

Housing in Taiwan: State Intervention in a Market Driven Housing System

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Abstract

This paper traces the development and problems of state intervention and market provision of housing in Taiwan in the context of her socio-economic and demographic changes in the last few decades. Although housing in Taiwan is mainly market driven, the market does not appear to be functioning in a mature manner as one may expect. On the other hand, state intervention, which is being depicted as marginal in housing, has been more proactive and influential. The paper concludes that despite the current housing system in Taiwan which suggests Taiwan to be offering a sharply contrast model from other Asian Tigers in state intervention in housing, the strategies she adopted in the beginning phase of housing development was in fact similar to that employed by other Asian Tigers. Yet, the unique socio-economic and political conditions in Taiwan have driven her away from a state-led trajectory in housing development to a market driven system.

Taiwan offers an interesting case in the housing systems in East Asia. Unlike other Asian Tigers states where the government always plays a dominating role in the housing market, Taiwan is always much more market driven than other East Asian economies such as Hong Kong and Singapore. On a national level, the housing domain is also in sharp contrast with the state's usual high profile presence in other social, economic and political arenas. But this is not to suggest the state has no role to play in housing. Rapid urbanization and the demand for better housing have driven up house price in prime sites of metropolitan areas, particularly Taipei, with adverse consequence in affordability. Housing shortage for lower income groups has always been a problem. The state is also heavily involved in housing for special groups such as servicemen and civil servants. People in Taiwan also

have a strong desire for owner occupation and it is not surprising to find housing policy in Taiwan much skewed towards home ownership. Yet, government policy is always criticized as fragmented. Not only that owner-occupiers gain the most from state subsidies, the distribution of such subsidies is also inequitable across the income spectrum and among different occupational groups.

This paper aims to achieve two objectives. First, it describes systematically the historical development of state intervention on housing and the operation of the housing market in Taiwan in the last three decades. Second, it attempts to highlight the problems in the housing system, particularly the institutional inadequacy in terms of the distribution of housing subsidies for the needy. This paper concludes by putting the Taiwan experience in the context of other similar systems in East Asia and examines why a low level of housing intervention is possible in Taiwan. This paper consists of six sections. It starts with the description of the socio-economic context of housing development, followed by a brief history of state intervention in housing. Sections three and four focus on the operations of the housing market and the problems associated with it. Section five discusses the question of distributive justice with respect to housing subsidies. The conclusion suggests some theoretical implications of the Taiwan model in terms of a better understanding of the East Asian model of housing and welfare.

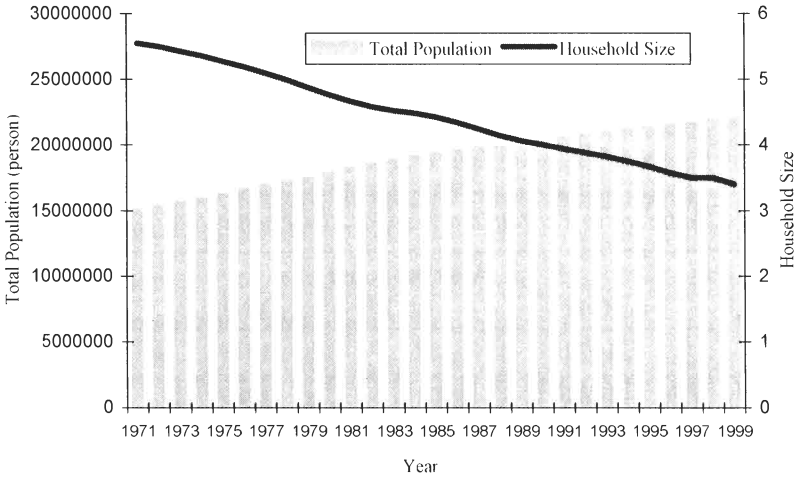
Housing Tenure and the Socio-economic Context

With a population of 22 million and an area of 36,000 km², Taiwan is one of the most densely populated areas in East Asia. The capital city Taipei, which accommodates 3 million inhabitants with a population density of 129 persons per square kilometre, is as congested as other metropolitan centres in the region. Like most Newly Industrialized Countries (NIC), the rate of population growth and rapid urbanization have been staggering. Population in Taiwan doubled from 11 million in 1961 to 22.4 million in 2001 (figure 1). The number of households has trebled in the last three decade (Ministry of the Interior, 2000).

