ownership illustrates how the consideration of housing enhances understanding of policy regimes and identifies common functions home ownership realizes despite apparent diversity in system structure.

Any understanding that successful development in East Asian societies has been based on minimalist government in both economic and social spheres is arguably erroneous because all have experienced deep government interventions. For Wade these societies have been economically successful because of the 'government market' in which the state takes a major role in ensuring specific industrial sectors have developed in ways consistent to perceptions of national interests (Wade 1990).

Japan has been a model for this, where principles of government-business cooperation, developed before 1945, underpinned rapid post-war economic development (Morishima 1982). Johnson (1982) refers to this kind of approach as the 'developmental state'. Schaede and Grimes (2003) refer to 'economic nationalism' in describing the mutual co-ordination of policy and markets between government ministries and industrial sectors. In the developmental state, bureaucrats and political leaders are compelled to get on and organize growth using whatever methods are to hand. Henderson and Appelbaum (1992) therefore propose a fourfold classification of industrial societies. Firstly, market ideological countries (for example, the UK and the USA in terms of prioritisation of the free market), secondly, market rational countries (for example, the Netherlands where the market is encouraged but structured by the state to meet social goals), thirdly, plan ideological countries (for example, Eastern Europe, where markets were eroded by state ownership), and fourthly, plan rational countries (like Japan and East Asia, where the state sets national goals and intervenes in order to direct the economy as a whole). Doling proposes a further distinction as both market rational and plan rational societies are characterised by forms of corporatism, but in each the form is different.

Holliday's model of a 'productivist world of welfare capitalism' (2000) attempts to situate the East Asian group of Tigers as a recognizable and independent category within Esping-Andersen's conceptualization (1990), where social policy is strictly subordinate to the overriding policy objective of economic growth. Everything else flows from this: minimal social rights with extensions linked to productive activity, reinforcement of the position of the productive elements in society, and state-market-family relationships directed towards growth (2000:708). While Holliday considers housing systems in these societies as a feature of social policy, he does not consider it a unifying element and indeed identifies it as a critical divergent feature from which he differentiates sub-categories within the regime.

The principle of Confucian or East Asian policy regime works as a unifying concept to the extent that these societies demonstrate a shared state paternalism and a top down processes of economic prioritisation with the government taking a considered and active role in guiding markets. There is considerable variety in the state-market mix and the point at which the state intervenes. At one level a division can be made between one group of societies, including Japan, South Korea and Taiwan, characterized by low social welfare spending (in relation to GDP), and a second, including Singapore and Hong Kong, with a substantially higher degree of spending and state involvement. Deyo (1992) attributes this to degrees of urbanization and corresponding differences in the need for government provision of social services. This is evident particularly in the state involvement in the public housing sector in Hong Kong and Singapore.

Doling (1999), however, demonstrates the nature of this divergence between the two groups is related to the development of housing systems. Singapore and Hong Kong have experienced strong state control over land and high levels of state provision. Public housing has come to dominate both systems although in Singapore public provision has consistently focused on family home ownership through the public leasehold of owner occupied housing units, and Hong Kong has shifted from large scale public renting to owner-occupation through the subsidization of home ownership and public housing sell-offs. Japan, Taiwan and Korea, alternatively, have weaker controls and more selective state intervention with subsidy being used to ensure that the housing needs are met within a market framework. Key differences exist in the dimensions of state-market and private-collective in housing policy and provision. Doling develops a typology of systems within this region (2002). One category emphasizes 'State Provision', and includes Hong Kong and Singapore. Another category features 'Selective Intervention' and is followed by Japan, Korea and Taiwan.

Thus, we need to develop the concept of a distinctive regime that may facilitate the manifestation of a range of policy systems, as there is significant within group variation.

Doling asserts that the newly industrialized societies of East Asia constitute a different type of regime system which can be differentiated in terms of the housing system more generally (1999). The pattern of 'housing provision chains' is what unifies Tiger societies as an ideal type and differentiates them from North American and European types. The 'housing provision chain' approach considers the life cycle of housing from construction through to consumption in each society, where the construction and development of housing has substantial effects on the nature of what is available to consume. In each of the stages, development, construction, consumption, the relationship between state and market has discernable outcomes. Doling identifies three types of chain in industrialized societies. First is 'Liberal' in which markets rule at each stage largely unfettered by the state. Housing is seen as a private good and sold or leased on the ability to pay. Clearly this type reflects the qualities of the Anglo-Saxon-Model. Second is the 'Mainland European type', where the development stage is strongly determined by the state but construction carried out by the private sector. At the end, allocation and pricing are institutionally regulated by principles of need and fairness. Third is the 'Little Tiger type' which applies to the East Asian group, (with each society in the group demonstrating weaker or stronger versions) where the state asserts itself at the developmental stage with highly directive 5 year plans and state control over the economy affecting speed, location and nature of development. Construction is carried out by private companies and housing sold as a market good in terms of ability to pay.

The state's approach to the housing system within the East Asian model begins, therefore, with the consideration of housing as a foundation on which growth is built. Home ownership is considered beneficial in these societies for both economic and political reasons. Politically it generates social stability and legitimacy. Economically it is perceived as a source of national as well as individual growth (Lee and Yip 2001). In housing policy, the construction stage is the preserve of private, profit maximizing companies (subject to economic directives asserted by the state), which thus accounts for the absence of considerations of equity or fairness in housing and rather the ability of individual households to pay in housing consumption (Doling 1999). While this has often been seen to mean that East Asian housing systems follow a market ethos, it is actually the result of the state's control of the market and its influence in the provision of public goods and services.

While East Asian owner-occupation policy appears market driven, it is in fact state guided, and thus interventionist rather than neo-liberal. Henderson (1993) sees the success of the Tigers as being achieved following a neo-liberal non-interventionist model, where the market has been given free reign. Others argue the exact opposite, that governments have been policy active and controlling (Choudhury and Islam, 1993; Morishima, 1982; Wade 1990, Johnson; 1982). Essentially, there is substantial evidence that plan rational regimes are strongly managed by the state who implement carefully laid down targets and resource allocations set out in 5 year plans based on pragmatic considerations rather than the ideology of markets and the minimal state. Schaede and Grimes (2003) describe the predominant feature of Japanese capitalism, the developmental model among the East Asian group, where *guided markets* and *managed competition* proliferate, as non-liberal, or essentially 'illiberal'.

Within this framework welfare approaches are of a very different order to Western welfare states in terms of focus on the provision of public goods which enhance private consumption and economic expansion. By directly facilitating home ownership (which is achieved in a variety of ways in each society, but with the government inevitably directly mediating and subsiding), but delivering it on market terms, the state is effectively exercising plan rationality. What East Asian societies are able to do therefore is provide services and goods (eg education and housing) that facilitate the effectives of family welfare (housing is the biggest family asset and reserve of family wealth which may facilitate other consumption practices, family welfare and retirement) that ameliorate the demand or necessity of social welfare or universal citizenship rights. Essentially, this constitutes home ownership without individualism, state provision without de-commodification, and the maintenance of state power without demands for welfare, rights and greater democratisation. While we agree with Holliday that an economic growth driven productivist regime featuring soft authoritarian and strongly interventionist states can be discerned, housing also forms a unifying element that links regime approaches to household welfare, market based provision and state legitimation.

In the sub-divisions Holliday devises, housing policy is one element that marks out a 'developmental-universalist' type of productivist society from a 'developmental-particularist' type with Japan and Singapore, respectively, more ideal types of each. In developmental-universalist societies some social rights are extended to productive elements of the population creating a kind of aristocracy of labour, whereas in a developmental-particularist society there are no social rights as such, and individual welfare provision is largely promoted among only productive elements of society. In both, social policy is significant alongside the market and families. The critical point of convergence, however, is how housing structures welfare for households, which is not as different as Holliday makes out. In Singapore, housing, in the form of public owner-occupied housing, which is financed through the Central Provident Fund, constitutes the basis of social welfare in terms of providing family assets by which family welfare can be supported. In Japan, although there is more universal social welfare cover, private home ownership provides the basis for the accumulation of family assets which function as the basis of family welfare. Both societies therefore structure a similar aristocracy of labour where those with greater income can generate greater housing assets and, consequently, access better welfare services.

Thus, while the appearance of a public housing system alongside very little other social welfare in Singapore appears very different to Japanese private housing, it functions in a very similar way and is integral to the family welfare system on which minimal state provision depends. The owner-occupied housing programmes in Japan and Singapore facilitate citizens' abilities to protect their accrued assets. Critically, the political morality implied by the system is based on privilege rather than entitlement. The government's role is to ensure an adequate housing system exists by which households can equitably be housed via home ownership. Housing development can largely be left to the private sector. While the state plays a far more prominent role in Singapore by being the main provider of land and housing, in Japan the Government Housing Loan system (which supports the majority of housing purchases) has functioned under similar principles. Despite direct involvement in each case, the government is not necessarily held responsible for household welfare, and thus responsibility for providing broader or more substantial welfare cover is diverted. Home ownership systems in other East Asian societies essentially function along similar principles.

Conclusions

It appears that East Asian societies, while having many diverse approaches and policy structures, demonstrate a shared rationale to housing as the basis to economic growth and the security and welfare of families. Home ownership underpins the overall approach to the 'minimal state' in terms of social policy, although in reality the state is strongly involved and regularly intervenes in order to maintain the integrity of owner-occupier housing markets. Governments have taken leading roles in facilitating the availability of houses to buy and stabilizing housing prices in a market based consumption environment.

The purpose of this paper has not been to identify causal factors or imply home ownership as a determining element in the social regimes of East Asian economies, but to identify what Esping-Andersen refers to as 'salient interactional effects' (1990:29). We have identified the significance of housing provision chains and the role of the state in them, as well as convergent elements in the structuring of self-reliant welfare practices through housing consumption. These are key factors in understanding the role of owner-occupation in these societies and how home ownership differs from Western models and practices.

As in Western liberal economies, homeowners are strongly bound up with the market, leaving households vulnerable to house value fluctuations. This tendency is emphasized in the East Asian context where there is a lack of other social safety nets, and where housing finance and social welfare systems are still maturing. The ability of the state to support economic growth becomes more critical to individual wealth and security. State authority and legitimation thus becomes more grounded in the success of the market and economic expansion, while paternal authoritarianism, shoddy corporatism and the neglect of citizenship and welfare rights are tolerated.

One flaw in the model we have put forward is the over-assertion of a market ethos and economic liberalism in Western home ownership policy systems. Governments have strongly subsidized private housing purchase (via tax relief on mortgages etc) and intervened in the market to ensure the growth of the owner-occupied sector (Kemeny, 1981). The liberalism of liberal regimes in respect of housing is thus overemphasized. While Western states undermine the 'free' market through home ownership orientated policy and subsidy, they may also consider the substantial financial resources owner-occupying households build up and the growing tangibility of housing assets (via equity release, reverse mortgages etc) as a means to support the reduction of welfare services and erosion of state pension provision.

Compared to Western housing systems and social policy frameworks there is still substantial variation in the East Asian group. Essentially, East Asian housing markets are more embedded socially and in the broader structure of economic development. The Asian financial crisis in the late 1990s destabilized housing markets and revealed how vulnerable Tiger economies were to global economic fluctuations, as well as how the openness of real estate sectors enhances susceptibility. The medium term impacts of the economic crisis were variable. Hong Kong appeared most vulnerable, which was enhanced by hot money moments into and out of its open real estate market, and experienced a 60% housing market value decline between 1998 and 2003. Across East Asian societies, housing prices have begun to increase rapidly again since 2003, although the shock of economic crises has made governments and policy makers think more about over-reliance on housing and housing markets as a basis for economic growth.

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Globalization and Localization: Economic Performance and the Housing Markets of the Asian Tigers since the Financial Crisis

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Introduction

The Asian financial crisis in 1997 and 1998 engendered a long spell of economic depression in the region. However, the depression was not uniform across the Asian tigers, namely, Singapore, Hong Kong, Taiwan, and South Korea. Similar divergence could also be found in the housing markets, which are important constituents in these economies. This paper examines these variations. Further, as the economic depression was triggered by the movements of global funds, this paper attempts to explain the divergences in economic performance and housing market conditions by comparing the degree of openness of the tiger economies to global investments and the government measures that have been taken to cope with rapid changes in the housing markets.

The economy and the housing markets since the Asian financial crisis

Table 1 and Figure 1 show that the Asian financial crisis hit the Asian economies by various degrees. Among the four Asian Tigers, the worst hit was Hong Kong, followed by Singapore, and South Korea. Taiwan withstood the storm well initially as it was still able to achieve a high growth rate of 7.3% in 1998. However, general economic depression in the region and other factors has subsequently retarded its economic development in the following years, especially since 2001. Taiwan's economic growth was in fact not as strong as South Korea since the latter recovered quickly from the brief depression in 1998. Singapore managed to bounce back sharply in 2000 and 2004, but in other years experienced either slow or negative growth. Hong Kong went through the longest economic recession period, and only showed more sure signs of recovery when the recession was reversed in 2004 with a growth rate of 5.1%, and a predicted growth rate of 6.8% for 2005.

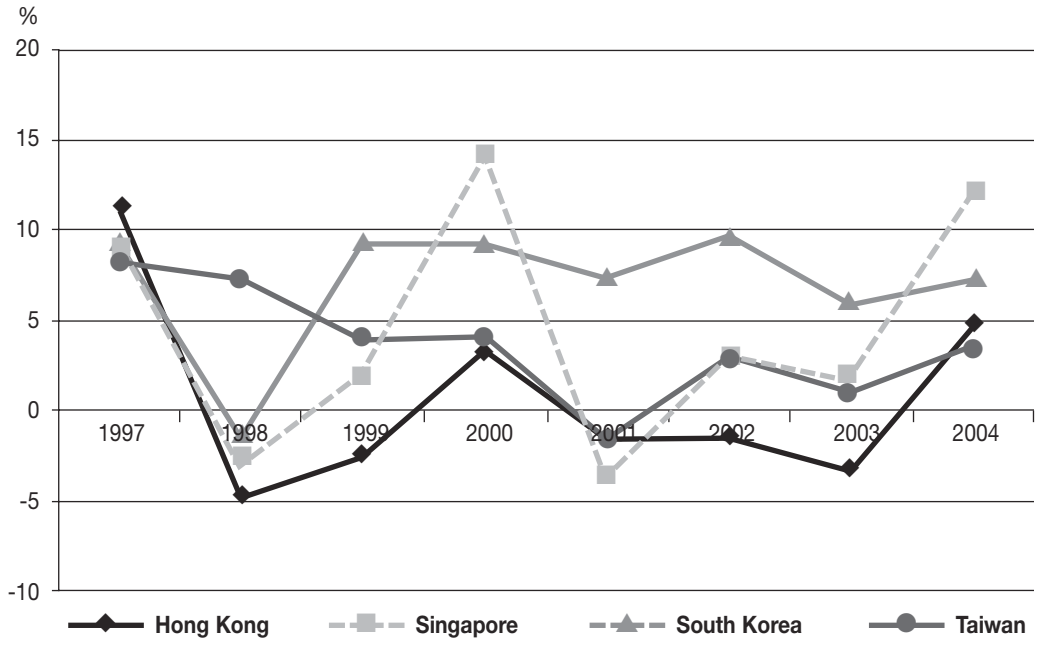
Like the economic growth trends, the property markets of these economies responded differently to the economic crisis. However, as shown in Figure 2, the price trends of the private housing market show similar patterns to those of economic growth rates. The bust period lasted the longest in Hong Kong and the overall price fall was also the greatest, amounting to around 60% between 1998 and 2003. The bust period of Singapore was also considerable, lasting from 1997 to 2002, and recovery since then has been slow. Although with less fluctuation, Taiwan's housing market declined slowly from 1998, and dropped quite significantly in 2001 (Taiwan Ratings, 2005). In contrast, the housing market of South Korea, as indicated by the house price trend, bounced

Table 1 – Growth Rate of Gross Domestic Product (GDP) at Current Market Prices in Asian Countries/Regions (Percentage)

Country/Region	1997	1998	1999	2000	2001	2002	2003	2004
Hong Kong	11.0	-4.8	-2.6	3.4	-1.4	-1.7	-3.4	4.7
Singapore	9.0	-3.0	1.9	14.1	-3.6	3.0	1.6	12.2
South Korea	9.5	-1.4	9.4	9.3	7.5	10.0	5.9	7.4
Taiwan	8.2	7.2	3.9	4.0	-1.7	3.0	1.1	3.7

Sources: Census and Statistics Department, HKSAR Government (2004:398; 2005:402 and 2006); Directorate General of Budget, Accounting and Statistics (DGBAS) of Executive *Yuan*, R.O.C. (2006); Korea National Statistical Office (2005a) and Singapore Department of Statistics (2005a)

Figure 1 – Growth Rate of Gross Domestic Product (GDP) at Current Market Prices in Asian Countries/Regions (Percentage)

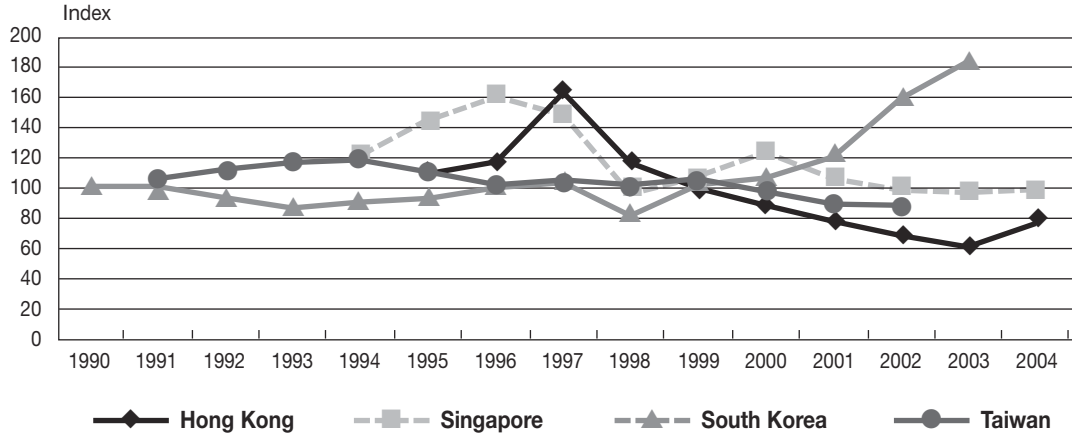


Sources: Same as Table 1

back strongly from the fall in 1998, and overall the average prices of apartments increased by 69% between 1997 and 2003 (Kim, 2004). Thus, there were significant variations among the housing markets of the four Asian Tigers in the wake of the Asian financial crisis. However, by 2004, house prices in all four economies had either stabilized or re-surged, and the housing markets had shown sure signs of recovery.

It is important to note that the fall in house prices did not cause collapses of the financial sector in the four economies owing to housing finance policies, the existence of informal financial sectors and the relatively less developed housing mortgage

Figure 2 – Housing Price Changes in Four Asian Tigers



Notes: Housing Price Indices: Hong Kong 1999=100; Singapore 1998=100; and South Korea 1990=100

Sources: Hong Kong Special Administrative Region (HKSAR) Government (2005:Table 15); Kim (2004:328); Taiwan Ratings (2005) and Urban Redevelopment Authority, Singapore (2005)

Table 2 – Sharing of the Financing Activities in GDP in Hong Kong and Singapore (US Million Dollars)

Country/ Region	1997		1998		1999		2000		2001		2002		2003		2004	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Hong Kong	18,037	10.5	16,197	9.9	18,002	11.3	20,033	12.1	18,833	11.6	18,804	11.8	18,963	12.0	20,527	13.0
Singapore	N.A.	N.A.	10,735	13.1	10,326	12.5	10,299	11.1	10,646	12.4	10,567	12.0	10,732	11.6	11,822	11.1

Sources: Census and Statistics Department, HKSAR Government (2004:398) and Singapore Department of Statistics (2004:63 and 2005c).

Table 3 – Foreign Direct Investment in Four Asian Tigers (US Million Dollars)

Country/Region	1997	1998	1999	2000	2001	2002	2003	2004
Hong Kong	170,141	223,526	403,756	455,231	419,192	336,192	379,538	N.A.
Singapore	86,612	99,609	113,067	125,241	131,784	142,077	140,932	N.A.
South Korea	3,563	4,703	3,227	4,807	4,922	3,643	3,975	5,920
Taiwan	4,267	3,739	4,231	7,608	5,129	3,272	3,576	3,953

Sources: Census and Statistics Department, HKSAR Government (1999:358 and 2004:403); Department of Statistics, Ministry of Economic Affairs, R.O.C. (2005); Korean National Statistical Office (2002:386 and 2005b) and Singapore Department of Statistics (2004:71; 2005b and 2006).

instruments in some cases. In South Korea, the loan-to-value ratio was generally capped at 30%, and only about 10% of the loans had a ratio of over 50% (Kim, 2004). In Taiwan, the down payments averaged around 46%, and home buyers often sought help from close relatives and the informal financial sector (Yip and Chang, 2003). In Hong Kong, the loan-to-value ratio was capped at 70% in the years before 1997 to safeguard possible economic turmoil when the government changed over in 1997. In Singapore, a majority of the home owners (87%) purchased government housing and they usually obtained mortgage loans from a subsidized housing provider, the Housing Development Board. It was also in the government's interests to keep the prices of these subsidized flats buoyant, in order to protect the post-retirement benefit of the predominant owner-occupiers.

Why did economic performance vary?