Economic growth in Taiwan in the last three decades was spectacular with the GDP growing at an average of 7.8% in real terms from 1970 to 1999 and GDP per capita increased 5.8 times in real terms from NT\$71,473 in 1971 to NT\$415,320 in 1999 (at 1996 constant price) (figure 2). The economy was also vibrant enough in containing both unemployment and inflation. Unemployment in the last two decades was maintained at 1.2% in 1980 to 3% in 2000. Likewise, inflation averaged 2% from 1981 to 2000 (Council for Economic Planning and Development, 2001).

Figure 1

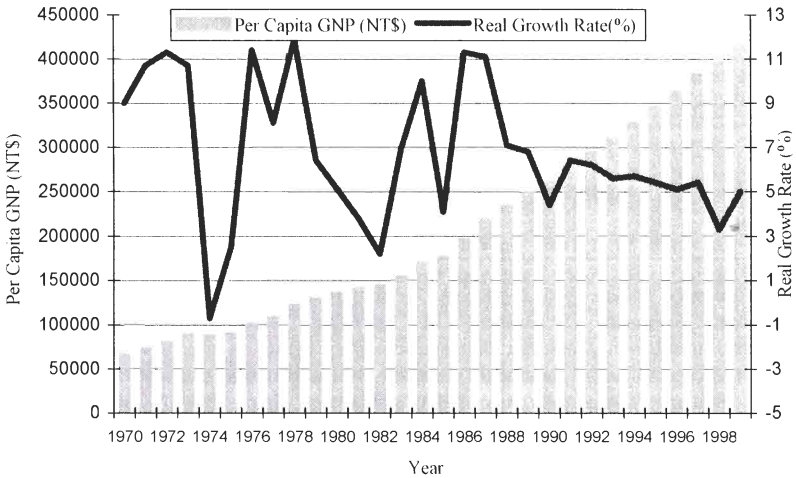
Population and Household Size 1971–1999



Source: Council for Economic Planning and Development (2000)

Figure 2

Economic Growth



Sources: Council for Economic Planning and Development, ROC (2000) Table 3–4

In terms of housing provision, Taiwan is relatively advanced. For instance, there was a net surplus of over 1.2 million dwellings in 2000 (Population Census, 2000) and space consumption reached 39m² per person in 2000. In terms of living space, Taiwan surpasses many advanced countries, for instance, UK, Singapore and Japan (Hsueh and Tsai, 1991, Population Census, 2000).

Table 3

Housing Conditions in Taiwan in a Comparative Perspective

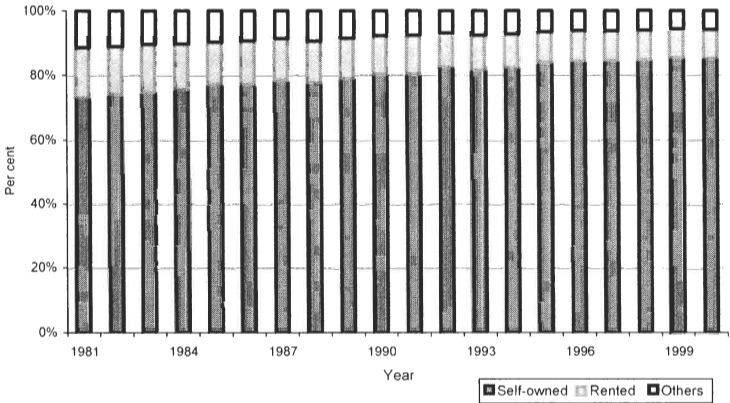
	Year	Area per house (m ²)	Year	Person per house
Taiwan	1979	82	1979	4.71
	1989	101	1989	4.07
	1995	113.9	1995	4.2
	2000	132.2	2000	3.4
UK	–	–	1985	3
	1988	95	1988	3.12
USA	–	–	1983	2.82
	1987	153	1987	2.12
	–	–	2000	2.59
Japan	1978	80	1978	3.48
	1988	90	1988	3.2
	1998	92.4	2000	2.67
Singapore	1975	48	1975	5.5
	1985	73	1985	4.4
	–	–	2000	4.2