Openness to the global economy

A myriad of reasons accounted for the varied impact of the financial turmoil on the Asian economies. The most often quoted was the degree of openness of the economy to foreign investment and especially the financial market to global capital. Hong Kong, being the most open economy with the least restrictions on foreign capital, was naturally the most badly hit. In contrast, China, being a closed financial entity, was able to escape from the direct impact of the turmoil. The financial market of Taiwan was also conservative and capital movement was only partially deregulated, and was therefore secure from the regional financial crisis (Hsu, 2001). South Korea was similar although it was relatively more open to foreign investment. Singapore was an open economy but its financial market was less liberalized than Hong Kong.

Tables 2 and 3 also demonstrate the openness of these major Asian economies and the importance of the financial sector and foreign investment to the respective economies. As Hong Kong and Singapore are the financial centres in the region, a comparison of the importance of the financial sector to the economy may offer some clues to the relative economic performance of the two places after the regional crisis. Although in proportionate terms, financial activities accounted for a relatively larger share in GDP in Singapore, the total value of the financial sector in Hong Kong had been over 1.5 times that of Singapore. Thus, a sizable financial and real estate sector coupled with heavy reliance on foreign investment may explain why Hong Kong was more adversely affected by the regional financial crisis. It also rendered the economic recovery of Hong Kong susceptible to external economic conditions, either in the regional or the international markets. In contrast, as the financial services industries in South Korea and Taiwan were less significant, and the finance markets were more highly regulated, they were better sheltered from the shocks of global movements of funds on the local economy. Further, Taiwan had undergone a successful economic restructuring in the early 1990s, replacing the construction industry by information processing, semiconductor and electronics as the driver of growth (Hsu, 2001). Economic revival was therefore less subjected to the cyclical movements in the property sector.

The openness of the real estate sector might also be significant in determining the impact of the Asian financial crisis and the speed of recovery. Hong Kong is again fully open in this regard as local and overseas investors and buyers are not discriminated. As well, no capital gains tax is levied and has not been considered as a possible

measure against speculation. Singapore limits housing purchases by foreigners and foreign-owned corporations to residential premises in buildings of six floors or more and apartments in approved developments (APEC Committee on Trade and Investment, 2003). The housing market in Singapore is small and capital gains tax or similar tax measures may be used when speculation gets out of hand. Taiwan imposed restrictions on overseas real estate investors and buyers regarding the types and uses of the premises and the transaction procedures but relaxation of these controls has been mooted. South Korea also imposed restrictions on foreign investors and buyers but removed the discriminations in 1998; since then foreign investors and buyers have been subjected to the same rules and regulations as local buyers (*Business Korea*, 1 July 1998).

The openness of the real estate market to foreign investment and buyers may extenuate the magnitude of the property cycles as hot money may pour into the real estate sector in the boom periods, intensifying speculative activities. These short-term investments may leave the market quickly during bust times, aggravating the downward trend. Thus the open economy of Hong Kong in general and the financial and real estate market in particular might have partially accounted for its relatively poorer economic performance after the Asian financial crisis.

Undeniably the speed of economic re-bounce in the wake of the crisis was attributable to a wide array of other factors: the economic base and structure of respective economies, policy responses to the financial crisis, government leadership, the economic trajectories of respective countries, the need and strategy for economic restructuring etc. Being an important economic sector, the performance of the housing market and relevant government policies to overcome the bust conditions also affected the economic recovery of the Asian Tigers.

Policies to revive the housing market

As discussed earlier, the housing markets of the four Asian Tigers trod different paths from 1998. Their divergence can be explained, at least partially, by the variations in policy changes and the perceived role of the housing market in facilitating economic recovery. Table 4 outlines the major changes in housing policies since the late nineties. Overall, there has been a general reduction of government intervention in the market. However, the governments take different tacks in steering housing development and the policy changes were made for different purposes. For South Korea, the relaxation of the highly regulated housing system was to enhance housing supply and promote home ownership with the intention of facilitating economic recovery. The relaxation was

Table 4 – Changes in housing policies of the four Asian Tigers post-1998

Countries/cities	Overall housing strategies	Subsidized housing policies	Private housing policy
South Korea	● Deregulation of supply & price control. ● Liberalization of consumer credit.	● No significant change.	● Deregulation and liberalization. ● Tax deduction. ● Financial assistance to developers and buyers.
Hong Kong	● Removal of home ownership target. ● Abolition of production target. ● Minimization of government intervention. ● Emphasis on government's facilitator role.	● Termination of all subsidized home ownership schemes. ● Expansion of public rental housing supply.	● Reduction of land and housing supply. ● Introduction of the 'land application policy'.
Singapore	● Relaxation of home ownership policy. ● Expansion of public rental housing. ● Necessity to maintain property value.	● Relaxation of eligibility for rental flats. ● Relaxation of sublet restrictions of subsidized flats. ● Restructuring of Housing and Development Board.	● Temporary suspension of land sale. ● Introduction of the Reserve List for land sale. ● Facilitation of urban renewal.
Taiwan	● Low interest loans for home purchase. ● Coverage for mortgage arrears.	● Moratorium of public housing construction.	● Mortgage interest rate subsidies. ● Tax deduction.

Sources: Hsu (2001); Li (2002); Kim (2004); Kim and Kim (2000); Son (et al, 2003); Taiwan Ratings (2005); Yip and Chang (2003); Yoon (2003) and Yu (2004)

implemented in all fronts: price control, housing finance control (eg liberalization of mortgage loans), supply control and tax payments. Despite the reduction of its controls in the housing markets, it stepped up financial assistance to facilitate housing provision and purchase. The wide array of policies to stimulate market activities explains the quick recovery and rapid growth of this housing market after the regional crisis (Kim, 2004, Kim and Kim, 2000; and Son, *et al*, 2003).

The government of Hong Kong also minimized its intervention from 2001 onward after a period of stagnancy from 1998 to early 2001, but the emphasis has not been on relaxing control as the housing market operates on free market principles. Rather, it was the reduction of the subsidized sector in the home purchase market. The reduction was for the purpose of expanding the territory of the inactive private housing market as private homes became more affordable to the lower income families. Another measure to regulate market conditions was to address the supply of new land and subsidized owner-occupier housing to redress the oversupply problem at the time. Thus overall, the tactic of the Hong Kong government was to address the supply and demand imbalance situation by reducing supply and increasing the demand of the private housing market by shrinking the public sector, not by providing financial assistance to potential home buyers to stimulate demand (although the loan schemes were stepped up initially after the market had slumped but eventually were all abolished). This was because the government had experienced in the past few years the negative effects and impacts of its ambitious home promotion policy implemented since 1998. The home ownership promotion policy and the home ownership target were subsequently abolished altogether in 2001. Such a strategy inevitably relied on the recovery of the general economy to enliven the housing market (Chiu, 2003).

Changes in Singapore and Taiwan were less drastic. There was no drastic reversal of housing policies. Nonetheless, the Singapore government modified its full home owning policy. The importance of relaxing entry to public rental housing was acknowledged as there were families which could not afford home owning, especially during times of economic downturn (Yu, 2004). The government also recognized the significance of maintaining property values in a high home owning society as it tied in with the asset value of individual households, and hence their retirement protection (Chua, 2003). Although mild, Taiwan took different means from those of Hong Kong and South Korea to stimulate market activities. It provided subsidized loans to potential home owners and helped home owners to tide over difficult periods by covering their mortgage arrears for six months. However, similar to Hong Kong, the government also imposed a temporary moratorium on public housing production in order to boost the stagnant market (Hsu, 2001; Li, 2002; Yip and Chang 2003). Although it was the intention of the government to facilitate economic growth through stimulating demand in the housing market, less drastic measures were undertaken (see Table 4 for details). This was possibly due to the fact that the home ownership rate had already been as high as 80% and that housing prices had not fallen as substantially as in the other Asian markets.

Thus, it is evident that if housing market performance was regarded as important in facilitating economic revival, governments had implemented policies and measures to stimulate housing demand, such as in the case of South Korea and Taiwan. If, however, the housing market was not considered as a propeller of economic recovery, the major emphasis had been placed on controlling supply, such as in the cases of Hong Kong and Singapore. These housing policies, in turn, affect the performance of the housing markets alongside other factors.

Conclusion

Obviously the Asian financial crisis, which was triggered by the massive and quick movement of global funds, exerted tremendous economic impact on the region. But as demonstrated in this article, the impact varied among the four major Asian economies. It was argued that economies which were more open and operated bigger financial sectors were more susceptible to the regional crisis. Likewise, the housing markets of the tiger economies which were more open to foreign investors were more severely affected. Policies to restore the housing markets depended on the perceived role of the housing sector in reviving the economy. Where a strong housing market was regarded as expedient to stimulate economic growth, greater emphasis was placed on inducing housing demand. Otherwise, government actions mainly pertained to the reduction in the supply of land and subsidized owner-occupied housing.

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Housing Modifications, Neighbourhood Environment, and Housing Prices: Traditional Paradigms Re-examined

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Introduction

Since the pioneering studies of Zangerle (1927) and Henderson (1931) in real estate appraisal, attention to the effects of neighborhood and building factors (landscape views, vegetation, noise, air pollution, building patterns, etc.) on property values has been unsubsiding (Penington et al., 1990; Lockwood & Tracy, 1995; Asabere & Huffman, 1995; Feitelson *et al*., 1996; Tomkins *et al*., 1998; Spahr & Sunderman, 1999; Tyrvainen & Miettinen, 2000; Johnston et al., 2002; Grudnitski, 2003). The ongoing interest in this issue is due to the sizable contribution property taxation makes to the financial base of local authorities, and the presence of numerous players acting on the property market and affected by it, both directly and indirectly - construction companies, planning organizations, mortgage banks, and private investors (Appraisal Institute, 1992; Delisle *et al*, 1994; Yermiyahu, 1999).

In defining the interaction between the neighborhood environment, residential construction, and house prices, the modern theory of real estate appraisal and management relies on a number of *assumptions*, three of which are as follows:

- Objective location factors determine the market values of residential properties: Real estate prices in better locations are always higher and more stable than elsewhere;
- The neighborhood environment affects house prices directly: If environmental conditions are favorable, real estate prices are high and *vice versa*;
- New housing construction is always beneficial for local authorities: New building, even at the expense of local amenities, brings more taxes to the local budget.

The present paper attempts to revisit these popular concepts using empirical data available for two major cities in Israel – Jerusalem (650,000 residents) and Haifa (300,000 residents).

The paper is organized as follows. It starts with a brief description of the cities under study and data sources used in the analysis. Then, the aforementioned assumptions of the real estate theory are discussed in turn, and their validity is verified against available empirical data. As we argue, *public perception* about residential location (rather than *objective* location *per se*) tends to affect house prices. We also suggest that the neighborhood environment and house prices *correlate indirectly*, via housing rehabilitation efforts of property owners, who chose to invest in the maintenance and expansion of their properties (in building additions, modifications, renovations, etc.) or to refrain from such investment. Lastly, we argue that new residential construction, taking place at the expense of local amenities, may increase the inflow of local property taxes only in the short run, whereas, in the long run, it may *undermine the local tax base*, due to residential succession.

Data Sources

Data for the present analysis came from the following three main sources:

- *General data* on house prices were obtained from the Housing Prices Blue Book, published by the Levi-Yitzhak Appraisal & Survey Agency (Levi-Yitzhak, 2003);
- *Detailed data* on real estate transactions in selected neighborhoods were drawn from the Apartments and Houses' Sales Database, maintained by the Israel Tax Office.
- *The information on the neighborhoods' physical and environmental characteristics* was obtained via field surveys, using specially designed field tables, as further detailed in this section.

Eight neighborhoods were covered by the analysis, four in each city under study. A total of 449 housing units were surveyed in Jerusalem and 754 units - in Haifa (see Appendix 1). All the neighborhoods surveyed were built in the early 1970s through the 1980s as mass construction and are formed by privately owned houses

and apartments of similar size and design, which facilitated comparative analysis.[1]

Post-occupancy housing changes and modifications (HCMs) in the neighborhoods were recorded *in-situ*, using a specially designed field table (Appendix 2). The table in question assigns numerical codes to most typical changes (01,02,..N), and provides open-ended numbering for earlier unobserved changes and modifications (Etzion *et al*., 2001).

Proximities to neighborhood amenities and disamenities (distance to parks, major roads, etc.) are important research variables, reflecting neighborhood location. This information was assembled in two steps. First, all the major amenities and disamenities in the neighborhoods and in their vicinity were identified during field surveys and positioned on neighborhood and city maps. At the next phase, these environmental features were transferred into ArcGIS9 © databases, and aerial distances from each of them to individual apartments and houses were calculated using the 'spatial join' tool (for more detail, see Minami, 2001).

A sizable part of investment in residential properties (viz, furnishing, layout change, renovation, and plumbing) occur inside apartments and houses and cannot be traced from outside. Investment intentions of property owners are another important indicator of homeowners' response to neighborhood conditions and building characteristics, which cannot be investigated by a field survey, without entering individual properties. The present study dealt solely with *external* housing changes and modifications in residential neighborhoods, assuming that follow-up studies may focus on the survey of interior modifications and direct interviewing of homeowners.

The effect of location

Broadly defined, residential location is the geographic position of a residential property in urban space, relative to the city's center, major places of employment, open areas, etc. Empirically, the location of a residential property may be defined by the *environmental attributes* of the neighborhood in which it is located (eg, air pollution and noise levels, elevation above the sea level), or by its *proximity* to various urban features, such as open areas, sea shore, major streets, industrial areas, university campuses, large shopping centers, etc. (Appraisal Institute, 1992; Baum and Crosby 1995; Delisle and Sa-Aadu, 1994).

In most empirical studies, the Hedonic Price Method (HPM) is used to identify and measure the effect of location factors and building characteristics on property values. This modeling approach assumes that the monetary value of a dwelling unit depends on the attributes a particular house or apartment may possess. For instance, the market price of a dwelling may reflect its physical size and environmental characteristics, such as the number of rooms, age, location, etc. (Rosen 1974; Becker and Lavee, 1999; Des Rosiers, 2002; Plaut & Plaut, 2003). According to the underlying assumptions of this method, the marginal price effect of environmental amenities and disamenities is attributed either to an individual's willingness to pay for a particular attribute (eg, for a sea view or for proximity to a recreation area) or to a price-dumping effect which a certain attribute (eg, traffic noise or unattractive view) may have on the house's value.

The Hedonic Price Method (HPM) is usually termed a *revealed preference method* in order to distinguish it from the *stated preference approach*, such as the Contingent Valuation Method (CVM). The latter method investigates the intended (hypothetical) rather than actual market behavior. This survey-based approach is a well-established technique for measuring the public's willingness to pay (or the amount they would need to be compensated) for a perceived benefit (or loss) stemming from a specified change in the quality of the environment, such as traffic noise from a nearby highway or distance from a waste disposal site (Palmquist, 1982; Smith & Desvousges, 1986; Ryan, 1999).

After nearly 60 years of qualitative empirical research in real estate valuation, *is there strong empirical evidence that objective location factors and attributes contribute substantially to a property's market value?*

Although not claiming to be totally exhaustive, our analysis indicates that the answer to this question is rather *negative*. In particular, in no empirical study we reviewed during preparation of this paper,[2] evidence was found that location attributes *per se* explain more than 10-15% (!) of variation of house prices, with ca. 85-90% of price variance attributed to other factors, such as age of the property, building materials, housing quality, market conditions, etc.

In order to illustrate how ambiguous the relationship between neighborhood location and property values might be, let us consider a few examples drawn from the City of Haifa (Figure 1), one of the two cities under study.

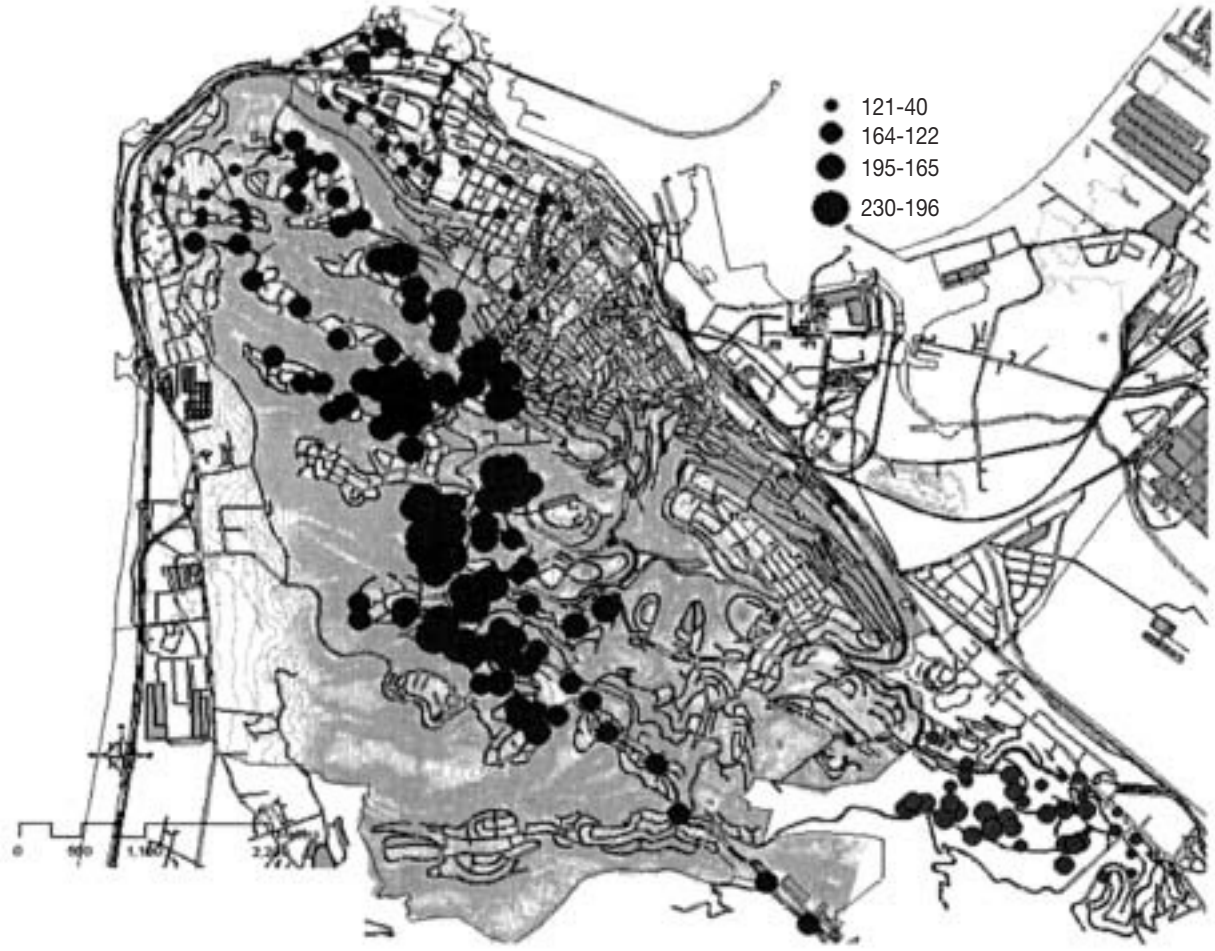
Although the city is very compact (ca. 60km^2), the average market prices of similar residential properties appear to vary considerably across different locations, ranging from US$40,000 to US$230,000.

Figure 2 illustrates the relationship between the proximity of apartments to open areas

[1] In Israel, there is practically no rental housing owned by commercial firms. Instead, public housing agencies (such as *Amidar* and *Amigur*) own a sizable portion of the housing stock in many localities. There is also a fairly well-developed market for rental of privately owned apartments and houses (Portnov and Erell, 2003).

[2] Correll *et al.*, 1978; Penington et al., 1990; Hughes & Sirmans, 1993; Been, 1994; Lockwood & Tracy, 1995; Asabere & Huffman, 1995; Feitelson *et al.*, 1996; Bullard, 1996; Ellen and Turner, 1997; Gat, 1998; Tomkins *et al.*, 1998; Spahr & Sunderman, 1999; Ryan, 1999; Freeman, 1999; Mahan *et al*., 2000; Rush and Bruggink, 2000; Tyrvainen & Miettinen, 2000; Wilhelmsson, 2000; Cole and Reeve, 2001; Bond *et al.*, 2002; Haider, and Haroun, 2002; Irwin, 2002; Johnston *et al.*, 2002; Fleishman & Odish, 2003a,b; Grudnitski, 2003; Portnov *et al.*, 2005

FIGURE 1
The City of Haifa: Topography, Road Network and Average Market Of Prices of 3-bdr Apartments at Different Locations (in US$1000)



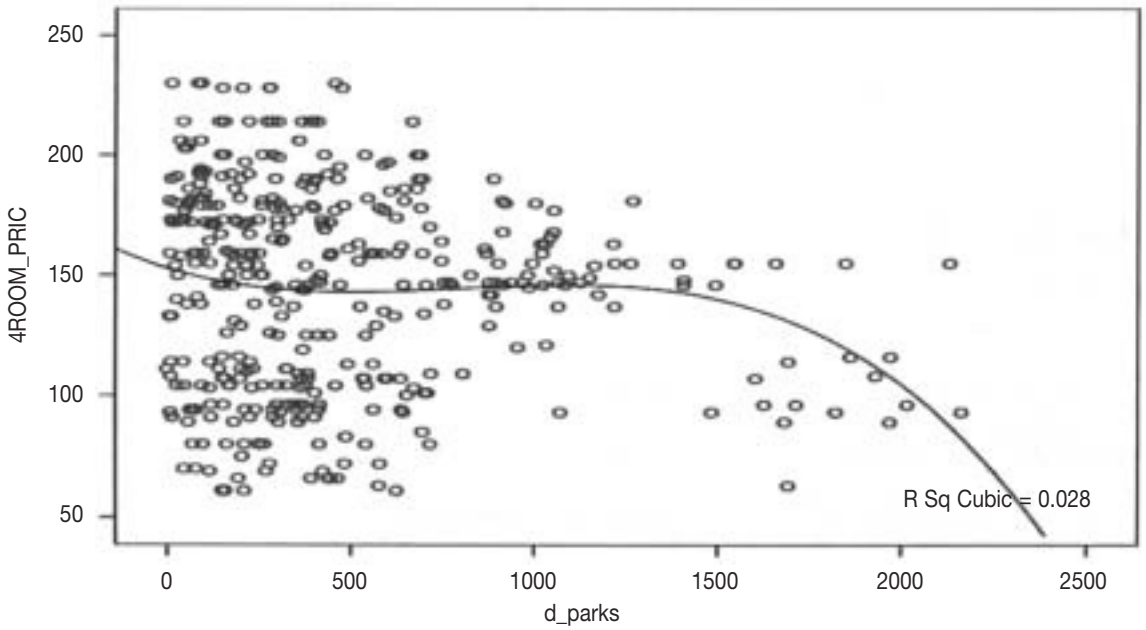
and their average market prices, whereas Figure 3 features the link between the properties' location on the city topography (elevation) and their average price levels.

As we can notice, in *neither case*, the link between location attributes and property prices appears to be straightforward. Such a link is especially weak in the case of open-space proximity. In particular, Figure 2 shows no obvious relationship between the two factors under study. Although in the case of *elevation* (Figure 3), the average prices of apartments do increase initially in line with rising elevations, this initial increase is altered by leveling off and subsequent decline. Moreover, nearly on any elevation, the range of apartments' prices (marked by thick black arrows in the diagram) tends to exceed the price averages observed on these elevations.[3]

Let us take a look now at the effect of neighborhood location on residential price dynamics. Figure 4 illustrates the price change in four residential neighborhoods in Haifa over the five-year period of 1990-2002. The comparison between two neighborhoods – *Ramot Remez* and *Kiryat Haim* (marked by thick color lines in the diagram) – is especially instructive. Both neighborhoods were established during the early 1970s and share similar building patterns. While environmentally, *Ramot Remez* is an attractive place, due to its positioning on relatively high elevations, proximity to two university campuses and green areas, *Kiryan Haim* is clearly disadvantageous. The neighborhood is

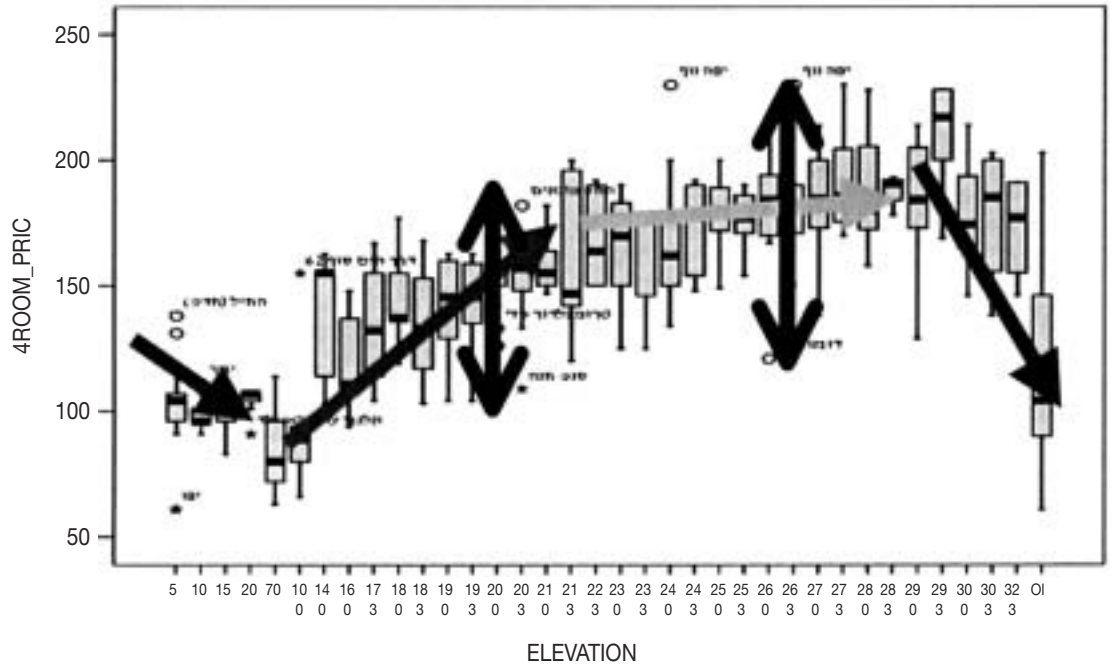
[3] In Israel, in general, and in the city of Haifa, in particular, the elevation of a house above the sea level is a considerable environmental amenity. High elevations are normally concomitant with panoramic views of open areas and provide better cross ventilation of indoor and outdoor spaces during hot and long summers.

FIGURE 2
The City of Haifa: Apartment Prices vs. Proximity to Main Open Areas



4ROOM_PRIC = Price of a 4-room (3-bedroom) apartment in US$1000
d_parks = distance to parks in meters

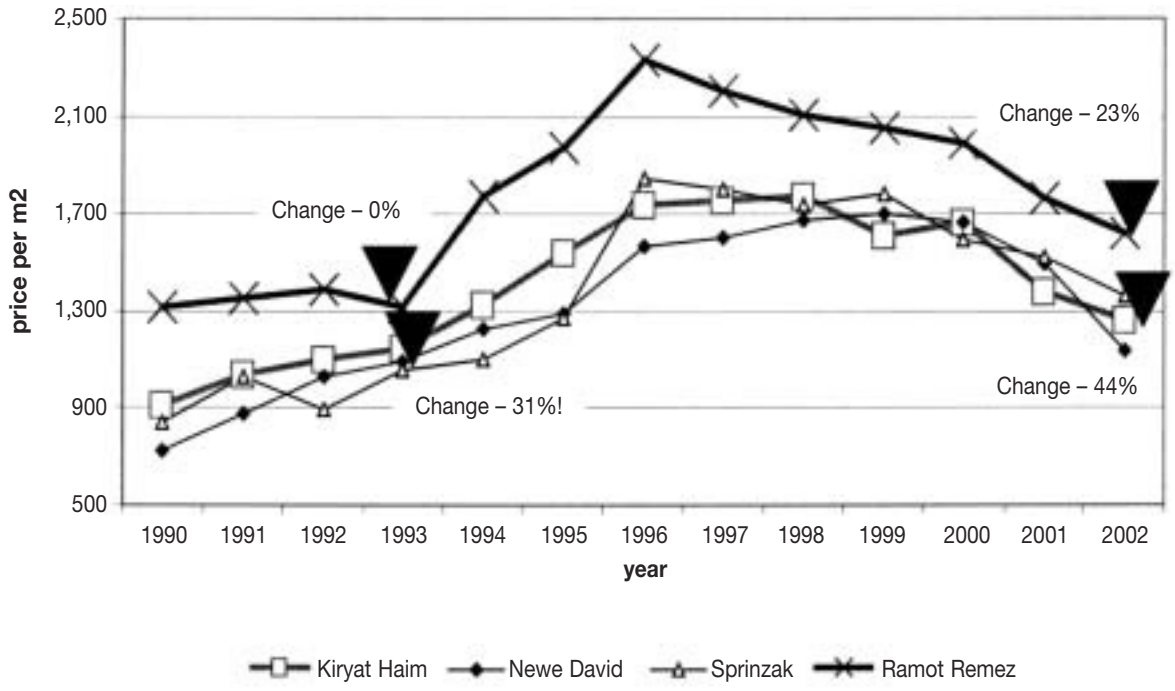
FIGURE 3
The City of Haifa: Average Apartment Prices vs. Elevation of Properties Above the Sea Level



4ROOM_PRIC = Price of a 4-room (3-bedroom) apartment in US$1000
ELEVATION = elevation of the apartment above the sea level in meters

FIGURE 4
Housing Price Change in Selected Residential Neighborhoods

Note: prices per m^2 are given in US$



positioned on a flat topography, provides no views of open areas, and is close to a major oil refinery plant.

However, as Figure 4 shows, *Kiryat Haim* exhibited in 1990-2002 (contrary to all expectations!) a stronger price gain than the better positioned *Ramot Remez*. This phenomenon may have a simple explanation: the *Ramot Remez* neighborhood is commonly perceived as "peripheral", located far away from main city attractions and major transportation nodes. Perhaps in the past this was correct. However, recent infrastructure developments changed this situation dramatically. Nevertheless, the perceived "peripherality" of this neighborhood is still deeply recorded in "collective" memory. Although the *Ramot Remez* still has a higher average house price level than elsewhere, longitudinally, its price change appears to be rather slow (23% in 1990-2002 vs. e.g., 44% in *Kiryat Haim*; see Fig. 4), thus indicating that less environmentally favorable neighborhoods are likely catch it up eventually.

Thus, not the "objective" features of residential location affect the house price changes , but rather the *public perception* about such features tends to affect it. In other words, *the "perceived location" of residential properties, not the "objective" location per se, is likely to be the main driving force behind house prices and their dynamics.*

Does the neighborhood environment affect house prices directly?

Neighborhood amenities, building patterns, and housing characteristics may appear to affect house prices *only* directly, which is not always true, as we shall argue later in this section. The direct links between neighborhood and building characteristics, on the one hand, and house prices, on the other, indeed *appear* to be fairly straightforward. Whereas a sea view or proximity to open areas may bring a price premium to homeowners (Benson et al, 1998; Morancho, 2003), structural wear is likely to lessen a building's value, and house prices near a noisy road tend to be low (Asabere and Huffman, 1995; Ryan, 1999; Wilhelmsson, 2000).

However, in our view, such direct relationships may be grossly oversimplified. Why do house prices tend to be low in a heavily polluted neighborhood? Because apartments and houses in such a neighborhood are unattractive to buyers, the appraisal theory readily tells us. Yes, it is correct, but only in part. Will individual property owners in such a neighborhood invest much in the maintenance and expansion of their properties – in building additions, renovations, and gardening? The answer to this question is rather no. The reason is simple: in an environmentally disadvantageous or poorly located neighborhood, any future price gain can hardly be expected. As a result, such a neighborhood will naturally become a *disincentive for rehabilitation decisions*.

Thus, the adverse neighborhood environment may 'strike' the local house prices twice: *first, by lowering the*

neighborhood's attractiveness to buyers, and, second, by causing underinvestment on the part of homeowners. The same link may also work in the opposite direction: if the neighborhood's environment and location are favorable, homeowners may be inclined to invest more in housing renovations. Since a well maintained neighborhood attracts buyers, its individual properties retain their value.

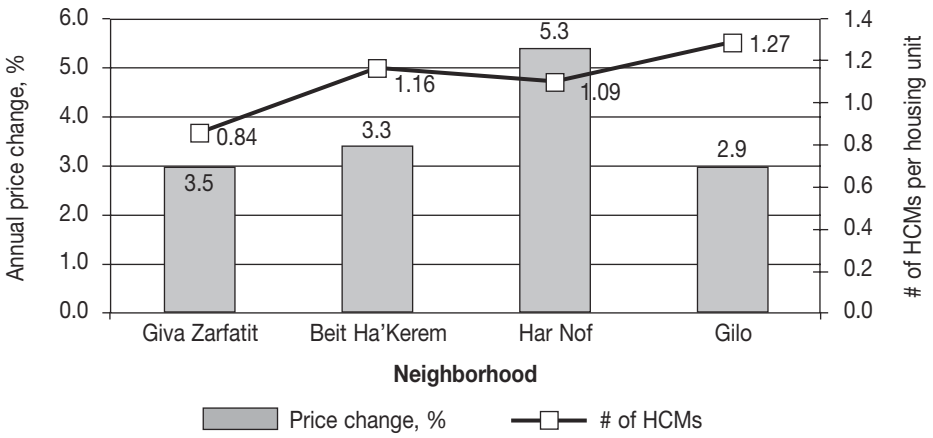
According to the explanation we propose, the link between neighborhood conditions, renovation activity of homeowners and house prices thus works as follows. Environmental amenities in a residential neighborhood (proximity to open areas, attractive views, etc) encourage homeowners to invest more in the *physical expansion and maintenance of their properties* – in building additions, modifications, renovations, gardening, etc. As a result, with the passage of time, the neighborhood appearance improves overall, and the property prices remain high. In contrast, if the environmental conditions in the neighborhood are unappealing (eg a neighborhood is situated on low elevations, deprived of green views, open spaces, surrounded by noisy roads or incorporates other environmental disamenities, either existing from the outset or added later), the local homeowners may see little value in investing in the maintenance of their properties. As a result, the physical conditions of individual properties in the neighborhood deteriorate, leading to low house prices.

In six (out of eight) residential neighborhoods we surveyed, the average number of accumulated post-occupancy changes and modifications indeed appeared to correlate firmly with both environmental conditions in the neighborhoods and their annual price change (see Figure 5). With a notable exception of *Gilo* in Jerusalem and *Ramot Remez* in Haifa, where slow price increases are likely to be determined by a variety of localized factors, the relationship between

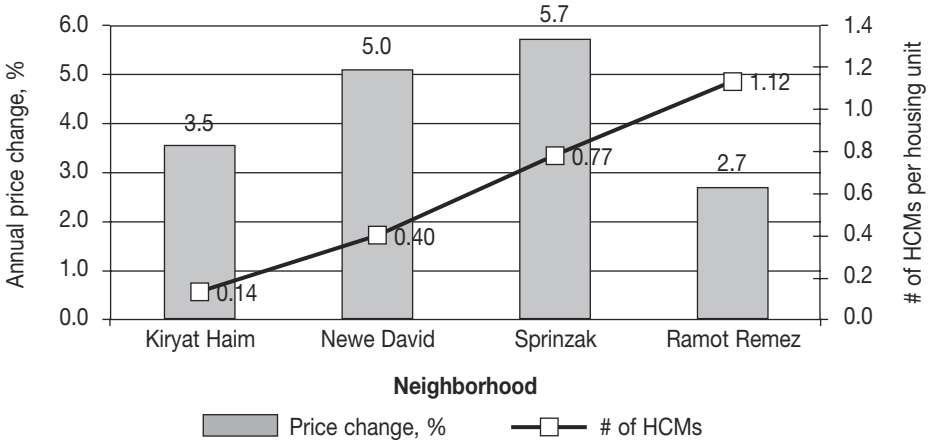
FIGURE 5
Average Number of Housing Changes and Modifications (HCM) per Housing Unit and Annual Price Change in the Neighborhoods Surveyed in Jerusalem (A) and Haifa (B)

Note: The neighborhoods are ranked according to their environmental conditions, from the worst (left) to best (right)

5A



5B



the variables under study appeared to be fairly straightforward: *more environmentally attractive neighborhoods tended to exhibit more rehabilitation activity and more rapid average price increases*.

Thus, in Haifa (Figure 5B), the Sprinzak neighborhood (0.77 housing changes and modifications (HCM) per average dwelling) exhibited in 1990-2002 the average annual price increase of some 5.7%, whereas Kiryat Haim (0.14 HCM) witnessed a price increase of only 3.5% per annum. However, these relationships clearly require a further analysis of potential confounders.

Does new construction always boost locally generated incomes of municipalities?

There exist two different systems of taxation, according to which the local property taxes are levied:

- According to the value based (*ad valorem*) tax system, payable property taxes are determined by house values, and are a function of the assessed property value, actual use of property (assessment rate) and the tax rate;
- According to non-value based property tax systems, property tax is determined by physical size of property (eg, its floor area) and the tax rate.

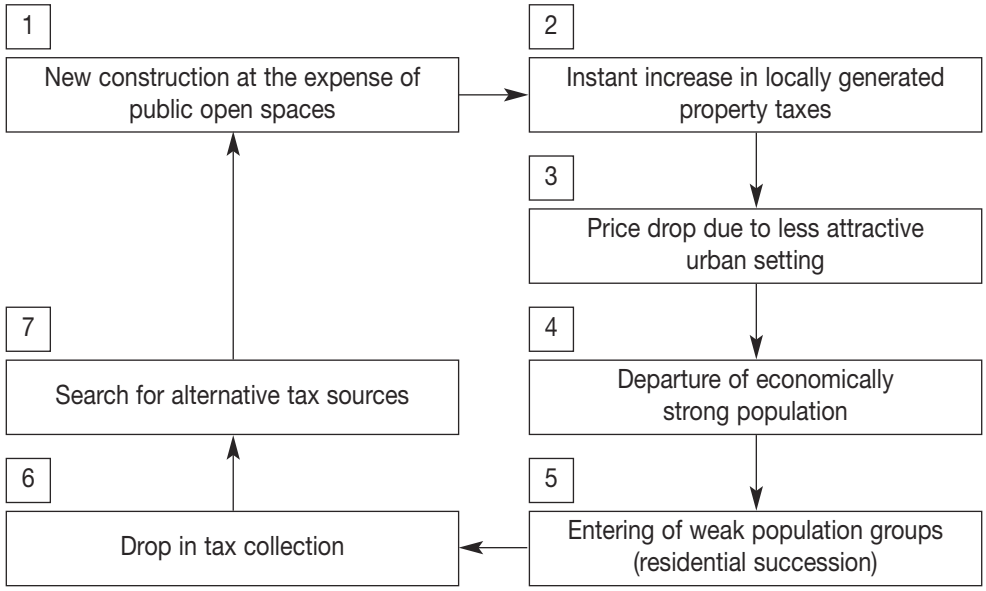
While the former approach is used in most developed countries of the world, there are also a few unique examples of non-value based property tax systems, which are found in Poland, Hungary, Czech Republic, Bulgaria and Israel (Portnov *et al*., 2001).

Under any of these assessment systems, a local authority, interested in increasing its tax base, often chooses to boost new construction in the area of its jurisdiction. Such a practice is especially common when the non value-based tax system is used, according to which the taxes collected are a direct function of the total floor area of building in the locality.

In some cases, local municipalities struggling for additional sources of income are ready to sacrifice local environmental amenities, such as open areas and green slopes, to attract more developers and tax payers. *Does it actually happen?* Yes, perhaps in the short run. However, over time, such practice is likely to be harmful for the local budget, as outlined below (see Figure 6):

New construction, carried out in built urban areas, increases property taxes accruing to the local authorities shortly after new housing units are completed and new dwellers moved in. However, the reduction of open areas and growing residential densities lead to a price drop eventually, because wealthy home-buyers, willing to pay more for proximity to parks and for green views, may start looking for alternative locations. Dropping house prices naturally lead to a departure of economically strong residents from the municipality and to their replacement by weaker population groups, a process known as "filtering" or "residential succession" (Duncan and Duncan, 1957). A weakening population leads to fewer taxes collected by local authorities, because weak population groups often enjoy tax breaks or are simply incapable of paying any taxes at all, due to

FIGURE 6
Proposed Model of Interaction between New Construction in Existing Urban Areas and Tax Collection by Local Municipalities



limited financial means. A drop in the local taxes collected and shrinking tax base cause local authorities to search for alternative sources of income. One of them is stimulating new constructions anywhere possible, including at the expense of remaining open spaces and other local amenities. New housing units built there result in a temporary increase in the local taxes, but, in the long run, lead to more out-migration of economically strong residents and additional tax drop. As a result, the municipality goes back again and again to "square one": drop in housing values, residential succession, search for new sources of income, etc. (Figure 6).

Conclusions and policy implications

Informed urban development policy requires clear understanding of the mechanisms of interaction between environmental factors, renovation activity in city neighborhoods and house prices. This knowledge may assist policy-makers in developing neighborhood rehabilitation programs, strengthening local environmental amenities, and enhancing local property values. In this respect, the results of the present analysis (albeit preliminary and requiring further substantiation) may have a number of important policy implications.

First, realization of the fact that the *subjective perception* of the urban physical environment, rather than *objective* physical qualities of this environment, tends to affect house prices may spur local surveys, aimed at identifying the most disturbing environmental disamenities and most attractive amenities, perceived by city residents. The results of such surveys may be used, in turn, for the preparation of long-term physical development plans and local development strategies.

Second, in empirical studies, specifically those employing the hedonic price approach, a way should be found to incorporate "publicly perceived" amenities and disamenities instead of "objective" attributes of a property's location. The latter may have no particular bearing upon the public's willingness (or unwillingness) to pay for a particular housing attribute and may thus only bias the results of the analysis. As expected, the introduction of such "subjective" amenities and disamenities in the empirical analysis may lead to improving explanatory models, used for both forecasting the housing price impact of various planning measures, such as new road construction, installation of cellular-phone antennas, etc. Technically, information on "perceived amenities and disamenities" in residential neighborhoods can easily be collected via individual interviews with tenants and homeowners.

The above "subjective" models may become especially useful in light of growing use of Geographic Information Systems (GIS) for GIS-assisted mass appraisal, applied in the cases in which only a limited number of comparable sales are available, which do not permit more accurate individual assessments (see inter alia Weber, 2001).

Third, understanding of the fact that post-occupancy housing modifications and maintenance efforts of homeowners affect housing values and that such activity is affected, in turn, by environmental conditions in residential neighborhoods, may help to justify public investment in environmental programs, aimed at enhancing local environmental amenities in residential areas. As expected, such public investment may initiate a dynamic process, spurring rehabilitation activity of local homeowners and improved maintenance of their properties. Expectedly, this process will lead eventually to raising local house prices and municipalities' locally-generated incomes.