Source: Figures on Taiwan 1995, 2000 from Directorate-General of Budget; figure on Singapore 2000 from Singapore Department of Statistics (2001). Singapore Population, <http://www.singstat.gov.sg/keystats/c2000/handbook.pdf>; figure on Japan 1998 from Japan Statistics Bureau and Statistics Centre. Housing and Land Survey 1998, <http://www.stat.go.jp/english/data/jyutaku/1520300.htm#p18>; figure on USA 2000 from Online American Fact Finder. <http://factfinder.census.gov/servlet/BasicFactsServlet>; figures for Taiwan 1995, 2000 from Accounting and Statistics (2000a); rest of the figures from Hsueh and Tsai, 1991 table 2

Taiwan is a nation of homeowners. In 1981, nearly three quarters (73%) of Taiwanese owned their home. It rose to 82% in 2000. Households who had to rent, either from a public or a private landlord, accounted for a mere 15% in 1981 and dropped to 10% in 2000 (figure 3). Captured in a common saying that “when one possesses land one possesses wealth ” (有土斯有財), it has been argued that real estate ownership has long been a deep rooted belief of wealth accumulation and a predisposition of a decent living among Chinese (Chang, 1991b). Because of this, owner occupation becomes the “natural” objective in housing policy. Contrary to many western industrial countries, tenure has never been prominent in the political and policy agenda.

Figure 3

Tenure in Taiwan 1981–2000



Source: Directorate-General of Budget, Accounting and Statistics, Social Indicators of Taiwan Area (various years)

State Intervention in Housing

Direct state provision of housing in Taiwan started as early as in 1949 when the Nationalist (KMT) government retreated from Mainland China to Taiwan and brought with it many government officials, veterans and their dependents. Housing shortage became acute as only a small number of dwellings were built for relief and reconstruction (Chen Liang-chun, 1991). An orchestrated effort on public housing development began when the Planning Committee for Public Housing was established in the Provincial Government of Taiwan in 1959. Yet, progress of housing construction was slow and only 125,534 dwellings were constructed from 1959 to 1975, the

majority of which were small and of low quality (Mi, 1988).

Public housing development began to sprout when a new Public Housing Ordinance was enacted in 1975 and public housing construction was incorporated into the six-year economic development plan in the year that followed. Yet housing program missed its target by half (Chen Liang-chun, 1991). Owing to difficulties in land acquisition, public housing developed then was either unpopular (because of their location in cheaper but remote sites) or expansive (because of high land price in prime areas). Over-supply of public housing began to happen (Mi, 1988). In order to speed up public housing development and to boost sale, the Public Housing Ordinance was amended in 1985 to clear obstacles in land acquisition and to attract more private sector investment. However, subsequent housing market collapsed in the mid 1990s, seriously affecting the sale of public housing. Direct provision of public housing was called to a halt in 2000 as the central government decided to replace direct provision with mortgage interest subsidy.

Table 4

Housing Constructions in Taiwan 1982–2001

	Total	Private	Public	% Private	% Public
1982–89	836867	807404	29463	96.5%	3.5%
1990	67600	53417	14183	79.0%	21.0%
1991	72016	68410	3606	95.0%	5.0%
1992	102399	94190	8209	92.0%	8.0%
1993	143649	140655	2994	97.9%	2.1%
1994	197678	191503	6175	96.9%	3.1%
1995	194762	184037	10725	94.5%	5.5%
1996	152205	143245	8960	94.1%	5.9%
1997	113142	105597	7545	93.3%	6.7%
1998	97849	90195	7654	92.2%	7.8%
1999	85566	85233	333	99.6%	0.4%
2000	62273	62273	0	100%	0%
Total	212600	2026159	99847	95.3%	4.7%

Note: Housing units completed.

Source: Construction and Planning Administration (various years)

Production of public housing is minimal in Taiwan, with an annual production of less than 5% recorded from 1982 to 2000 (table 4). However, despite the “planned” nature of public sector housing, its output exhibits an unstable pattern – production contracted by 50% in 1983 but surged by 17 times in 1990 over the preceding year. The lack of planning, poor coordination and various administrative obstacles such as land acquisition, state budget constraint, were to account for such fluctuations (Chen Li-Chun, 1991).