Lastly, comprehension of the fact that the encouragement of new construction in existing urban areas at any costs, even the expense of existing environmental amenities, not necessarily leads to an influx of more property taxes to the local coffers, may help local municipalities to break away form the current "vicious circle" of shrinking tax base, budget deficit and socio-economic deterioration they experience. In particular, an alternative to the current wide-spread practice of new construction activity in already densely populated areas may be public policy of strict preservation of existing local amenities, their enhancement and creation of new environmental attractions in existing built areas. As expected, this policy will make a locality more attractive for economically strong population groups, eventually leading to a rise in local property prices and to the expansion of the local tax base. In addition, in the places, in which the non-value based system of property taxation is enforced (such as *Arnona* taxation in Israel), it should be substituted by a market-oriented approach based on property values. This substitution will divert the local authorities from a (perceivably) "easy path" of local-tax boosting via "wholesale" encouragement of new construction in existing urban areas, which may be detrimental for the locally generated incomes of municipalities in the long run.

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APPENDIX 1

Selected Characteristics of the Neighborhoods Surveyed

Neighborhood	Total No of housing units	No of apart-ments surveyed	Price, $/m2 (2-bdr)	Annual price change in 1990-2002, %	Housing turnover per annum, %	No of HCMs per housing unit	Distance to parks, m	Distance to roads, m	Green views, %	Urban views, %	Elevation above the sea level, m	Vegetation (1-3)*	Cleanness (1-3)*	Structural condition of buildings (1-3)*
Jerusalem														
Giva Zarfatit	2,106	153	2,198	2.9	3.1	0.84	232	109	0.0	39.2	820	2.8	2.7	3.0
Beit Ha'Kerem	3,871	100	2,189	4.3	1.3	1.16	168	60	6.0	9.0	765	2.5	2.6	2.4
Har Nof	3,323	96	2,247	5.3	1.2	1.09	102	27	79.2	1.0	750	1.5	2.4	3.0
Gilo	8,911	100	1,864	2.9	3.5	1.27	41	67	0.0	52.0	830	1.4	1.9	1.9
Total:	18,211	449												
Haifa														
Kiryat Haim	10,584	168	1,374	3.5	1.1	0.14	444	36	0.0	0.0	5	1.4	2.0	2.0
Newe David	1,878	117	1,290	5.0	1.7	0.40	160	68	8.5	0.0	26	1.8	2.1	2.2
Sprinzak	1,673	152	1,338	5.7	5.2	0.77	33	161	30.3	3.3	59	1.6	2.0	1.9
Ramot Remez	2,161	327	1,749	2.7	2.6	1.12	71	217	17.4	66.1	271	1.3	2.1	1.7
Total:	16,296	764												

* See legend to Appendix 2 for explanation

APPENDIX 2

A. Field survey table - data sources and examples of records

Address				Building								Apartment				Location (Proximity to ...)				
Apartment ID	Street	House #	Apart #	# of floors	Apart per floor	Physical condition	Relative condition	Changes	Elevator	Greenery	Cleanness	Storage	Parking	Private court-yard	View	Dis-amenity (ies)	Open spaces	Major road	Commercial centre	Elevation above sea level
Scale →				#	#	*	*	#/cost	yes/no	*	*	yes/no	yes/no	yes/no	*	meters	meters	meters	meters	meters
Source	Sale database			Field survey								Field survey				GIS calculation				
1	Pel yam	23	7	5	2	3	2	8/36100	yes	3	3	yes	yes	yes	4	458	56	120	1200	450
...																				
n	Naviim	15	45	4	3	1	3	2/13000	no	1	2	no	no	no	1	53	1236	45	540	24

LEGEND (*):

Physical condition		Relative condition (compared to adjacent buildings)		Greenery		Cleanness		View	
1	Poor	1	Worse	1	Few	1	Poor	1	No view
2	Average	2	Same	2	Some	2	Reasonable	2	Sea view
3	Good	3	Better	3	A lot	3	Good	3	Green view
								4	Urban view
								5	Industrial view

B. Change coding and examples of records

Address				No. of changes by change type														
Apartment ID	Street	House #	Apartment #	1 Window	2 Door	3 Solid roof	4 Arbor	5 Room	6 Storage	7 Balcony	8 Paving	9 Air conditioner	10 Wall, fence	11 Gate	12 Stairs	13 Other	Total # of changes	Estimated cost
1	Pel yam	23	7	1	2		1	1			1	2					8	36100
...																		
n	Naviim	15	45	1	1												2	1300

Note: Apartment ID1 (street address Pelyam 23/7) : 1 new window; 2 doors added; 1 arbor; 1 room addition; paving; 2 air conditioners added.

Housing Mortgage and Housing Transaction in China: Bridging the Missing Links

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1. Introduction[1]

Market reforms have successfully transformed socialist China over the past two and a half decades. In 2004, China recorded a GDP of about RMB 16 trillion *yuan* (US$ 1.93 trillion), making it the sixth largest economy in the world. Goldman Sachs has predicted that, if the current trend continues, China would become the world's largest economy by 2035, five years earlier than its previous assessment (*The Times,* 21 December 2005). While China's growing economic prominence looks so apparent nowadays, before 1978 it was merely a low-income country in which all resources were under central planning and allocation by a socialist state. Housing was a social welfare product administrated and delivered by state agencies (eg state-owned enterprises and housing bureaus) for its people. Under such a welfare-oriented system, a private housing market and housing mortgages did not exist.

Since the early 1980s, China has gradually restructured its housing system. Market mechanisms, with the objectives to eliminate state housing allocation, promote privatization of public housing and encourage private housing development, were introduced in stages to replace the welfare housing system. Housing has become a commodity that has an exchange value and that individual households can buy and sell in a market. Commodification of housing has dramatically attracted private investment in physical land and property development. It has also led to the emergence and proliferation of a wide range of intermediary services such as property valuation, housing mortgages, property agency and property management in some major Chinese cities like Beijing, Shanghai, Guangzhou and Shenzhen.

This paper examines current development and changes in China's housing mortgage market. It discusses some key factors leading to its tremendous growth in recent years and highlights some institutional constraints that have inhibited its development. The paper describes how spontaneous market-based solutions have emerged in China's property intermediary service sector that address these institutional barriers and improves the overall efficiency of transactions in housing mortgage market.

2. The Housing Mortgage Market in Mainland China

Housing mortgage is a relatively new development in socialist China. It was suggested that the China Construction Bank issued the first housing mortgage loan in 1986, but the mortgage market did not achieve a significant growth until 1998 when the central government determined to end welfare housing distribution, promote home ownership and expedite housing reform (Deng et al., 2005). In May 1998, the People's Bank of China, China's central bank, issued a directive containing the 'Regulations for Managing Individual Housing Mortgage Loans' *(Ge Ren Zhu Fang Dai Kuan Guan Li Ban Fa)* to all Chinese banks (PBOC, 2006). This policy directive served to support the growth of the real estate industry and formalize the home loan procedures of financial institutions. Detailed requirements about the eligibility of borrowers, down-payments, mortgage interest rates, loan terms, mortgage insurance and application procedures were clearly stipulated in the Regulations.

These Regulations constitute the basic policy framework for home mortgage

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lending across all mainland banks. Take the loan conditions offered by the Bank of China as an example (BOC, 2006). The current maximum loan amount shall not exceed 80% of the appraised value or transacted price of a housing property, whichever is smaller. The maximum loan periods shall not exceed 30 years for a RMB loan and 8 years for foreign currency loan respectively. For second-hand property, the maximum loan period shall be 20 years, and the combined housing age and loan period shall not exceed 30 years. Buyers can also borrow from their provident fund accounts to support home purchase (Cong, 1998). The central bank determines the interest rates for both commercial mortgage lending and provident fund lending[2] (Table 1).

Table 1 – Housing Mortgage Interest Rates in Mainland China (As of January 2006)

Housing Provident Fund	Benchmark Interest Rate (p.a.)
Loan periods:	
5 years or less	3.96
More than 5 years	4.41
Housing Mortgage from Commercial Banks	**Benchmark Interest Rate (p.a.)**
Loan periods:	
6 months or less	5.22
6 months to 1 year (inclusive)	5.58
1 year to 3 years (inclusive)	5.76
3 years to 5 years (inclusive)	5.85
More than 5 years	6.12

Remarks: Since 17 March 2005, The People's Bank of China has imposed lowest limits on commercial mortgage interest rates only but released the upper limits. The lowest limits should be 90% of the corresponding benchmark interest rates.

Source: Translation of interest rate policy of The People's Bank of China in its webpage. [Original in Chinese]

Mortgage rates are fixed for one-year loan contracts but mortgage rate adjustments announced by the central bank for long-term loan (more than one-year) contracts shall commence on the first of January in the following year. Mortgage applicants are required to provide the relevant documents to prove their eligibility, property title and ability to repay the loans. Mortgagee banks may require the provision of guarantees and credit insurance to support loan applications.

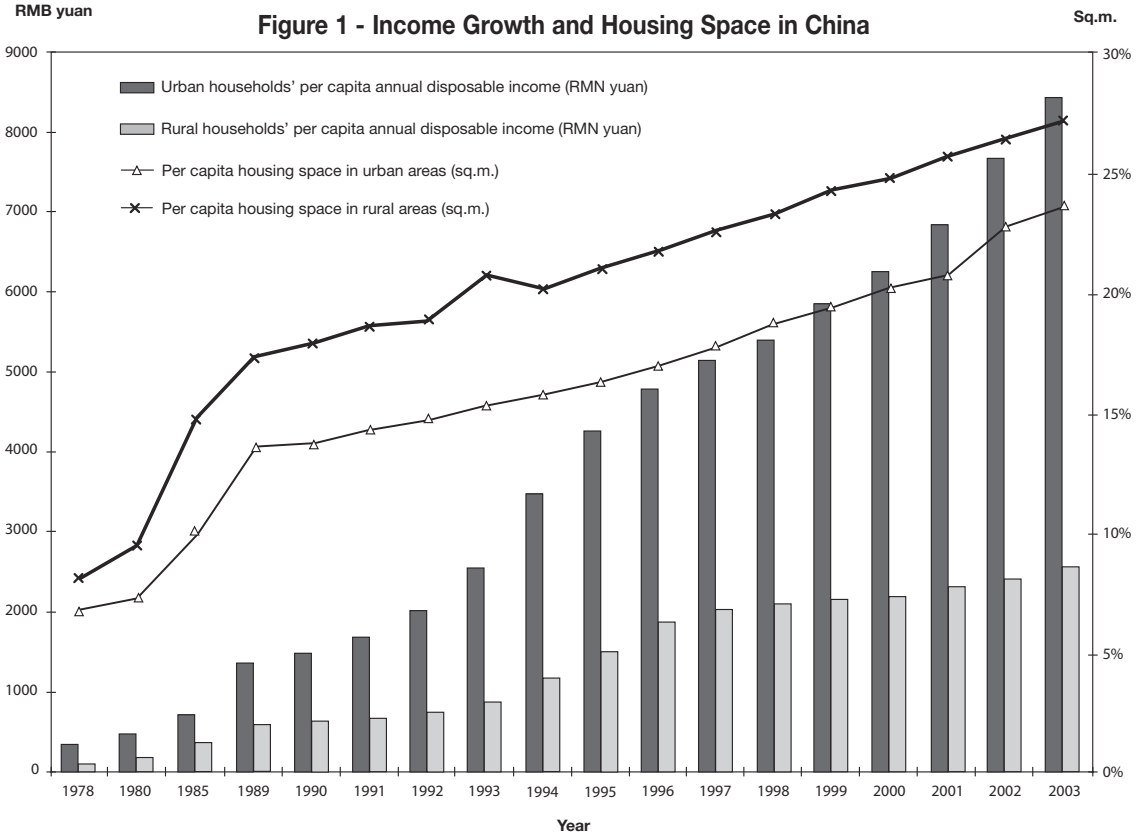
The mortgage market in China has grown enormously since the late 1990s when the 'rules of the game' became more transparent. In 1999, China's individual housing mortgage loans amounted to RMB 126 billion *yuan* (US$ 15.6 billion) (Deng et al., 2005). However, by the end of 2004, the outstanding balance of such loans was recorded to reach about RMB 1600 billion *yuan* (US$ 198.5 billion), which had increased by RMB 407.3 billion *yuan* (US$50.5 billion) over that of 2003 (*The People's Daily*, 1 March 2005, p.6). Despite its precipitous growth, housing mortgage loans took up only about 8.5% of total lending in local and foreign currencies, recorded at RMB 18.9 trillion *yuan* (US$2.34 trillion) in 2004, of all financial institutions inChina. This was still a comparatively low percentage compared to that of a mature economy like Hong Kong in which about 23% of bank loans and advances is in housing mortgage loans (Hong Kong Monetary Authority, 2006). Mortgage lending in China is still dominated by several major state-owned commercial banks such as the Industrial and Commercial Bank of China, the China Construction Bank, the Bank of China, and the Agricultural Bank. This situation may change when foreign banks are allowed to provide local loans as a result of progressive financial liberalization after China's accession into the World Trade Organization (WTO).

3. Growth Factors and Constraints

The increasing affluence of the Chinese people is a key factor that accounts for the growth of housing mortgage market in China. Open policy and market reform initiated by the then Deng Xiaoping since 1978 have transformed China into a world's factory of great economic fortune. Consistently strong income growth, high saving rates and wealth accumulation of the Chinese population have increased demand for better housing. Between 1978 and 2003, per capita annual disposable income of urban and rural households in China rose 24.7 times and 19.6 times respectively (Fig. 1), while the total time and demand saving deposits rose 492 times (Fig. 2).

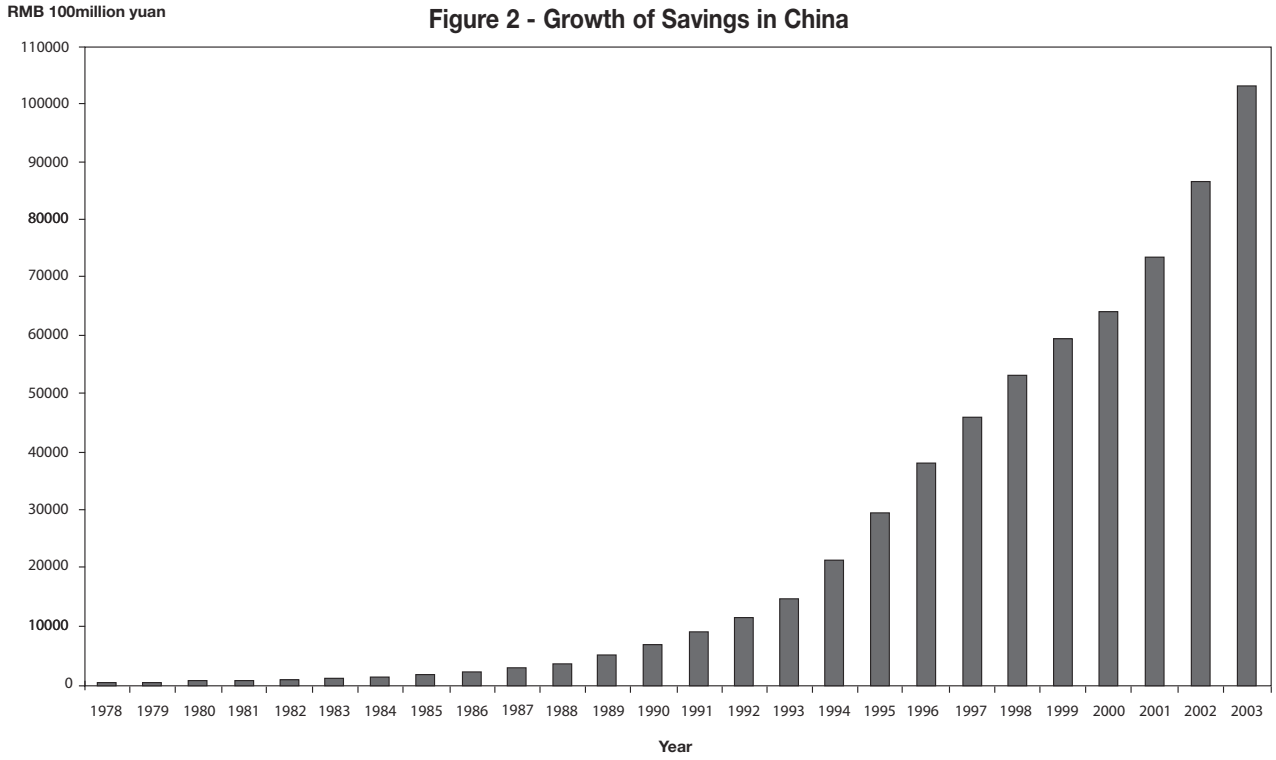
[2] China's provident fund system requires both employers and employees to contribute a certain percentage of the monthly employees' salaries to a fund reserve. The reserve is used for Treasury bond investment, securities investment, development loans and mortgage loans. Employees contributing to the fund are eligible to apply for provident mortgage loans.

Figure 1 - Income Growth and Housing Space in China



Source: China Statistical Yearbook 2004

Figure 2 - Growth of Savings in China



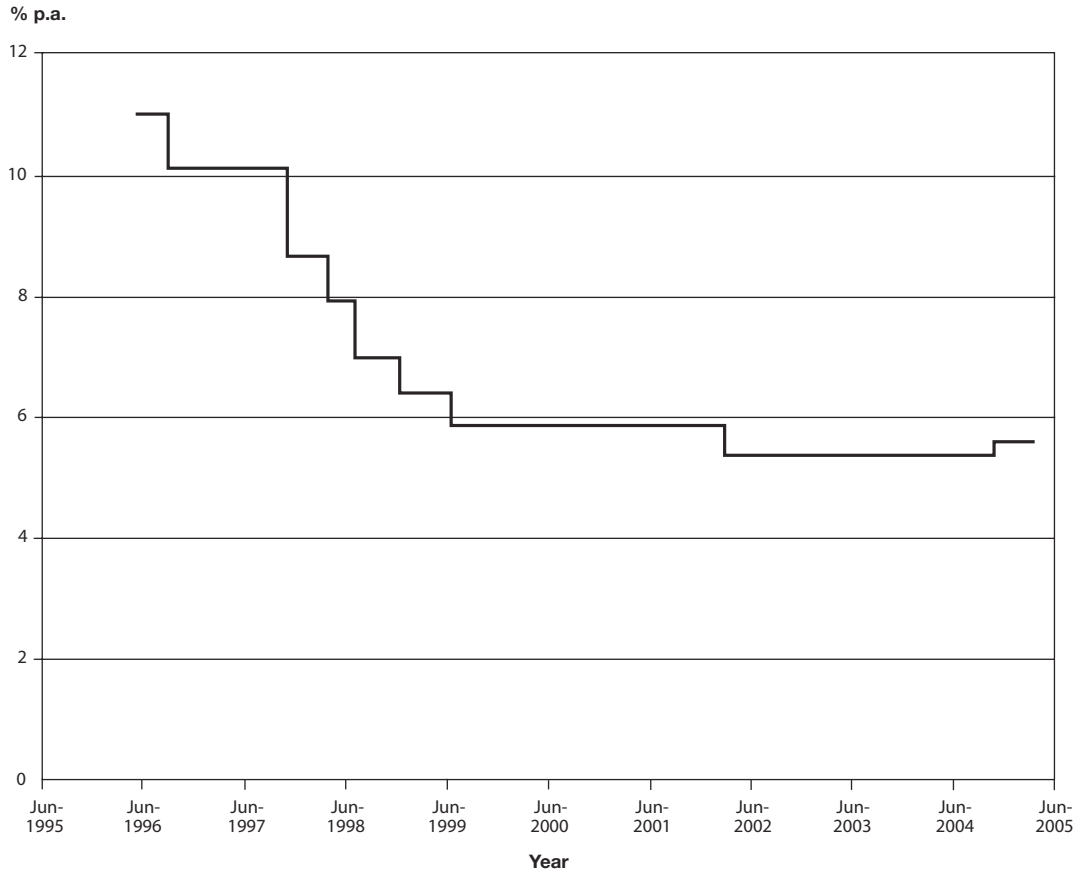
Source: China Data Online

Households are more willing and better able to spend more on housing consumption and improve their living conditions. A shortage of housing space, which was an acute problem in pre-reform socialist China, is considerably alleviated. This has been made possible not only because of the expansion and diversification of investment in housing production, but also because of the concomitant increase in mortgage lending.

Government's positive policy towards the housing sector is another important force that supports mortgage market development in China. Housing mortgage comes with property ownership and transaction. When the socialist state establishes clean, private property titles and allows housing transactions, demand for mortgage loans has naturally emerged. For example, Guangzhou, one of the earliest mainland cities implementing housing reform, re-activated housing transactions in 1979 and commenced the sale of state housing units at cost to existing tenants as early as 1989. Thus, when the country formally abolished welfare housing allocation by 1998, Guangzhou had already achieved a comparatively high home ownership rate. Housing transactions continued to rise as the city government implemented many favourable measures to reduce the costs of transacting. These included, for instance, a substantial reduction of contract tax *(Qi Shui)*, streamlining approval procedures for the sale of subsidized housing *(Fang Gai Fang)*, provision of a one-stop government office to service the housing market, and shortening the time required to process and register individual housing transactions.

In addition, with the promulgation of the 'Management Regulations for Housing Provident Fund' *(Zhu Fang Gong Ji Jin Guan Li Tiao Li)* by the State Council in 2000, borrowing from the provident fund provided the Guangzhou population with an alternative source of finance to support home purchase. This is an attractive option to home buyers because its interest rates are much lower than commercial mortgage rates. Furthermore, overall lending rates in China were considerably and progressively cut from 1996 (Fig. 3). All these factors have contributed to providing a powerful boost to the housing market. In Guangzhou, for instance, commodity housing transactions within its eight urban districts exceeded

Figure 3 - Mortgage (one-year) Interest Rate Movement in China, 1996-2005



Source: The People's Bank of China.

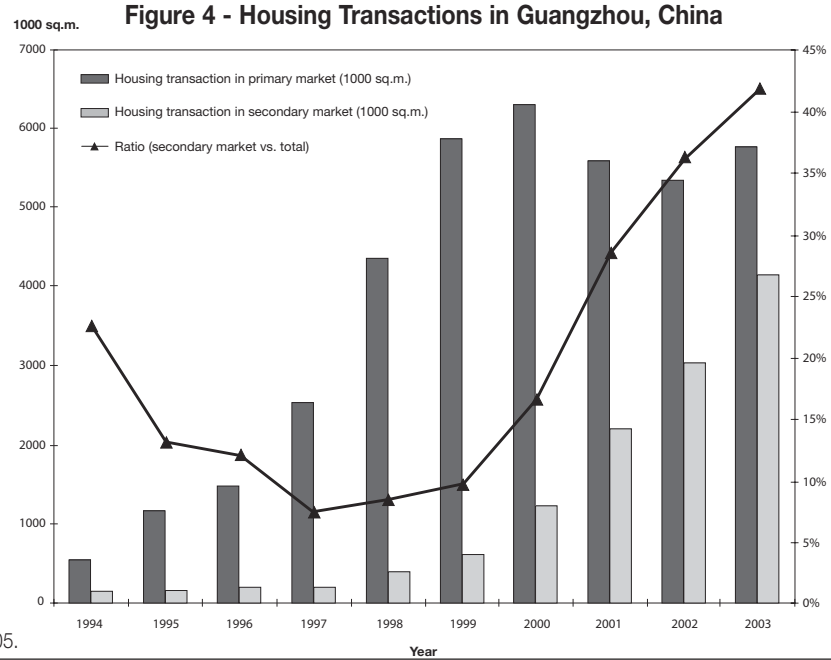
7.44 million sq. m. with a total value of RMB 43.5 billion *yuan* (US$5.4 billion) in 2004, representing an increase of 17.6% and 30.4% over last year's figures respectively (Tan et al., 2005, p.5).

Housing mortgages are a lucrative business for Chinese banks because it generally gives a high profit margin and a low default rate. The cost of funds, as represented by China's current saving deposit interest rates, are only between 0.72% and 3.6%, whereas mortgage interest rates range between 5.22% and 6.12%. Housing mortgage default rates, according to informed sources, are within 1-2%. Despite these favourable features, the growth of housing mortgages is constrained by history as well as the complex institutions of housing market. State-owned commercial banks are under the strategic direction of the central bank and hence their mortgage loan conditions show little competitive variations to customers. Another reason is that the loan business of Chinese banks remains heavily biased towards construction lending to property developers and housing mortgage for first-hand property. Since the late 1980s, China has experienced an unprecedented scale and speed of property demolition and land development. Numerous high-rise buildings are constructed on greenfield sites and new floor areas are completed to replace old structures on brownfield sites. Much of these development activities have been financed by commercial bank loans. These are then followed by tie-in selling of mortgage loans to buyers upon project completion.

Chinese banks are generally more interested in offering home mortgages for first-hand housing (ie new housing) than for secondary market (ie existing housing). Cost consideration and risk management are two major reasons. First-hand housing units in new development projects tend to have much clearer and less complicated property titles and hence the costs of due diligence are less. Operating costs are also much lower than those for secondary housing mortgages because the banks can achieve an economy of scale in mortgage lending for the entire building project. For instance, a small mortgage team of the bank can handle and process all applications for mortgage loans from buyers of all the housing units of a single project in a cost-effective and wholesale manner. Furthermore, as a precautionary measure against credit risk, Chinese banks normally require project developers to provide guarantees of repaying the mortgage loans in case of default on the part of home buyers. This measure is a safeguard against possible bank losses associated with fraudulent mortgage applications from related parties to developers.

Secondary housing mortgage is comparatively disadvantaged because no guarantee from developers is available and it is also difficult for banks to achieve cost economy in such retail banking business. The Project developer is no longer a contractual party in transactions of second-hand housing and will not provide a guarantee to support such mortgages. Furthermore, according to an internal audit of a Chinese bank, processing every single application for second-hand mortgage loans by a local branch office would involve at least two man-days of an account manager and other administrative expenses, which are considered relatively uneconomical in relation to the small value of the subject loan (Hu, 2003). However, when the economy becomes increasingly mature, secondary housing units will eventually constitute the mainstay of all housing market transactions. This is happening in a place like Guangzhou which has spearheaded other mainland cities in terms of housing market maturity. Its volume and proportion of second-hand

Figure 4 - Housing Transactions in Guangzhou, China



Source: Tan et al., 2005.

housing transactions have risen rapidly since 1998 (Fig. 4). In 2003, for instance, more than 40% of housing space transacted in its urban districts came from the secondary housing market.

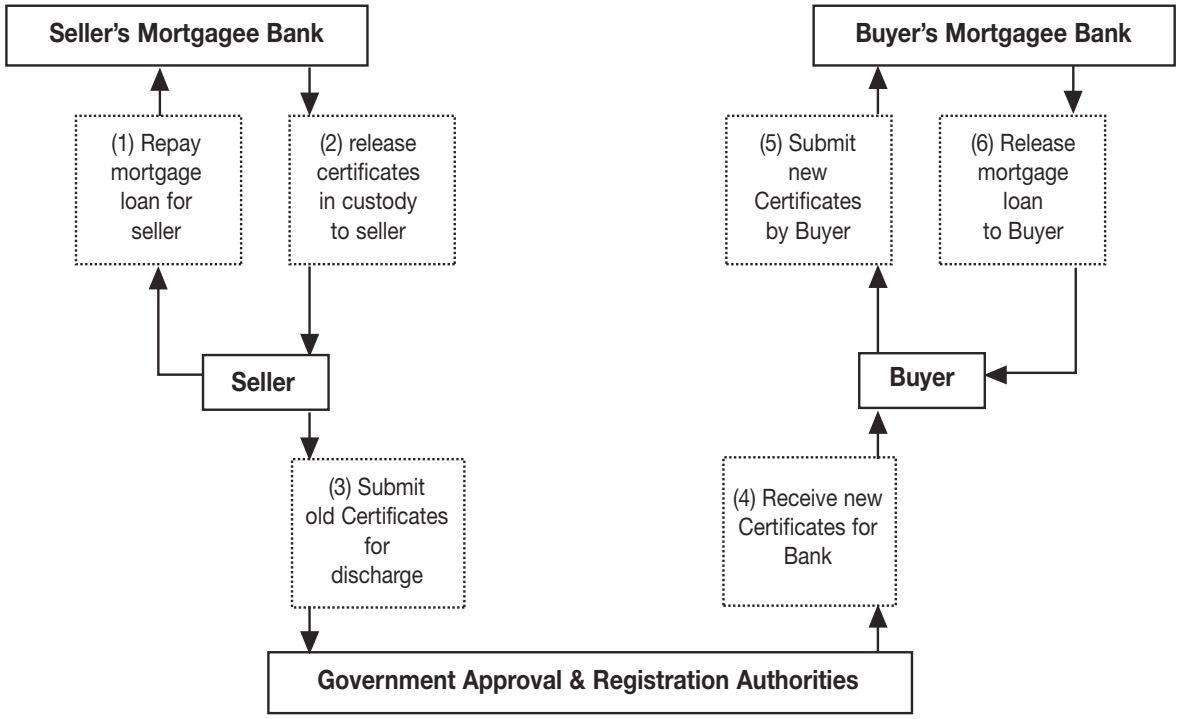
4. Bridging the Missing Link

Chinese banks have to face up to this trend. In Guangzhou, for example, a mortgage loan service for second-hand housing was first offered in 1998, three years after that for the primary housing market. This undoubtedly provided a key input to the enormous growth of housing transactions in the secondary market. Another major factor, which is often neglected, is the role played by property agents in facilitating housing transaction process. Property agents are commonly regarded as middlemen in providing property market information and matching vendors and buyers in property transactions (Jud, 1983; Bailey, 1991; Aronld, 1992; Bridge, 2001). Such interpretation ignores a peculiar financial intermediation function performed by some mainland Chinese property agents in facilitating the growth of housing mortgage loans for second-hand housing units. This is an unusual function because property agents are normally expected to bridge an 'information gap' rather than a 'financial gap' between buyers and sellers in housing transactions.

This 'missing link' stems from a mismatch of property registration and mortgage banking systems in China. The Chinese government requires a compulsory registration of all title transfers of real properties. Registration of a title transfer, with the issue of a new 'Certificate of Property Title' *(Fang Chan Zheng)* by the government authority to replace the previous one, will formally vest legal ownership title of a subject property to a newly registered buyer. If the buyer wishes to apply for a mortgage loan, this Certificate is normally held by the mortgagee bank in custody, and the government authority will also register the bank's interest by issuing a 'Certificate of Other Rights Over Property' *(Ta Xiang Quan Zheng)* to the mortgagee bank. China's national banking law prescribes a mortgagee bank to possess such a Certificate before releasing a mortgage loan to a borrower. Complication occurs when a second-hand housing property under transaction is subject to an existing mortgage loan.

An individual seller has to retire the entire housing mortgage loan first *before* his mortgagee bank could agree to release the two Certificates so that the government authority could amend the registration record. The problem is that, a prospective buyer will *not* get a mortgage loan unless he could submit a new 'Certificate of Property Title' and the said property is already clear of other outstanding rights held by third party (Fig. 5). Thus, buyer and seller may enter into a deadlock if *both* of them have to rely on housing mortgages to complete the transaction. This situation would not happen in western cities within which the redemption of an existing loan and the grant of a new loan for a property can take place concurrently. Mortgagee banks and conveyancing lawyers communicate with one another to complete money transfer in

Figure 5 - Mortgage Loan Procedures for Second-hand Housing: Without Property Agent



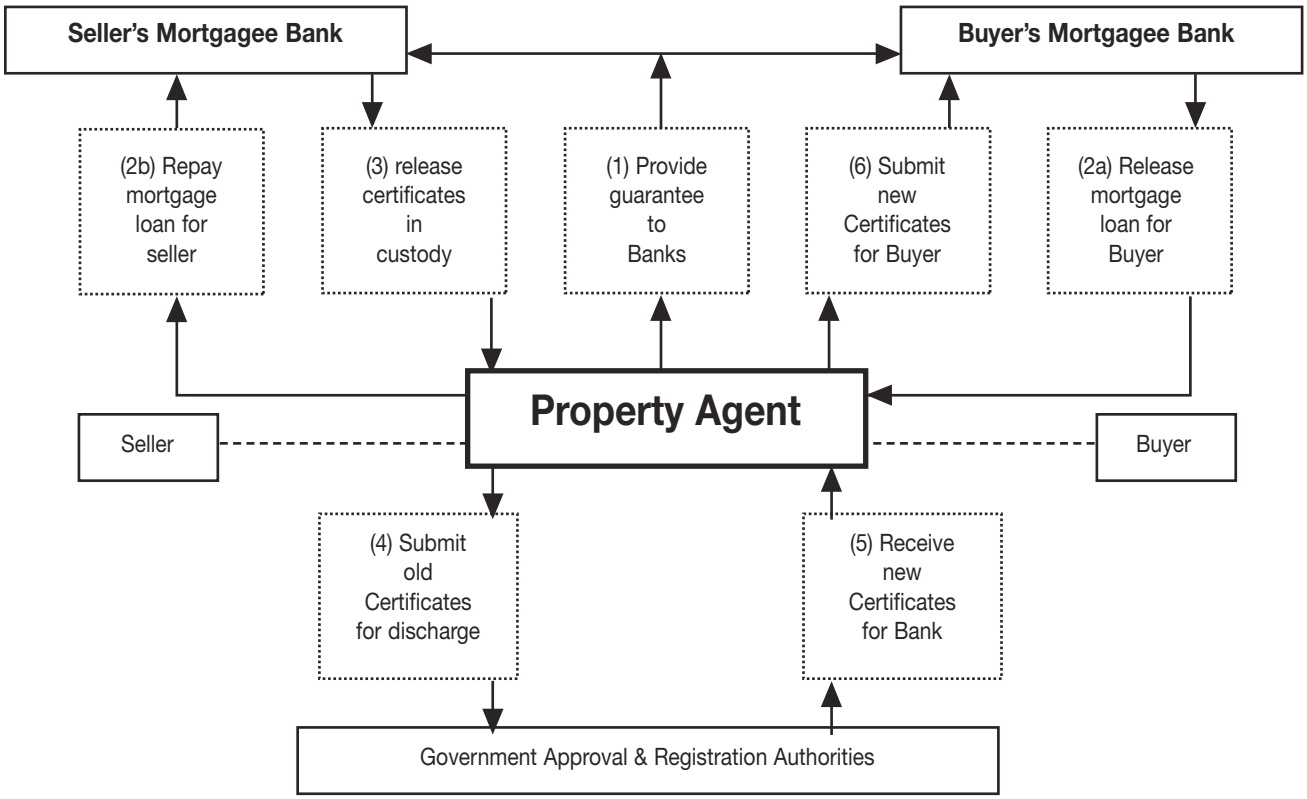
the absence of agreed buyers and sellers. In so far as mortgage lending is concerned, no such mechanism has been established in China.

Property agents have emerged to bridge this 'missing link' in the transaction process. For instance, some large property agency firms in Guangzhou provide an innovative package of 'mortgage services' for home sellers and buyers in order to facilitate transactions and close more deals. These services include offering short-term financial guarantees to the banks, performing the initial evaluation of buyers' repayment capability, providing temporary custody of the key certificates on behalf of mortgagee banks and completing title transfer registration with government departments (Fig. 6). These services relieve the financial burden of sellers from retiring the existing loans before sale completion, and reduce the risks faced by Chinese banks in releasing mortgage loans before receiving the custodial certificates. Mainland Chinese property agents have expanded beyond their conventional match-making function into financial intermediary business, which is crucial to the growth of China's housing mortgage market under its imperfect institutions.

5. Conclusions

After nearly three decades of market reform, China has now emerged to become a continent of tremendous economic opportunities. Strong economic growth, improving household incomes and rising wealth have led to an increasing demand for better housing. Privatization of housing under socialist market reform has activated

Figure 6 - Mortgage Loan Procedures for Second-hand Housing: With a Property Agent



Source: Authors

individual housing transactions and increased home ownership of the Chinese population. Housing mortgage was a latecomer to socialist China but its development is indispensable to a healthy growth of its housing market. Provision of home mortgage loans by Chinese banks facilitates more transactions of private housing especially in the secondary market in major Chinese cities. The total value of home mortgage loans has increased by more than ten-fold within the past five years. Mainland Chinese banks currently dominate the market, but with the gradual opening of the finance industry under the WTO agreement, entry of more efficient foreign banks is expected to impose a stronger competitive threat to local players. This paper suggests that there is still a huge growth potential of China's housing mortgage market. At present, individual housing loans take up less than 10% of overall bank lending. This is a low percentage compared to countries with a mature housing market. We argue that the development of China's housing mortgage market, especially for second-hand housing transactions, is constrained by inefficient institutions of title registration and mortgage bank lending systems. Nonetheless, market liberalization and profit opportunities have encouraged a spontaneous emergence of private solutions to provide a 'missing link' that gets over such inefficiencies. Some mainland Chinese property agents are found to provide a comprehensive package of services including property appraisal, property title validation, loan eligibility screening and financial intermediation for buyers, sellers and mortgagee banks. Their enterprising activities, emerged out of competition rather than government order, serve to reduce the costs of transacting in the housing market. Without these unconventional services, the housing mortgage and transaction markets in China could not have achieved their current level of market maturity and vibrancy. These market practices, somewhat neglected in the literature, are entirely dissimilar to those of their counterparts in a mature economy. Future prospects for the home mortgage and the housing market in China are embedded in the evolution of these institutions and the innovative activities of the organizations involved.

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China's Housing Provident Fund: Its Success and Limitations

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In recent years, home ownership has become a key item on the agenda of China's housing reforms. As a consequence of this policy direction, outlined in State Council decisions in 1994 and 1998, the issue of housing finance has gained prominence in the minds of prospective home-owners. Although the Chinese government urged state-owned banks in 1998 to expand mortgage lending, the main policy tool to enhance housing affordability for urban residents has been the Housing Provident Fund (HPF). This system was first introduced in Shanghai in 1991, soon followed by other cities, and was then propagated as national policy from 1994. Since the Housing Provident Fund[1] system has been in force over ten years in Chinese cities, it seems appropriate to evaluate the progress and limitations of this policy. In addition, there have been few detailed studies on the functioning of the Housing Provident Fund. This article aims to remedy that shortcoming[2].

The article begins with a study of income levels in urban China and it compares people's earnings with prices on the housing market. While Chinese statistics are problematic with regard to their accuracy and reliability, we can safely conclude that there is a gap between people's earnings and the money needed to buy an apartment. The second section traces the beginning and evolution of the Housing Provident Fund policy, and it explains its basic principles. As shown in this section, the policy aims of the HPF have shifted over time. While the initial focus lay on financing housing construction, in 1998 these policy loans were scaled down and were replaced by an emphasis on loans for households. The third section evaluates to what extent city-level HPFs have attained the goal to secure monetary contributions from enterprises and workers. It is shown that fund collection efforts have been relatively successful, but that implementation is uneven across regions and vis-à-vis different enterprises. Problems of fund collection are linked to legacies of the planned economy but are also due to obstacles arising from an economy in transition. The fourth section examines the usage of HPF funds with a special focus on individual housing loans. It shows that fund usage has been limited and that only a small share of the contributors has benefited from the HPF system. The final section examines the social equity aspects of the Housing Provident Fund. It is argued that this employment- and income-based system of housing finance may have discriminatory effects on low-income earners, temporary staff, employees in non-state enterprises and in the informal economy, and laid-off workers.

Earnings and household purchasing power

The importance of wage levels for people's well-being is a new phenomenon in China. During the planned economy – 1949 to 1978 – money and wages had a less prominent position in people's minds and in their daily lives. To begin with, it was an economy of constant shortages, and available goods and services were mainly allocated through administrative methods rather than money transactions (Naughton 1996: 26-31). Thus, the wages of urban workers and staff were kept low, and occasional wage adjustments were the result of bureaucratic decisions. However, for workers in state-owned and collective enterprises, and for staff in government agencies, their work units *(danwei)* were major providers of welfare benefits, goods and services[3]. These welfare benefits – combined with job

[1] Two notable exceptions are Lee (2000), and Wang (2001).

[2] This study is based on data collection during three field trips in China – winter 2003, summer 2004, and autumn 2004. Interviews were conducted with government officials at the Ministry of Construction, and with officials at Housing Reform Offices and HPF Management Centers in Tianjin, Beijing, Jiangxi and Guangdong provinces. Other sources of information consist of published and unpublished (internal) materials provided to me during the interviews, Chinese newspaper items, and secondary sources.

[3] Workers in state-owned enterprises (SOEs) could be expected to be taken care of from cradle to grave. Large factories – with maybe 50.000 – 60.000 workers – would have their own day-care centers for children, schools, hospitals, banks, post offices, transportation services, and subsidized food supplies.

security – compensated for the low wage levels, and lessened the importance of money. Chinese enterprises were not simply production units but also welfare providers and institutions of social control (Walder 1986: 28-29).

As part of the urban welfare package in the planned economy, public sector housing was provided virtually free of charge to the employees. Rents were kept artificially low and represented less than 1-2% of a worker's monthly wage (Interviews BJ 2003, BJ 2004a). As a consequence, China's public housing system became seriously under-financed, and this was a key factor behind the housing reforms which started in 1980. The main orientation of China's housing policy over the last twenty years has been to move away from the traditional system of welfare allocation *(fuli fenpei),* or material allocation, toward a system of monetized allocation *(huobi fenpei)* of housing benefits. The basic aim of this policy – articulated already in the 1980s and stressed with even more emphasis during the 1990s – is that urban residents should spend a larger share of their incomes on housing consumption. This policy goal would either be attained by mandatory rent increases or by encouraging people to buy apartments and become home owners (Interviews BJ 2003, BJ 2004c)

By the end of the 1990s, the housing system in China had dramatically changed. Due to a massive construction boom in the 1980s, the previous problems of inadequate living space had been resolved for many urban residents (Wang and Murie 1999: 103-113). In addition, a large share of public housing had been sold off to sitting tenants. Many of them had bought their rental apartments at discounted prices from their work units, sometimes at very low prices such as 100-200 *yuan* per square meter. In Beijing, 75 per cent of public housing had been privatized by the end of 2004 and the situation was similar in other cities (Interview MoC 2004b, BJ 2005a, Wang 2003). In addition, a significant share of newly constructed housing had been purchased by work units and re-sold at discounted prices to their employees until this practice was banned in 1998 (Zhang 2000: 347, Interview MoC 2004b).[4]

These changes in housing policy – privatization of public housing, a shrinking rented sector, and the monetization of housing benefits – placed *new entrants* on the housing market in a vulnerable position. They mainly had to rely on their own earnings and try to save enough money to purchase a home. Although salary levels in Chinese industry increased rapidly in the 1990s and tangibly improved living conditions (Burell 2001: 210), the inflation rate remained high and limited people's purchasing power. The sale prices of new housing also kept rising in this period, due to higher construction costs. The price for commercial housing in urban China was set between 500 and 2,000 *yuan* per square meter in 1992 (Wu 1996: 1614), but in the late 1990s most large cities had reached the level of 3,000 *yuan* per square meter. Naturally, house prices in very large cities and economic centers as such Beijing, Shanghai or Guangzhou tend to be higher and rise more rapidly than in other cities.

Since economic development, price levels and people's incomes vary across China, the Ministry of Construction (MoC) suggested a set of regional guidelines for the sale of commercial housing in different parts of the country (Table 1). As shown in the table, house prices vary considerably in line with regional characteristics and housing standards. As a basic rule, however, medium-standard housing in most regions was sold at 2,500 to 4,000 *yuan* per square meter in 1998.