As housing policy in Taiwan heavily skews towards home ownership, it is not surprising to find that the overwhelming majority of public housing built in Taiwan is for sale. It is estimated that over half a million state-produced dwellings were sold in the last 50 years (Construction and Planning Administration, various years) but the number of public rental housing (including those provided by the Housing as well as Social Welfare Department) amounts for less than 5,000 in 2000. Contribution of the publicly built dwellings to the total housing stock is insignificant. Public housing constituted only 3.2% of all owner occupied and 4% of all rental dwellings in 2000 (Census 2000).

Yet, state involvement in housing would be seriously under-reported if only direct provision of public housing by municipal or county housing departments is counted. Other government departments have in fact contributed an even larger share of public sector housing. For instance, municipal social bureaus build and manage dwelling units for welfare recipients and the Labour Bureau develops dwelling units for workers in designated trades. By far, the most important contributor in public housing that is often missing in official statistics is the Ministry of Defence, building and subsidizing housing for families of the armed forces (Chen Liang-chun, 1991). Taken together, such additional stock developed by other departments was estimated to be 385,000 housing units in 1949–89 (which included public subsidy for purchase or self-built units) in the public sector and public sector housing thus constituted 7.4% of the households in 1989 and 8.5% of new construction since 1949 (Chen Liang-Chun, 1991). Amongst these housing developments in the public sector, 135,000 units belong to the military establishment, representing more than one third of public sector production.

Besides direct housing provision, financial subsidy is another intervention strategy that has been gathering momentum in the last few years. Mortgage interest subsidies for home purchase started in 1990 as an alternative to direct provision (a similar supplementary scheme – Housing Subsidies for Young People – was introduced in 2001), replacing direct provision in 2000. There are also other mortgage subsidy schemes for designated groups of households. For instance, the Labour Commission runs a Housing for Workers Scheme and the Human Resources Bureau of the Executive Yuan maintains a loan scheme for employees in public

organizations. Details of the various direct provision and loan schemes are listed in the appendix under two broad categories: housing for low income groups and housing for designated groups.

Two other forms of state intervention in housing, involving neither direct provision nor subsidy, are also in place. The first is the provision of additional credit for first time buyers beyond the ceiling they can obtain from commercial banks. Such loans are subject to funds availability and market interest rates are charged. The second form is tax advantages for homeowners that include the deduction of mortgage interest payment from tax liability, exemption from tax on imputed rent, as well as preferential treatment on inheritance tax on residential properties.

The Housing Market

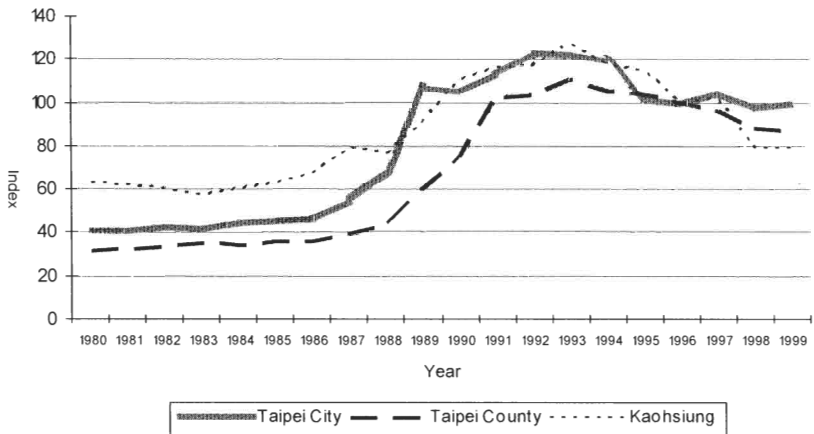
As the level of housing intervention is relatively low in Taiwan, private housing developers enjoy more freedom and face less competition from the state sector than their counterparts in other Asian Tiger states. For instance, unlike Hong Kong, where state monopolizes land supply, and also in Singapore, where the powerful Land Acquisition Act enables the state to control land supply, land in Taiwan is mostly privately owned. Contrary to private housing development in South Korea, private developers in Taiwan enjoy supplementary credits from the state for bailing them during a market slump. For instance, there were a series of administrative directives between 1978 and 1986 in lifting credit control to the construction industry as well as offering addition credit for house building (Huang and Chang, 1993). In addition, while large public housing sectors like Hong Kong (49%) and Singapore (90%) create direct competition to private housing development, Taiwan's meager 5% public housing stock imposes no threat to the private sector. The state is always prepared to relinquish even this level of involvement, as witnessed by the moratorium of public housing construction in 2000, in order to boost the stagnant housing market.