Table 1. Regional housing prices suggested by the Ministry of Construction (1998)

Category of city	Low housing Prices	Medium housing Prices	High housing Prices
1. The first group consists of Beijing, Shanghai, Guangzhou and Shenzhen: the four main economic centers.	1,500-2,000 *yuan* per m^2	above 4,000 *yuan* per m^2	8,000-10,000 *yuan* per m2
2. The second group is composed of regional economic centers, i.e. Tianjin, Hangzhou, Chongqing, Dalian, Wuhan	from 1,200 *yuan* per m^2	to	8,000 *yuan* per m^2
3. The third group are other provincial capitals such as Chengdu, Changsha and Lanzhou.	from 800 *yuan* per m^2	to	4,000 *yuan* per m^2
4. The fourth group is composed of medium-size and small cities at the prefectural level and below.	from 800 *yuan* per m^2	to	1,200 *yuan* per m^2

Sources: FBIS-CHI-98-147 (Xinhua News Agency, 27 May 1998), FBIS-CHI-98-348 (Xinhua News Agency, 14 December 1998), and CNA (1998: 6). Note: According to the MoC announcement in 1998, China's cities are divided in four categories according to their levels of economic development and the income of local residents.

[4] In March 1998, the State Council announced that all welfare allocation of housing from work units to their employees would be prohibited from mid-1998 and then quickly phased out (Beijing Review 1998).

In China, a distinction is made between the construction space *(jianzhu mianji)* and the living space *(shenghuo mianji)* of an apartment. When buying an apartment you have to pay for the construction space, but the actual living area is about 20 per cent smaller (Interview GZ 2003). For a couple to have a decent living space, they need to buy an apartment of about 90-100 square meters. That will give them a living space of 70-80 square meters. Assuming that the sale price is 3000 *yuan* per square meter, the Chinese couple has to deliver a down payment of 60,000 *yuan* (20% of the total) and pay 300,000 *yuan* in total for this apartment. In view of current wage levels in China, is this price level affordable for most urban residents? This question is not so easy to answer due to the mediocre quality of Chinese official statistics. These statistics suffer from problems of inaccuracy and under-reporting (Banister 2005), inadequate attention to people working in the informal economic sector, and the fact that people may have additional sources of income. Taking these statistical problems into account, we can still make a few general conclusions about China's housing affordability by taking a look at the annual earnings of urban employees (see Table 2).

Table 2. Urban manufacturing earnings (2002) – by province. Average annual per capita and household earnings and their housing purchasing power.

Provinces	Individual average annual earnings (*yuan*)	Couple average annual household earnings (*yuan*)	Time needed for a 60,000 *yuan* down payment. Entire HH earnings (years)	Time needed for a 60,000 *yuan* down payment. 30% of HH earnings (years)	Time needed to purchase a 300,000 *yuan* apt. Entire HH earnings (years)	Time needed to purchase a 300,000 *yuan* apt. 30% of HH earnings (years)
Henan	7,795	15,590	3.8	12.6	19.2	64.0
Shanxi	7,892	15,784	3.8	12.6	19.0	63.3
I. Mongolia	8,135	16,270	3.6	12.0	18.4	61.3
Jiangxi	8,261	16,522	3.6	12.0	18.1	60.3
Anhui	8,326	16,652	3.6	12.0	18.0	60.0
Heilongjiang	8,755	17,510	3.4	11.3	17.1	57.0
Hebei	8,810	17,620	3.4	11.3	17.0	56.7
Hubei	8,876	17,752	3.4	11.3	16.8	56.0
Shandong	8,898	17,796	3.4	11.3	16.8	56.0
Guizhou	9,279	18.558	3.2	10.7	16.2	54.0
Shaanxi	9,340	18,680	3.2	10.7	16.0	53.3
Ningxia	9,503	19,006	3.1	10.3	15.8	52.7
Hainan	9,672	19,344	3.1	10.3	15.5	51.7
Sichuan	9,816	19,632	3.0	10.0	15.3	51.0
Hunan	9,825	19,650	3.0	10.0	15.3	51.0
Guangxi	9,860	19,720	3.0	10.0	15.2	50.7
Gansu	10,047	20,094	3.0	10.0	14.9	49.7
Chongqing	10,202	20,404	2.9	9.7	14.7	49.0
Xinjiang	10,231	20,462	2.9	9.7	14.7	49.0
Jilin	10,231	20,462	2.9	9.7	14.7	49.0
Tibet	10,258	20,516	2.9	9.7	14.6	48.7
Liaoning	10,553	21,106	2.8	9.3	14.2	47.3
Qinghai	10,717	21,434	2.8	9.3	14.0	46.7
Fujian	11,627	23,254	2.6	8.7	12.9	43.0
Jiangsu	11,731	23,462	2.5	8.3	12.9	42.7
Yunnan	11,752	23,504	2.5	8.3	12.7	42.3
Zhejiang	13,435	26,870	2.2	7.3	11.1	37.0
Tianjin	14,781	29,562	2.0	6.7	10.1	33.7
Guangdong	14,958	29,916	2.0	6.7	10.0	33.3
Beijing	18,157	36,314	1.6	5.3	8.3	27.7
Shanghai	21,957	43,914	1.4	4.7	6.8	22.7
National	11,152	22,304	2.7	9.0	13.4	44.7

Data source: SSB 2003: 171-179. Author's calculations. Note: The down payment of 60.000 *yuan* equals 20% of the full price of the apartment, i.e. 300,000 *yuan*. 1 *yuan* equals 0.125 USD. We make the assumption that a couple can set aside a maximum of 30% of their earnings to save for the down payment and house purchase. In fact, savings ratios will be lower for low-income couples, and higher for high-income couples.

As shown in Table 2, there are large regional variations in annual per capita earnings. A working couple in Shanghai earn almost three times as much as a couple in Henan province. These wage differences have repercussions for their ability to save enough money for a down payment or pay the full price of an apartment. A working couple in Shanghai, where wages are high, will reach the down payment target of 60,000 *yuan* in 1.4 years if they devote all their earnings on this. But people cannot spend all their incomes on housing, so with a savings ratio of 30% it takes them almost five years to reach that sum. For a full payment of the apartment, the Shanghai couple needs to set aside 30% of their earnings for a period of nearly 23 years. It should immediately be clarified that although wage levels in Shanghai are reasonably high, housing costs are higher than in other provinces, and 300,000 *yuan* does not allow you to buy a large apartment.

At the other extreme, we see that a working couple in Henan province needs almost four years of their full earnings to reach the down payment target of 60,000 *yuan*, and it will take them over twelve years with a savings ratio of 30%. If they set aside one-third of their combined earnings for a period of 64 years, they will be able to pay off the 300,000 *yuan* apartment. To be sure, housing prices are lower in Henan province, but in provincial capitals and all major cities they are not lower than 3,000 *yuan* per square meter. The calculation is thus indicative of the relationship between people's incomes and the cost of becoming a home owner. It is demonstrated in Table 2 that there the cost of new housing – without subsidies or mortgage finance – represents a heavy burden on the household budget for employees in the manufacturing industry. However, a few cities and provinces form a special group, due to their higher wages. Manufacturing workers in Beijing, Shanghai and Tianjin, and in Guangdong province, have annual earnings between 15,000 and 22,000 *yuan*. This wage level seems to give slightly better conditions to save for a down payment and buy an apartment. We may ask ourselves if manufacturing workers in China are unusually badly paid compared to other occupational groups, but that is not the case. Factory workers are in a medium position of the wage hierarchy (see Table 3).

Table 3. Annual average per capita earnings (2002) – by occupational sector – in Beijing, Tianjin, and Jiangxi province

Occupation	Beijing	Tianjin	Jiangxi
1. Retail trade	15,620	** 10,202	** 5,495
2. Highway transport	15,333	10,934	8,742
3. Hotels	18,524	11,172	7,811
4. Catering services	** 12,611	11,512	5,747
5. Civil engineering	14,215	14,561	7,697
6. Manufacturing	18,157	14,781	8,261
7. Construction	14,497	15,190	8,153
8. Wholesale trade (food, beverages, etc.)	18,963	15,219	6,419
9. Education	24,447	16,799	9,752
10. Public institutions	25,761	16,928	9,870
11. Storage services	16,440	17,479	7,795
12. Railway transport	18,378	18,206	16,564
13. Government and Party agencies	26,291	18,209	10,493
14. Healthcare institutions	* 30,923	18,668	11,205
15. Post and telecommunications	26,341	21,892	** 12,760
16. Supply of gas, electricity and water	28,007	* 22,093	10,724
Average annual wage	21,861	16,223	9,151
**** Lowest annual wage**	12,611	10,202	5,495
***** Highest annual wage**	30,923	22,093	12,760

Sources: SSB 2003: 173-225. Author's calculations and rank-ordering of occupational wage levels. Note: 1 *yuan* equals 0.125 USD. Employee "earnings" *(baochou)* include basic wages, overtime and supplemental salary, bonuses, allowances, benefits, and social insurance payments. (Cf. Banister 2005: 24-27 for a review of the concept of earnings in Chinese official statistics).

Table 3 shows that wage levels in Beijing are higher than in Tianjin and in Jiangxi province for nearly all occupational groups. This is a reflection of the relative degree of economic development and the living costs in these locations. It also signals their levels of political importance. Jiangxi is at the lowest rank of the ladder and quite a distance from both Beijing and Tianjin. But *within* each locality, the wage hierarchy is similar, with the highest earnings directed towards employees in government agencies, public institutions, healthcare, and state companies maintaining a monopoly position. By contrast, people working in retail trade, hotels, catering services, transportation and manufacturing have low or medium-level earnings. Such occupations tend to be closer to the private sector and more exposed to market forces. In view of their lower wages, these workers will find it more difficult to make the savings needed for home ownership.

Several scholars have noted the problem of housing affordability in China. This issue became more salient after the restructuring of state industry, in the 1990s, which left many lay-offs and widespread job insecurity in its wake. In other words, it is not only people's propensity to save for home ownership, but also their ability to find stable employment – and income security – in a changing economy which pose a challenge to housing reforms. The key problem, however, is the discrepancy between people's incomes and housing prices.

> *The biggest hurdle to increasing home ownership among urban workers is affordability […] In most countries, homes priced at three to five times annual household income are considered affordable, while housing prices in China are often 10-20 times family income. Chinese reformers hope to achieve a 4:1 ratio between housing prices and family income, but reaching this goal appears to be a long way off (Rosen and Ross 2000: 79).*

Development of Housing Provident Funds

To bridge the gap between people's incomes and the price for housing, the Chinese government has introduced a series of policies aimed at both the supply side and the demand side of housing provision. On the supply side, there have been attempts to bring down housing construction costs. Low-cost housing projects were planned and implemented during the 1990s under the "comfortable housing" *(anju)* project. This project involved policy loans by the central government, matched by tax exemptions and subsidized allocation of land by local authorities and profit caps imposed on real estate developers. This policy was slightly adjusted in 1998 and continued under the label "economic housing" *(jingji shiyong fang)*. The key idea was to produce low-cost housing for sale to medium-income households. Sale prices of these apartments were set lower than open market prices to make them affordable to households with limited earnings (Interview MoC 2004b, Wang and Murie 2000, Wang 2001: 631-32, CNA 1994, CNA 1996: 7, Rosen and Ross 2000: 80-81).

The Housing Provident Fund (HPF) system has been an important supplement to low-cost housing, and it is targeted to improve the demand side of housing consumption. It aims to enhance people's housing purchasing power through a system of joint savings – with mandatory contributions from employees and work units – and placement of the funds into individual accounts. The savings in these HPF accounts allow workers to apply for low-interest housing loans (Interviews BJ 2004c, TJ 2004).

Shanghai was the first city to introduce a Housing Provident Fund on a large scale. It was part of a larger housing reform package adopted by Shanghai's government, and it was endorsed by the State Council in May 1991. This policy innovation was quickly announced in news media and many provincial and city governments sent delegations to Shanghai for inspection visits. Similar HPF schemes were established in Beijing, Guangzhou and Tianjin in 1992, and soon other cities across China followed suit. In 1993, the third national conference on housing reform was held in Beijing. In its wake, the State Council's Leadership Group on Housing Reform issued the *Decision on Deepening the Urban Housing Reform*, and this policy document urged major cities to set up Housing Provident Funds. This was the national government's effort to institutionalize the HPF system across China (Interviews BJ 2004a, MoC 2004b, TJ 2004, GZ 2004a, Lee 2000: 65, Wang 2004: 90). As a consequence, nearly 200 cities introduced HPF schemes in the 1990s, and in 2004 almost all medium-sized cities had adopted this policy (Wang and Murie 1999: 160, Interview MoC 2004b).

Eventually, after the State Council's housing reform decision in 1998, it was decided the HPF system needed a solid legal basis. This policy was now reaching the end of its experimentation phase and needed to be consolidated. Hence, in March 1999, the State Council issued the *Housing Provident Fund Management Provisions*, as a legal tool to standardize HPF decision-making procedures and fund management. From this point onward, all cities (above county level) were required to set up HPF schemes and it was stipulated that all enterprises (including private firms, joint ventures and private enterprises), government agencies, public institutions and social organizations with employees on their payrolls had to take part in the HPF system (State Council 1999). Subsequently, in March 2002, the *Amended Housing Provident Fund Management Provisions* were issued by the State Council. The amended text extended the policy scope to include township enterprises, and it clarified the legal clauses on fund usage, financial auditing and supervision, and penalties that would be imposed on enterprises, agencies or individuals who violated these regulations (SC 2002).

Apart from this effort of legal standardization, the State Council made another major policy shift in 1998-99. From that point onward, HPF funds could no longer be used as policy loans for house construction, but should be exclusively

used to finance individual loans for home ownership (Lee 2000, Interview BJ 2004a, MoC 2004b). It can therefore be said that although the HPF system was first established in 1991-92, it is only in recent years (1998-2005) that it has been re-oriented to grant house loans to Chinese households. In the following sections, I examine how HPF schemes have operated – with respect to fund collection and loan allocation – in a few cities.

Fund collection

The collection of HPF contributions is supervised by local HPF management centers which operate under the authority of Housing Committees appointed by the city government. The Housing Committees set HPF contribution ratios – in light of local economic conditions – and approve the annual plans for collection and usage of HPF funds. They also perform year-end reviews of the execution of these plans, along with financial auditing by Finance Bureaus. The HPF management center is responsible for all routine operations and is directly involved in collection, financial supervision, and loan management of HPF funds (SC 2002, Wang 2001: 635, Interview TJ 2004).

Table 4. Beijing City Housing Provident Fund (2004)

Year	Contributing work units	Workers and staff covered	Accumulated collection of HPF funds (million *yuan*)	Households granted HPF loans	Annual grants of individual HPF loans (million *yuan*)
1998	9,602	1,928,000	6,780	7,710	631
1999	n.d.	2,224,000	10,590	8,077	1,150
2000	n.d.	2,316,000	15,330	20,657	3,900
2001	n.d.	2,324,000	21,350	39,520	7,460
2002	n.d.	2,344,000	28,650	29,517	5,560
2003	n.d.	2,344,000	37,420	25,726	5,210
2004	n.d.	2,589,000	45,400	32,420	7,230
			Total:	164,999	31,300

Sources: Interviews in China (BJ 2004c, BJ 2005b) and written materials provided during the interviews. Wang (2001: 637). Note: Author's calculations. N.d. = no data.

Table 5. Nanchang City Housing Provident Fund (2004)

Year	Contributing work units	Workers and staff covered	Accumulated collection of HPF funds (million *yuan*)	Households granted HPF loans	Annual grants of individual HPF loans (million *yuan*)
1998	n.d.	110,000	90	388	3
1999	n.d.	n.d.	235	1,144	27
2000	n.d.	n.d.	431	1,300	45
2001	n.d.	n.d.	661	1,496	90
2002	n.d.	n.d.	930	1,989	154
2003	3,100	300,000	1,289	3,515	459
2004	3,100	330,000	1,689	3,953	530
			Total:	13,785	1,308

Sources: Interview in China (NC 2004) and written materials provided during this interview. NSB 2004: 31. Note: Author's calculations. Figures have been rounded to the nearest million *yuan*. These statistics exclude households and HPF loans for staff in province-level units and the railway industry, which are handled separately. N.d. = no data.

How successful have HPF management centers been in building up HPF funds based on regular monetary contributions from enterprises and individuals? The answer to this question depends on our standards of evaluation. Collection of HPF funds – and their rate of increase – depend on stipulated contribution rates, the number and size of enterprises and other work units in the locality, the wage levels and financial strength of these work units, their willingness to comply with HPF policy, and the diligence of the local HPF centers in making sure that their regulations are universally enforced.

Tables 4 and 5 demonstrate two extreme cases of HPF fund collection in two localities. On the one hand, there is Beijing, which started in 1992 with a contribution rate of 5% of the employee's monthly salary and matched by another 5% by his/her employer. The contribution rate was gradually raised to 8% in 1998 and further to 10% in 2003. By 2004, about 50-60% of Beijing's 4.8 million employees were covered by the HPF policy (Interview BJ 2004c, MoC 2004b, SSB 2003: 173). In combination with fairly high wage levels in Beijing, this generated 5-8 billion *yuan* of funds per year, and an accumulated 45 billion *yuan* of HPF funds in 2004 *(see Table 4*). In this respect, we can say that Beijing's HPF management center successfully carried out its mandate.

By contrast, Nanchang is the capital of Jiangxi province, a region which has lingered in the backwaters of economic reforms and suffers from a lack of foreign investment. Wage levels in both the public and private sectors are among the lowest in China *(cf. Tables 2 and 3).* According to interviews with local officials, there are some 500,000 workers and staff in Nanchang city, but only 330,000 of these employees are covered by the HPF scheme (66%). In 2004, there were 3,100 work units which had signed up for the HPF scheme, but only 2,200 of these enterprises and agencies made regular payments. Trustworthy contributors were mostly government agencies and public institutions. In fact, there is an estimated total of 6,000 work units in Nanchang, if all unregistered small non-state enterprises are taken into account, and the majority of these firms did not even bother to sign up for the HPF scheme. In the experience of Nanchang HPF officials, it was very troublesome, and hardly worthwhile, to go after private enterprises, foreign enterprises or joint-ventures and ask them to comply with HPF regulations (Interview NC 2004). As a result of these adverse factors, the annual collection of HPF funds was modest, ranging between 200 and 400 million *yuan*, and in 2004, the total HPF collection in Nanchang had reached about 1.7 billion *yuan*.

While both Beijing and Nanchang are extreme cases, at opposing poles of a spectrum, the general situation in other parts of China gives a mixed picture. The contribution rates to HPF funds varied greatly throughout the 1990s, and in some places it was as low as 1-2% of local employees' monthly salaries. Eventually, this was standardized to a minimum ratio of 5% of the enterprise wage sum, thanks to the State Council's *Provisions on HPF Management* in 1999 (Interview MoC 2004b, SC 1999). Another problem has been the slow inclusion of all enterprise forms into the HPF scheme, both in a regulatory sense and in actual practice. In cities where there is a strong presence of joint-ventures and foreign firms that employ temporary workers – HPF centers are reluctant to enforce policy in these enterprises, and content themselves to impose it on public institutions, state enterprises, and government agencies (Interviews GZ 2004a, 2004b, 2004c, YN 2005). In this situation, the HPF policy coverage becomes very limited as compared to the number of enterprises and workers that de facto are located in the city.

HPF participation rates seem to be highest in large cities, such as Beijing, Tianjin and Shanghai (98%), and in some cities located in wealthy provinces such as Jiangsu and Zhejiang (90%), but in most cities the policy coverage is less than 50% (Zhang 2000: 343). According to the Ministry of Construction, which supervises the HPF system at the national level, there were 80 million workers and staff registered in 2004 but, due to the financial difficulties of many firms, only about 60 million workers made regular contributions to the HPF funds. The remaining 20 million employees were labelled as "intermittent" or "erratic" contributors. And, of course, laid-off staff simply drop out of the system (Interview MoC 2004b). It should also be mentioned that temporary or migrant laborers – numbering about 150 to 200 million persons in urban China – are not included in the system. According to current regulations, only those workers who sign an employment contract for one year or longer are required (entitled) to take part in the HPF scheme. If the narrow definition is used – ie on-post urban workers and staff – this amounts to a total of about 100 million people. So the overall participation rate in the HPF scheme in urban China is either 60% or 80%, depending on how you count (Interview MoC 2004b). A less narrow definition of "urban employees" would probably generate a figure of 30-40%, which is much less impressive.

Keeping these shortcomings in mind, the collection of HPF funds in recent years has been fairly impressive. The four cities examined here – Beijing, Guangzhou, Tianjin and Nanchang – managed to steadily increase HPF fund collection over the years. By 2004, Beijing had accumulated 45 billion *yuan*, followed by Guangzhou and Tianjin with 29 and 24 billion *yuan*, respectively. Nanchang, with its less developed economy smaller population, and seemingly weak enforcement, trailed far behind with only 1.7 billion *yuan* (Table 6).

This mixed picture is supported by other sources of information. According to the Ministry of Construction, collection of HPF funds varies considerably between cities. Large economic centers such as Shanghai and Beijing are able to raise 10-30 billion *yuan* in HPF funds per year, whereas medium-sized cities can collect 3-4 billion *yuan*, and small cities only can raise 20-40 million *yuan* (Interview BJ 2004b). This may be seen as a reflection of the uneven economic development in China today. While there is no national-level Housing Provident Fund, the Ministry of Construction is in charge of aggregate HPF statistics. For

Table 6. City comparison of accumulated HPF funds (million *yuan*)

Year	Beijing	Guangzhou	Tianjin	Nanchang	National
1992	-	88	270	-	-
1993	-	215	520	-	-
1994	-	380	770	-	11,000
1995	-	714	1,230	-	11,000
1996	-	1,276	2,090	-	39,300
1997	-	2,059	3,390	-	79,900
1998	6,780	3,362	5,110	90	123,100
1999	10,590	4,889	7,090	235	140,900
2000	15,330	6,086	9,570	431	140,900
2001	21,350	-	12,640	661	332,600
2002	28,650	-	16,560	930	413,100
2003	37,420	22,297	-	1,289	556,300
2004	45,400	28,800	24,000	1,689	630,000

Sources: Interviews in China (MoC 2004b, BJ 2004c, BJ 2005b, GZ 2004a, NC 2004, TJ 2004) and written materials provided during these interviews. Other sources: Gateway (2006), FBIS-CHI-1999-0823, FBIS-CHI-2000-0223, CNA (1996: 8), THR (2002). Note: Author's calculations.

China as a whole, the accumulated HPF amount rose from 11 billion *yuan* in 1994 to 630 billion *yuan* in 2004. A crucial question, however, is how these funds have been used.

Fund usage and extension of housing loans

At its inception in 1991-92, the Housing Provident Fund was mainly seen as a vehicle to raise funds for housing construction, and for several years large amounts of local HPF funds were used as policy loans for work units and real estate developers. From 1994 to 1998, the HPF scheme was used as a financial tool in producing affordable housing under the state-sanctioned *anju*-project (Interview MoC 2004b). During the 1990s, there were also conflicts over the use and authority over HPF funds. Several bureaucratic actors – including Construction Bureaux, Finance Bureaux, and banks – claimed that they were most suitable institutions to handle HPF funds. Naturally, they were all acting in self-interest but tried to couch their arguments in terms of economic efficiency and the common good (Interview BJ 2004b). Finally, these bureaucratic conflicts were resolved by the State Council and, starting in 1998, HPF funds were to be exclusively used as housing loans to individual households (SC 1999).

Table 7. Annual HPF housing loans (million *yuan*) to individual households

Year	Beijing	Guangzhou	Tianjin (a)	Nanchang
1992	-	-	> 1	-
1993	-	-	2	-
1994	-	-	6	-
1995	-	-	19	-
1996	-	-	101	-
1997	-	-	497	-
1998	631	-	1,330	-
1999	1,150	414	1,220	3
2000	3,900	636	2,240	27
2001	7,460	1,160	2,000	45
2002	5,560	1,524	2,420	90
2003	5,210	2,422	n.d.	154
2004	7,230	2,556	n.d.	459
Total (million *yuan*)	31,300	8,712	17,000	530
Total households	164,999	58,714	150,000	13,785

Sources: IInterviews in China (BJ 2004c, BJ 2005b, GZ 2004a, NC 2004, TJ 2004) and written materials provided during these interviews. Note: Author's calculations. Figures have been rounded to the nearest million *yuan*. (a) The total loan amount for households in Tianjin was provided during the interview (TJ 2004). N.d. = no data.

According to the *State Council's Provisions on HPF Management* in 1999 (amended 2002), the HPF funds should be kept in individual accounts – one for each employee – in a designated local bank, and can only be withdrawn for certain purposes[5], subject to approval by the HPF management center. Since 1998, HPF management centers have focused on the task of granting loans to individual households. The maximum size of the loan depends on the sum deposited in an individual's HPF account. In Beijing, it is possible to borrow a sum that is ten times the deposited amount. Hence, if a person holds 10,000 *yuan* in her account, she can borrow 100,000 *yuan*. For individuals with large deposits in their accounts, however, the maximum limit was set at 300,000 *yuan*. Similar limits on HPF loans were set in the other localities: 200,000 *yuan* in Tianjin, 200,000 *yuan* in Nanchang, and 250,000 *yuan* in Guangzhou (Interview BJ 2004c, TJ 2004, GZ 2004a, NC 2004).

Table 7 illustrates the progress of individual housing loans in these four cities. Tianjin started to grant individual loans already in 1992, but on a modest scale. The real shift, however, took place in 1998, and since then HPF loans have risen quickly. By the end of 2004, Beijing had granted over 31 billion *yuan* in HPF loans to almost 165,000 households. Guangzhou and Tianjin had granted 9 and 17 billion *yuan* respectively, and Nanchang had granted 530 million *yuan*. It should be noted, however, that these amounts were small in relation to the total assets kept in the HPF system. In both Nanchang and Guangzhou, HPF loans represented only 30% of their local HPF assets. In 2001, vice-minister of construction, Liu Zhifeng, analyzed the problem of *idle* HPF funds. He noted that the national HPF loan ratio was 30% of the planned figure and this was deeply unsatisfactory. Some provinces had not even begun to grant HPF loans. Other provinces had only attained 5-10% of the planned figures (Liu 2001).

Table 8. Average level of HPF housing loans (*yuan*)

Year	Beijing	Guangzhou	Tianjin	Nanchang	National
1998	-	-	-	-	-
1999	-	-	-	-	-
2000	188,797	86,000	-	34,615	-
2001	188,765	122,000	82,304	67,160	-
2002	188,366	137,000	93,245	77,425	65,838
2003	202,518	174,000	-	130,583	71,688
2004	223,010	191,000	-	134,075	-

Sources: Interviews in China (MoC 2004b, BJ 2004c, BJ 2005b, GZ 2004a, NC 2004, TJ 2004) and written materials provided during these interviews. Note: Author's calculations, with aggregate loan amounts divided by the number of loan beneficiaries.

We may also wonder if the HPF loans are really sufficient to bridge the gap between individual incomes and housing prices. If we take 300,000 *yuan* as the standard price for a medium-sized apartment in large cities, it seems as though HPF loans are at least *partly* helpful in facilitating home ownership (see Table 8). The average size of HPF loans in Beijing has hovered around 200,000 *yuan*, and in Guangzhou they have risen from less than 100,000 *yuan* to almost 200,000 *yuan* in recent years. In Tianjin and Nanchang the size of HPF loans is lower, but this may be counterbalanced by slightly lower housing prices in these two cities. Nevertheless, it is obvious that prospective home buyers have to bring up additional funds – from 100,000 to 150,000 *yuan* – in order to purchase an apartment. That sum must be based either on individual savings, informal loans from friends and relatives, or commercial bank loans. It goes without saying that this will be a significant stumbling-block for low- or even medium-income households in China.

Social equity dilemmas

Scholars have noted certain biases incorporated into China's housing policies, and the HPF scheme is no exception. Zhou (2004: 8) argues that urban housing policies only are targeted at certain social groups, and that they have tangible discriminatory effects on other groups. The intended beneficiaries of the HPF scheme, for example, are only persons with stable and full-time employment – mainly those working in public sector work units and in financially strong enterprises. Other groups are clearly excluded, ie, laid-off workers, people with temporary employment, the self-employed, and migrant workers who live and work in a semi-legal status in Chinese cities.

Another equity issue concerns persons who actually are *included* into the HPF system, and who contribute to its maintenance and growth, but for whom the benefits are low or uncertain. These are mainly workers and staff with low incomes – usually below 15,000 to 20,000 *yuan* per year – and for whom HPF individual savings accumulate very slowly. For them, it will take a very long time to qualify for a down payment and become eligible for a sufficiently large HPF loan to finance a home purchase. In fact,

[5] The State Council (2002) revised Provisions on HPF Management, Art 24, state that legitimate withdrawals from HPF accounts are those used for (1) Purchasing, building, renovating, or repairing residences; (2) Leaving work posts due to old age or retiring from work; (3) Physically unsuitable for work with employer-employee relations terminated; (4) Resettling abroad; (5) Repaying the principal or interest of housing loans; (6) Rent exceeding the prescribed proportion of wages.

some scholars argue that the HPF loans mainly benefit high-income households, thus accentuating rather than reducing housing inequalities in China (Mostafa et al. 2003, Wang and Murie 2000: 406-09). In Wang's (2000: 857) analysis of Beijing, over 80 percent of the HPF lending went to high-income families. Based on survey research in Chongqing and Shenyang, Wang (2003: 182, 2004: 100-17) explains that a very low percentage of poor households had participated in, or were aware of the existence of, Housing Provident Funds.

Table 9. Share of the HPF contributors who obtain HPF loans (%)

Year	Beijing	Guangzhou	Tianjin	Nanchang	National
1998	0.4 %	-	-	0.4 %	0.7 %
1999	0.7 %	3.2 %	-	1.0 %	-
2000	1.6 %	0.9 %	-	1.9 %	-
2001	3.3 %	1.7 %	6.2 %	2.2 %	-
2002	4.5 %	2.6 %	-	3.1 %	-
2003	5.6 %	3.5 %	-	3.3 %	5.4 %
2004	6.4 %	4.4 %	-	4.2 %	-

Sources: Interviews in China (MoC 2004b, BJ 2004c, BJ 2005b, GZ 2004a, NC 2004, TJ 2004) and written materials provided during these interviews. Note: Author's calculations. The national percentages are based on the estimate of 60 million (active) HPF contributors – i.e. workers and staff – in all cities of China, in 2004 (Interview MoC 2004b).

When we examine how many of HPF contributors who actually benefit – in the sense that they are granted HPF loans – the results are striking and disappointing. In the four cities in our sample, less than 7% of the contributors became beneficiaries of this scheme. Admittedly, the share of people who can benefit has increased slowly, from 0.4% to 6.4% in Beijing between 1998 and 2004, but the figure is still disappointingly low. Similar patterns can be seen in Guangzhou, Tianjin and Nanchang *(Table 9)*. For China as a whole, the average figure is 5.4%.

If so many people contribute to the Housing Provident Fund, why are the beneficiaries so few and who are they? According to Wang (2001: 642), a large number of low-income employees make small contributions to the HPF system but their individual deposits are too low to make them eligible for loans. By contrast, a small percentage of high-income earners make larger deposits and can then draw on the vast resources of the HPF system to apply for – and obtain – low-interest housing loans. If this analysis is correct it entails a re-distribution of resources, but in the *wrong direction*, ie, from low- to high-income households. This, however, can only be a preliminary conclusion and must be analyzed on the basis of more detailed data on HPF lending practices and the economic characteristics of HPF loan beneficiaries.

Conclusions

The affordability gap between people's incomes and housing prices is clearly seen in China. Wage increases for the majority of urban households have not kept up with the rise in housing costs. Even though the rate of home ownership has reached 70-80% in most cities, this is not the result of people's purchasing power, because it is mainly a legacy of the privatization of former public housing during the 1990s. Due to a rapid shrinkage of the rental sector, new entrants on the housing market have few options but to make savings for home ownership in the newly constructed housing sector. If they are lucky, they may be eligible to buy "economic housing" which is sold at slightly lower rates. Most people, however, must expect to pay 3,000 *yuan* per square meter. For people with low- and medium-level incomes these housing prices are too expensive. In order to alleviate these problems, the Chinese government introduced the HPF system in 1991, and in 1998 it had been established in practically all cities. In addition, State Council decisions in 1999 and 2002 ensured that HPF funds would exclusively be used to promote home ownership among individual households.

While local Housing Provident Funds have been successful in accumulating funds, the policy coverage among enterprises and employees remains a problematic issue. Many private and foreign enterprises evade the HPF contributions – and financially weak enterprises are unable to make regular payments. The victims of such shortcomings are the employees in these firms. Depending on how we view official statistics, and our definition of who should be counted into the urban workforce, the policy coverage can be as high as 60% or as low as 30%.

Moreover, HPF management centers are only partially successful in promoting home ownership via HPF loans. Although the number of individual HPF loans has increased over the years, and the average size of HPF loan has risen, a large share of HPF assets remain idle in the banks. This is a waste of resources in view of the fact that so many households are in need of housing loans. In addition, the percentage of contributors who actually obtain a HPF loan is ridiculously low, on average less than 6%. Finally, it can be argued that the HPF policy is exclusionary vis-à-vis low-income families, laid-off workers, temporary workers and migrants. It is even possible that the HPF scheme entails an economic re-distribution from low- to high-income households and thereby accentuates housing inequalities. In future studies, a closer analysis of HPF lending practices can shed light on this issue.

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BJ 2005a. Interview with Head of Housing and Social Security Division, Beijing Housing Reform Office, 31 March 2005.

BJ 2005b. Interview with the Director of Beijing Housing Provident Fund Management Center, Beijing, 4 April 2005.

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TJ 2004. Interview with the Director of Tianjin Housing Provident Fund Management Center, Tianjin, 20 October 2004.

YN 2005. Interview with former Head of Yunnan Housing Provident Fund Management Center, Kunming (Yunnan), 18 August 2005.

A Study on the Chinese Housing Policy During Social Transition: Practice and Development[1]

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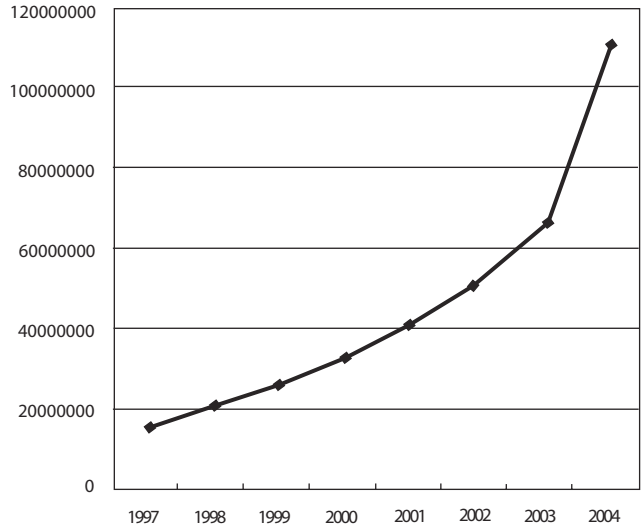
China has undergone tremendous economic reforms since 1978 which also included housing. The housing market only began to emerge after 1987 when land and housing reform were carried out in full force. Land and housing was no longer granted free of charge to government organs and state-owned enterprises. The housing market boom started in 1998. And this sector has grown at an incredible pace (see Figure 1). The paper will survey housing reforms since 1978 and then will in greater detail look at housing policy with regard to land, finance, public finance and social security. Finally, the paper will set forth the problems and difficulties encountered during the reform and the challenges ahead.

Figure 1: Housing Investment (ten thousands RMB)



Sources: *China Statistical Yearbooks*

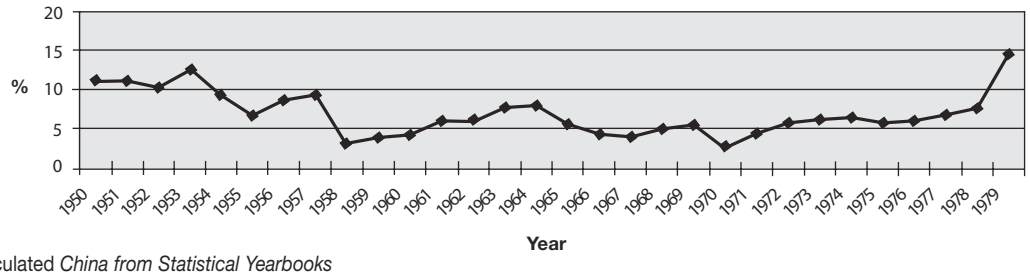
[1] Due to the existence of dualist urban-rural structure in China, rural land, including rural housing, belongs to the Rural Economic Collectivity. As a result, in the rural area, unlike in the cities, farmers still build their own houses. There is not a real housing market in rural areas. Thus, housing policy in this paper denotes urban housing policy.

I. The practice of housing policy during social transition

1. The command economy period (1949-1978)

The Chinese Communist Party came to power in 1949 and the Party established its goal of rapid development of heavy industry as a strategy in the hope of reaching development levels comparable to Western industrialized countries. China entered into an era of the planned economy. Under such a system, the "market" was not in operation and China operated and controlled the supply of consumer goods including houses. Housing allocation during this stage was characterized by "low salary, low rent plus subsidy and provision of goods in kind". All houses were uniformly built by the government; and funding for these constructions came from the National Construction Fund which was funded by the Ministry of Finance, thereby excluding any non-governmental resources from taking part. The shortcomings of such housing policy lies in the heavy financial burdens it imposed on China's public finances, the irrationality of low rent policy and the lack of a healthy market for housing transactions. At the same time, the government emphasized a "Production First, Living Secondary" slogan. Housing construction had to give way to other forms of production. Only 1.8 billion RMB per year was allocated to the construction of housing during that period; the share of residential housing construction funding was only 7.4% of the total construction fund (See Figure 2) and was only 1.5% of Gross National Product (GNP). Moreover, the annual construction of new houses was less than 50million m^2. Consequently, the living area per person decreased from 4.5m^2 in 1950 to 3.6m^2 in 1978. The housing policies of this period triggered off a severe housing shortage.

Figure 2: Housing Investment as a Percentage of Construction Fund (%)



Sources: Calculated *China from Statistical Yearbooks*

The transition to a market economy

(1) Double-track system period (1979-1997)

Housing system reform went hand in hand with the reform of the Chinese economic system and was in fact a major part of the reform. During this period, there was a gradual transition from welfare housing to the provision of housing subject to market forces. The policy of this period was characterized by the trial of housing, and by the parallel existence of welfare housing and a market mechanism of housing distribution. The reform went through several phases: the sale of state-owned housing[2]; encouragement of housing construction by private sector; an increase in the rent of state-owned housing while increasing state housing subsidy for tenant. The government's role as the sole provider of housing gradually diminished and funds from multiple sources became available for housing construction. Private ownership increased during this period. Housing finance also diversified -– mortgage loans were offered by banks. From 1979 to 1997, average annual investment in housing construction was 91.8 billion RMB. In 1996, housing investment was 26.6% of total fixed asset investment and was 9.06% of GNP. In 1997, the average building area per person reached 17.66 m^2, whole-unit occupancy (ie a whole house) reached 63%, private purchase of housing reached 59%. As the housing reform deepened, housing allocation by the government was gradually replaced by a new stage of housing. However, at the initial stage of housing, house prices and rents were low and government could not recuperate the cost of construction, thus causing losses to state assets (at that stage most houses were still being built by the government). In addition, the parallel existence of low rent state-owned housing and comparatively high prices of market value housing attenuated people's desire for the commercialization of the housing sector. As long as people were able to benefit from state-owned housing schemes, the demand for other forms of housing was sluggish. Welfare housing still existed. For example, some organizations bought market housing and then sold it to its employees at a very low price. Despite the defects of some reforms in this period, it represented a "great leap forward" in China's housing policy reform and laid the foundations for the monetization of housing allocation and the transfer of property rights.

(2) The complete transition to the provision of market based housing (from 1998 to today)

In July 1998, China's housing policy reform entered a new era, characterized by monetization of housing allocation and the establishment of multiple housing supply systems as well as the standardization of

[2] With the sales of these houses, the government did not aim to make a profit.

housing transaction market. From 2000 to 2004, average annual investment in real estate reached 745.8 billion RMB and achieved an annual growth rate of 24.9%. This investment was 15.7% of total investment in fixed asset and was 6.9% of GDP. Starting from this period onwards, the housing industry has become a new engine of growth for the economy. Nowadays, total housing area has reached 44 billion m^2 in cities and towns of which urban residents occupy 16 billion m^2. In 2004, newly completed construction projects of urban housing reached 0.55 billion m^2. Urban residents' living area increased from 18.7 m^2 in 1998 to 24.97 m^2 in 2004. Further, the whole-unit occupancy rate exceeded 82.44% and ownership rate was 80.77% in cities and towns.

2. Summary: the evolution of China's housing policy

(1) The transition from welfare housing to partial welfare housing.

Before the reform, housing allocation as a welfare benefit could not satisfy the needs of ordinary citizens. As reform took place, welfare housing began to target medium- and low-income families. Those families that could afford housing had to get their houses through the market.

(2) The transition from non-commercialized to market based housing.

Before the reform, houses were non-tradable goods on the market; thus, they could not be regarded as commercial goods. After the reform, houses were traded on the market and many service agencies came into existence.

(3) The transition from unitary to multiple and comprehensive policy measures.

Before the reform, public finance was the only policy measure in the realm of housing but after reform, with the appearance of real estate finance, the Housing Provident Fund, and consumer credit, multiple policy measures have been introduced in the housing sector to allow for financing of housing purposes.

II. China housing policy in the current stage

After twenty years of reform, China now has more or less a complete set of policy systems covering land management, investment, circulation, transaction and property management, public finance, taxation, planning, construction, sales, etc.

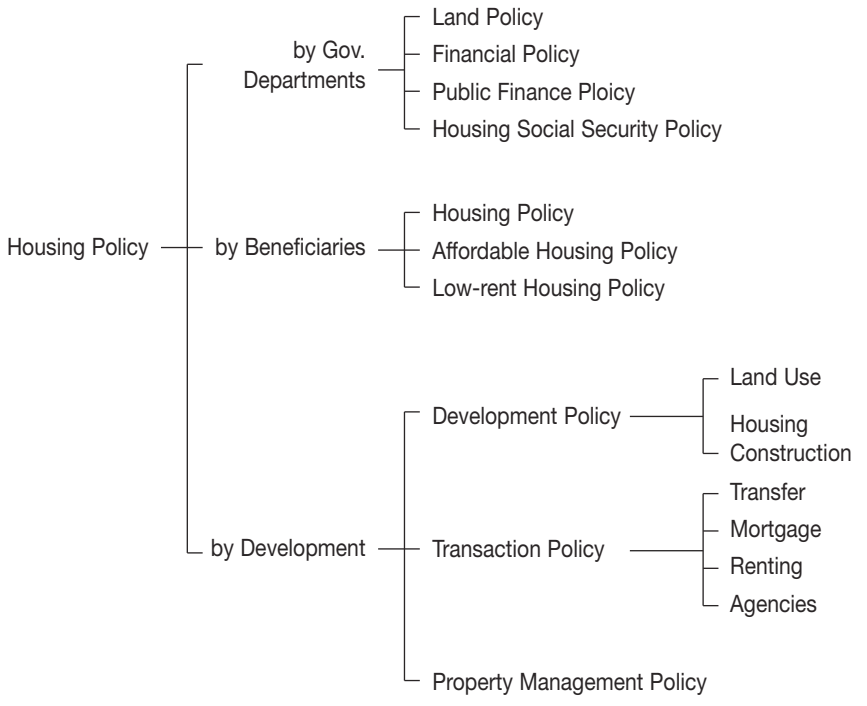
The parties involved include the government, enterprises, service agencies, consumers and socially vulnerable groups. Therefore, it could be said with no exaggeration that housing policy is one of the most basic yet complex policies that concerns the livelihood of everyone. The policy can be divided into the following broad categories (see figure 3):

In the following, the paper will discuss land policy, financial, public finance and social security policies with regard to housing in more detail.