Chang (1991b) summarizes the development of the private housing market in Taiwan in five stages. The first stage is the *period of inactivity*, referring usually to the pre-1961 years when self-built activities for low-rise simple housing were the norm. The second stage (1961–1971) is the *embryonic period* when housing development began to institutionalize with the setting up of bigger housing development companies and low-rise condominium construction. The third stage (1971–1981) is the *period of unstable prosperity*. On the one hand, a booming housing market with rapidly increasing house prices was fuelled by continuous economic growth, global inflation and the oil crisis. On the other, market busts were driven by political crisis and the economic turmoil that followed.

The fourth stage is the market “dark age” when a market slump was triggered by the 1980 Census that reported the existence of 0.45 million vacant properties, causing great alarm in housing investment and speculations. However, this period was also marked with advancements in the market framework when a national network of franchised real estate agents was established in 1985. The government also allowed the construction industry, for the first time, to secure credit facilities from private banks. The year 1987 marks the beginning of the fifth stage – the *period of hyper-price inflation* with house prices doubled over two years from 1987 to 1989 in Taipei (price for pre-sale housing increased threefold) (Taiwan Real Estate Research Center, 2001). Price only began to stabilize after mid 1990s (figure 4).

Figure 4

House Price in Metropolitan Areas 1980–1999



Source: Taiwan Real Estate Research Centre (2001)

Escalating house price has imposed a higher hurdle for first time homebuyers. For instance, a manufacturing worker who earned the average salary would have to spend 23 years of the salary to buy an average sized pre-sale housing unit in 1987. At the peak of the boom in 1995, the same worker had to spend 32 years of annual salary on the same dwelling. Although the situation has improved when price came down in recent years, yet an equivalence of 29 years' earning is still recorded. Empirical data from social surveys also indicate a rising bill on housing outgoings when house price

increases over the years. Households in Taiwan on average spent NT\$1,573 a month on mortgage repayment in 1972 but in 1989 it rose to NT\$10,521 and further increased to NT\$11817 in 1999 (Table 4).

Despite the increase of housing outgoings in absolute terms, yet relative to household income, they have fallen in recent years. Households in 1972 had to devote one third (33%) of their income on mortgage repayment. Such proportion increased to 44% in 1975 but since then the situation had gradually improved. Towards the end of the 1980s when house price experienced a big leap within a few years' time, the impact on owner-occupiers was not apparent. Mortgage repayment as a proportion of income only rose from 24% in 1986 to 27% in 1989. On the contrary, rent as a proportion of income remained stable throughout the 1980s (12% to 15%) (Table 4). Unfortunately, official statistics in Taiwan have since ceased releasing disaggregate data of housing outgoings after 1989 and used instead inputted rent payment for owner-occupiers. This makes the assessment of mortgage burden comparatively more difficult for owner-occupiers in the 1990s. (Table 4).

There are several reasons why the increase in house price did not impose a bigger burden on housing outgoings of owner-occupiers. First, the increase in house price has an immediate negative effect only on first-time buyers. Current homeowners who bought at a much cheaper price were largely unaffected. Income rise and inflation would instead reduce the relative burden of mortgage repayment of the latter group. Second, homebuyers in Taiwan borrow relatively less and pay a rather high percentage of down payments, averaging around 46% from 1972 to 1989 (Lim and Chang, 1992). It thus helps even-out the impact of house price rise on mortgage repayment. Whilst the ability to afford down payment could be attributed to savings or help from close relatives, the existence of an informal financial sector may act as an important source of finance (Chang, 1991b). Therefore, up-graders are able to finance a higher proportion of down payment out of the windfall profit they made in the previous booms.

There is a marginal deterioration of housing affordability of owner-occupiers in recent years, largely the result of a higher level of space consumption. In general, households in Taiwan are consuming bigger and better housing. Average housing space in 1981 was 89m² per household and this had increased to 132 m² in 2000 (Directorate-General of Budget, Accounting and Statistics, 2000a). Thus, even if house prices and the quality of housing remain stable, the consumption of an additional 48% of space would cost considerably more for the households.