1. Land policy

Land in China falls into two categories: state-owned and rural collectivity owned. Land in cities belongs to the state while land in the rural area, which is primarily used for farm production and rural housing construction, belongs to peasant collectives. Our focus here is state-owned urban land for which the government exerts three levels of administration: the central government is in charge of setting up nationwide laws and policies; provincial level governments are in charge of monitoring and evaluating the implementation of these laws and polices by local level governments; local governments execute these laws and manage the land by carrying out planning, development, land reserve, land sale and land registration. The state has the right of ownership of the land. Thus it can sell the land-use right based on certain conditions. Some conditions include: according to land usage, the terms of land use are 40, 50 and 70 years; plot ratio and density must be determined by government's planning; land

Figure 3 Flow Chart Displaying Parties Involved in Housing Policy



for business purposes must be obtained through bidding, listing or auction. Moreover, China implemented a land bank system: being the sole land supplier, the Government adjusts land supply in accordance with planning and market demand. The income received from land sale is used for infrastructure construction. China's land band system now operates on a fair, open and impartial basis. Land supply policy is used as an important tool of macroeconomic control by varying the amount of land available on the market, establishing auditing systems for land of construction purpose and adjusting land tax and establishing monitoring and forecasting measures.

2. Financial policy

Currently, two financial policies operate in China: the Housing Provident Fund and housing credit policy. Since the 1990s, the Housing Provident Fund system has been in operation. This system can be seen as a compulsory saving system operated by the government in order to protect the interest of salaried worker and as a society-wide social security. Employers and employees each put the same ratio of their share of commitment to the bank for the employee to be saved as Housing Provident Fund so as to help employees' future house purchases or provide a stipulated amount of loan at a low interest rate. To date, there have been about 61.385 million employees who have participated in this scheme, covering about 58.4% of the salaried workers population. In most cities, the amount of reserve that has to be deposited in the bank has increased from 5% to 10% of an employee's salary. By 2004, the total Housing Provident Fund had reached 740 billion RMB, and the amount in account after loans have been paid out from this reserve is still 250.68 billion RMB. More than 30 million employees are currently benefiting from this scheme in their house purchases.

Housing credit refers to bank loans to potential house buyers who provide the house in question as a mortgage. At the moment, four state-owned commercial banks provide financial services[3] . According to national policy, the down payment is 30% and borrowers can take out a loan for the remaining 70%. In March 2005, in a move to avoid financial risks arising from real estate activity, the Central Bank of China increased the loan rate from the previous 5.31% to 5.51%. Housing credit has grown by leaps and bounds in China - at an annual growth rate of 100%. By 2003, the total credit amount had reached 11.78 billion RMB which was 62 times of the amount in 1997. However, this figure is only 8.9% of the total loans given to the real estate sector (which includes loan to housing developers, etc.). This demonstrates that there is still great potential for consumer credit service in China.

3. Tax policy

Tax from real estate has become an important source of public finance for the government. There are a variety of taxes, including business operation tax, city construction tax, income tax, land value-added tax, stamp duty, contract fee, etc. Taxation has also become an important tool for macroeconomic control. The 1998 Asian Financial Crisis hit the newly germinated Chinese real estate market. To encourage the development of the real estate sector, tax policies were adjusted. Favorable tax polices, in business operation tax, land value-added tax, personal income tax, contract tax and stamp duty, were offered. In 2005, the real estate industry was overheated. The government again used tax as a tool for macroeconomic control: any transaction for ordinary housing within two years of purchase no longer enjoys favorable business operation tax; luxurious houses no longer enjoy partial favorable tax if a transaction takes place after two years of purchase, while ordinary houses enjoy full preferential terms if a transaction takes place after two years. This measure is aimed at preventing the overheating of the economy caused by speculative investment. Real estate taxes take place in the realm of real estate development and transaction in China. However, there is still no property tax yet.

4. Housing social security policy

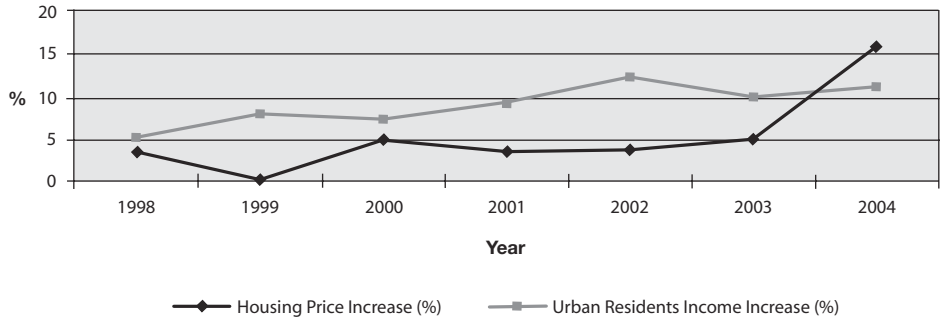
Experience from many countries has shown that the market could not solve society's housing problem which is both of economic and social concern. Besides the further improvement of the market mechanisms, the government has the responsibility of solving housing problems for low-income families. Therefore housing policy is an important component of social policy. The government provides affordable housing (such housing is known as Economical Housing) to those families that have difficulty in buying houses, and low-rent houses for urban residents with very low income. Economical/affordable housing is constructed in three ways: construction by local government; construction by real estate developers; and construction by the employees' Work Unit (which is usually a state-owned factory or company). The land for construction is provided by the government free of charge and government provides preferential administration fees and loans. Only families eligible for such houses are entitled to buy (eg in Bejing the family income may not exceed RMB 60,000 per year). The prices, which are strictly controlled by the pricing department, are not allowed to have a profit margin of more than 3%. Also, the area for such houses hovers around 60-80 m^2. Consequently, the price of such houses is much cheaper than that of commodity housing. Cheap-rent houses target the widowed, the old, the sick, the disabled and the very poor. The Government hands out rent subsidies or charges tenants a low rent. The area of such houses normally does not exceed 60% of the local average living area.

[3] These are Bank of China, Construction Bank of China , Agriculture Bank of China and Commercial Bank of China

III. Problems of housing policy

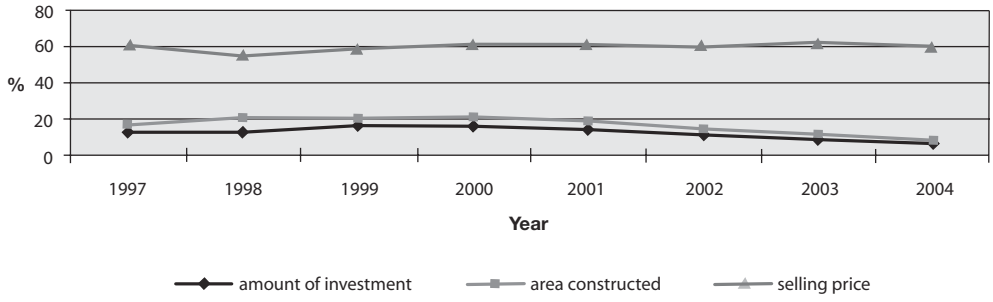
1. The ambiguity of housing policy principles. In most societies, housing distribution falls into two general categories: commodity houses for relatively high-income families and housing provided by government as a measure of social security for low-income families. These two spheres usually do not overlap. Although these two spheres exist in China, there is a certain policy ambiguity and confusion within each sphere. The government has established commodity housing as a mainstay for economic development. However, the government has underestimated the overheating of the economy due to the rapid development of the housing sector. This is also attributable to the government's lack of sufficient knowledge of cycles in the real estate industry. Therefore many policy measures introduced lack pertinence. A series of economic control measures, covering land supply, monetary policy, tax policy etc were introduced to curb overheating. Due to a mistaken judgment of the market, these measures had reverse effects than were originally expected: they caused panic among buyers and drove up demand. Prices for commodity housing rose by 10.1% in the first half of 2005. High house prices forced ordinary citizens to demand affordable housing from the government. (In some cities e.g. Shanghai, Beijing and Guangzhou the price-earnings (P/E) ratio has reached over 12.) See Figure 4 for a graphic presentation of income and house price. On the one hand, the government has a monopoly over land supply, thus the monopoly right to reap profits on the land. On the other hand, the government put the blame of overheating on real estate developers. Apparently, the government is shirking off responsibility. The number of affordable housing set up by the government is decreasing (See Figure 5). From Jan. to May in 2005, the total investment in housing construction reached 310.4 billion RMB, an increase of 21.8%; but the investment in affordable housing was only 14.5 billion RMB, a decrease of 16.7%. The government lacks long-term planning and farsightedness. The rules and procedures for affordable housing construction have yet to be standardized. There are also flaws in the process of construction of affordable housing. Some

Figure 4: A Comparison of Housing Price Increase and Income Increase (%)



Sources: *China Statistical Yearbook 2004*

Figure 5: Affordable Housing as a % of Total Housing Investment



Sources: *China Statistical Yearbook 2004*

local governments contract out affordable housing construction to real estate developers, thus withdrawing its monitoring ability. In addition, developers built houses whose living areas exceed the 60-80 m^2 principle. As a result, many people can no longer afford "affordable housing" of such a big area while the relatively well-off can buy them with great ease. This results not only in abnormality in the housing market but also intensifies social conflicts.

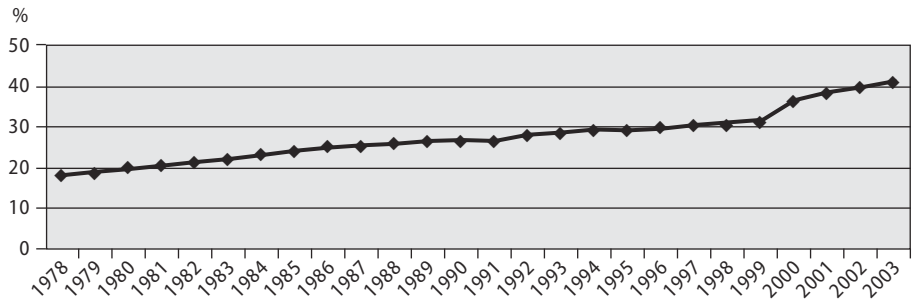
2. Administrative intervention in housing policy. China is in a social and economic transition stage. In a centralized political system like China's, government intervention is inevitable. Problems in China's real estate market include excessive investment, house price hikes, market disorder etc. However, the government still uses administrative control, such as controlling a house's area and price as its main tool. In many instances, a local government's achievement is measured by its ability to control and adjust house prices. Unfortunately, a misjudged policy can cause great disturbance to the market. For example, at the outset of the 2005 real estate market adjustment, due to the government's tight supply of land, there was imbalance between supply and demand and caused price hikes in real estate. Only after the government increased land supply, a short-term equilibrium was restored.

3. Inconsistent policy goals. Inconsistent goals are manifested by the different objectives of housing development held by the central and local governments. From the viewpoint of the central government, the development of the real estate sector should go hand in hand with the national economic development in order to achieve stable growth and harmonious social development and avoid any economic fluctuation. But, from the perspective of local governments, they wish to see a booming real estate market not only because they can reap profits from land sale but also a booming scene looks good for their political record. Therefore, the current overheating of real estate sector can, to some extent, be attributed to local governments. Due to different objectives, central government's measures are often undermined by the local governments. The central government has realized this issue and has taken several measures which include taking back land sale approval power, and monitoring the construction of affordable housing. In the process of economic development, the conflict of interest between central and local governments has intensified. Another manifestation of different objectives has come from different departments within the government. The land management department, construction department, taxation department and central bank have different views and opinions about real estate market developments. Therefore, different and even conflicting policy measures are inevitable. For example, the land management department claimed that housing price hikes had nothing to do with land prices; banks raised the interest rate for housing loans to protect themselves from financial risks while ignoring the increased financial burden of house buyers. The partition of administration zones caused chaos in housing development.

IV. The challenges of China's housing policy

1. The challenges of globalization. Our world has entered into an age of globalization and the flow of international capital has brought changes to the industrial structure in every country. In this process, China is likely to become the world's manufacturing centre. The rapid economic development in China has spurred the rapid growth of urbanization (See Figure 6). The urbanization ratio has increased from 17.9% in 1978 to 41.7% in 2004. Within 26 years, the urban population increased by 366 million. It is forecast that in 2020, the urbanization ratio will reach 60% ie a rise of a further 360 million. This development makes urban housing a challenging task. A great influx of additional rural workers will move into the cities and they will settle down in cities and bring their family members to the cities. Currently, there are 660 cities in China with a total population of 510 million. The rural population is currently at 780 million. Even if the current urbanization rate remains stable, there will be 20 million rural residents moving into cities every year. To accommodate these people, there shall be an increase of 500 million m^2 of housing

Figure 6: Urbanization Process Since 1978



Sources: *China Statistical Yearbook 2004*

every year. Although this represents a great potential for the development of the housing sector it also represents a challenge for policymakers as how to effectively satisfy market demands and ensure the stable growth of housing sector and realize the goal of urbanization in a context of scare resources.

2. The challenges of pluralistic social interests As economic reforms deepen in China, more and more people begin to share the fruits of economic growth. However, here is no such case as equality of opportunities. Many people get rich while many others remain poor. As a result, many interest groups began to emerge. These groups stratify the society. According to the study of Chinese sociologists, there are ten social classes in China, with the entrepreneurs and managerial class at the top and workers and jobless people at the bottom. Furthermore, China's Gini Coefficient has reached 0.45. China is entering into a stage of high social development cost. The main social cost is the maintenance of society's harmonious and stable development. Housing policy plays a pivotal role in maintaining healthy social development. The most poignant issue in housing policy is high housing prices and low income for the vast majority of the people. Most houses are occupied by the wealthy class while the poor - the jobless, low-income group and rural migrant workers - could not even afford a house with their lifelong savings. These groups are being marginalized in the society. There are still no slums in China yet thanks to the possibility and opportunity that rural migrant workers can return to their farmland in the rural area if they cannot settle down in cities. But this does not mean that their need and desire for housing in the cities can and should be neglected. China has 99 million migrant workers. Even if we make their living area 60% of their urban counterparts, there should be 1.43 billion m^2 of housing for them. The government is the only provider for such housing. Therefore it is a challenge to ensure social justice and maintain social stability.

3. The challenges from the natural endowment of land If we take into account the current urbanization rate, it will result in a growth of 20 million new dwellings in cities each year. In addition, assuming that the average construction area needed for each person is 100 m^2, 2,000 km^2 of construction land is needed every year. To put it in a more graphic description, every year 3 cities of the size of Beijing have to be created. The above estimates are very conservative. If we take into consideration the increase of living standards, the construction area needed will be much larger. Thus China's naturally endowed resources could hardly support such a demanding land need. This explains why China has the most stringent land protection law in the world.[4] But the current average area of land used for construction per person is at 130 m^2 (far higher than in developed the countries where this ratio stands at 83.3 m^2) . The area of economic development zones set up by local governments has reached 37,500km^2. This area, which has exceeded the current 31,500km^2 of land for cities and town development, has not been utilized efficiently. In 2004, the total area of development zones repealed by the government was 22,100 km^2. In the same vein, land that has been bought but not developed by developers who are waiting for an appreciation in land value which is about 47,000 km^2. Extensive use of land is not the way for sustainable development. The rural population is about 1.5 times of city population, but rural residential land occupies 6 times that of urban residential land. For policymakers, how to use and manage land efficiently in accordance with the reality of housing development is a great challenge.

V. Suggestion for China's Housing Development

1. The Principle of Housing Policy: Efficiency, Equity and Sociality. The policy that government adopts for the real estate market should sufficiently utilize the effective deployment of housing resources through the market mechanism, including land supply, housing investment, construction, circulation and consumption etc. The standardization of ownership modalities, protection of right-to-use right, housing financing and housing price can greatly improve the land-use efficiency of real estate.

Apart from the efficiency of housing policies, the principle of equity has to be maintained. Under a market economy, the allocation of housing is realized through exchanges and is closely related to personal income. Therefore while the rich can afford big and comfortable houses the poor could rent only small and uncomfortable ones, or even become homeless. In view of the need for social stability and social welfare, the government should find the targeted population and assist them in solving their housing difficulties.

To achieve harmonious social development, every social class should harmoniously coexist. The strong can improve their living standards through their own work while the weak reach the same goal with certain social assistance. Experiences from other countries have shown that the housing problem for low-income groups is both an economic and social problem, thus high on the agenda of economic and social policies. The housing problem for low-income families cannot be solved by "the invisible hand" alone and social security policies must be formulated to solve it.

2. The objectives of housing policy The basic goals of China's housing policy are: satisfying market demands, increasing the pace of construction, and increasing the quality and standard of living. In the near future, the following goals should be fulfilled:

(1) Establishment of moderate government intervention mechanisms. In almost any country, intervention in housing sector is aimed at realising two objectives: the first is to regulate the allocation of housing resources and correct market failures and ensure equilibrium between supply and demand; the second is to redistribute social resources for the sake of social justice by allocating homes to low-income groups.

[4] China has only 0.106 hectare of arable land per capita which is 43 % of the world's average.

(2) The promotion of pluralistic housing ownership, creating the parallel existence of a buying and selling and leasing market. The Chinese ownership rate was 80.77% in 2004. This figure is higher than in many developed countries, thus evidencing China's achievement in housing development. On the downside, this shows a one-side housing consumption structure: although the owner-occupied housing market has been fairly developed, the rental housing market still lags behind. This structure has something to do with traditional Chinese concept of owning one's own house and also has something to do with the lack of fluidity between cities' economic activity and residence. This structure can cause distortions in the market and is one of the reasons for recent house price hikes. The government should help create a leasing market for houses, especially for the 30-40% medium- and low-income population.

(3) Perfect housing social security system. In almost all countries the provision of housing for the low-income population is a main target of housing policy which is sought to be achieved through housing financing policies and housing allocation measures. China should attempt to provide basic housing for groups that cannot afford housing on their own. For example, the government could step in by providing land at discounted prices.

(4) Housing construction should adapt to economic development. The housing sector is a barometer of the health of the national economy. The booming housing industry has sustained the rapid economic growth. But in recent years, the economy has become too heavily dependent on the housing sector which has become too overheated. Once the housing boom fades, a financial crisis and economic problems may emerge. Therefore one of the most important objectives is to ensure the stable development of housing sector and avoid any disturbing fluctuations in the market.

3. The implementation of housing policies (1) Improving supply systems and the development of economical/affordable housing. The construction of economical/affordable housing seriously lags behind the need for social security provision. The local governments should decide on the number of economical/affordable houses that should be built and the criteria for applying for these houses based on local housing prices and local residents' incomes. In areas where house prices are high, local government should put more efforts into construction of economical homes. Moreover, government should play the principal role in ensuring the implementation of economical housing construction. Funding for construction should come from the income of land sales. The standard of houses built should be lower than average living standard so that high-income group will not have the incentive to buy. The Government's assistance to low-income groups should be done by renting houses at a very low price. But this type of cheap-rent houses cannot be sublet or transferred. Construction of economical and cheap-rent housing should become a part of government's annual work report and budget which should be open to the general public.

(2) Increasing the pace of tax reform ie using tax as a lever to adjust market demand. In view of increasing speculative investments in the housing market, the government should increase the pace of tax reform and increase tax for multiple house owners in the transaction of houses, especially high taxes for transactions within a short period of owning. Using tax policy should seek to avoid speculative investments and protect genuine home buyers.

(3) Minimizing banks' risk in housing finance. The narrow financing channel for real estate in China and the outdated operating system of banks have resulted in a high level of bad loans. The high risk of mortgage loans for the banking sector poses a threat to the national economy. The government should loosen its grip on the control of financing and allow banks to use credit standing and assessment of a project's potential risk as criteria to decide on loan interest rate. The secondary mortgage market should also be developed.

(4) Establishment of credit standing system (in order facilitate risk management and underwriting practices of the banks). The ineffective implementation of many housing policies can be attributed partially to the lack of credit standing system. For example, without a credit standing system, it is very difficult to know if a person is genuinely eligible for government-subsidized economical housing; a bank's risk in giving out loans increases considerably without knowing the history of a person's credit standing.

(5) Improving land management system and sticking to intensive land-use policy. Policy measures during land consolidation, land holding and land circulation are crucial in ensuring an orderly supply of land. In cities where there are rapid house price hikes, the government can control prices by providing more land and controlling the ratio of land that is to be auctioned. At the same time, the government can also limit business activities of a speculative nature that aims to reap profits from the increase in land value.

(6) Standardization of real estate market transactions. A chaotic market condition endangers the healthy development of the real estate market. The government should strictly examine and verify the necessary qualifications of real estate developers and professional service agencies as well as appraisers and remove those carrying out unlawful activities, such as giving out false information, deliberately stocking up houses in the hope of gaining profits from future house price increases. With the help of internet technology, real estate information should be made public online.

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