Table 4

Housing Outgoings and Affordability in Taiwan

Year	NT\$ per month			As a proportion of income (%)	
	Disposable Income	Mortgage Repayment	Rent	Mortgage	Rent
1979	15701	3369	2180	21.5	13.9
1980	19426	5081	2470	26.2	12.7
1981	22203	5051	2920	22.8	13.2
1982	22938	4615	3460	20.1	15.1
1983	24657	5304	3440	21.5	14.0
1984	26185	6072	3500	23.0	13.4
1985	26708	6222	3600	23.3	13.5
1986	28477	6892	3760	24.2	13.2
1987	30541	8151	3810	26.7	12.5
1988	34207	9174	4040	26.8	11.8
1989	38750	10521	4690	27.2	12.1
1990	—	6351		17	
1991	—	7437		17.8	
1992	—	8349		18.3	
1993	—	9281		18.2	
1994	—	10138		17.9	
1995	—	10642		16.7	
1996	—	11212		16.9	
1997	—	11491		16.7	
1998	—	11770		16.7	
1999	—	11817		16.6	

Note: Figures before 1990 refer to actual outgoings and figures after 1990 refer to actual and inputted rent plus repairs.

Source: Figures for 1979–1989 from Chang (1991a); figures for 1990–1998 from Urban and Housing Development Administration (2000)

Problems in the Housing Market

Notwithstanding the market being the major arena of housing consumption, infrastructure in the housing market is still considered quite immature. Three issues are particularly problematic: low degree of institutionalization in the housing market, the presale system that easily triggers speculations and also the inadequacy in the housing finance system.

Horizontal equity is also violated as existing policy allows differential subsidies between owners and renters in the public housing sector. A household who chooses to purchase a for-sale public housing unit is able to acquire freehold of the property and enjoys the full benefits of the subsidy. Profit generated from asset appreciation can be retained upon resale and the household would be eligible for a second time to purchase public housing after five years. On the contrary, if the households opt for public rental housing, the rental right is not guaranteed. In areas of high housing demand (e.g. Taipei), rental contracts are only renewed every two years. Also, standards of housing construction in Taiwan vary tremendously while complaints on the quality of construction are common (Chang, 1991b). Incomplete institutionalization of the system and fragmented market information also hamper market efficiency and set hurdles in rectifying market anomalies. For instance, the use of housing intermediaries as an agent of circulation is still not a norm in Taiwan. Many housing transactions are still done in an informal or semi-formal manner. Such practice is prone to disputes and hence weakens market transparency. Likewise, registration of transaction is not a statutory requirement and thus information on the final transaction price of presale housing is often kept secret. Information on house price is thus fragmented and the asymmetry of information provision seems to favor big market players (Chang, 1999). Although initiatives in fostering a better planned and integrated information system on housing have been raised (Chang, 1999), such effort has to be strengthened in order to counteract institutional barriers generated by competing interests.

Second, notwithstanding the fact that housing is already in over-supply, the pre-sale system, a feature of the housing market characterized by chronic problems of under-supply, is still popular in Taiwan. The pre-sale system functions like a double-bladed sword in the housing system. On the one hand, it reduces the hurdle of new entry of suppliers and thus enhances competition. Small builders are able to acquire cheaper development capital from pre-sale receipts and compete with bigger, well-financed developers. Yet, the presence of a large number of small builders also risks the disruption of the market order. Experience elsewhere shows that when small speculative builders become the dominant players in housing development, large fluctuations in housing supply might result (Ball et al, 1988). Limited by the capital such small builders possess, they tend to over-invest in market booms in order to

minimize their financial risk. At the same time, they are less resistant to market slumps and the resulting bankruptcy would push down house price further. This matches empirical observations in house price movements in Taiwan. In addition, pre-sale housing also associates with complaints from homebuyers on poor construction quality (Li, 1998). An under-regulated market, for instance, makes faulty contractual obligations.

On the other hand, when the initial capital requirement is relatively low, a pre-sale system would easily fuel speculation. It is estimated that the majority of homebuyers in the housing boom in early 1990s were speculators seeking for quick profit (Li, 1998). Acute demand for speculated properties pushed up house prices in an already over-heated market and disrupted to a great degree its healthy functioning. In addition, the pre-sale system is also prone to tax evasion and other illegal activities (Mi, 1988).

Thirdly, housing finance in Taiwan also needs substantial enhancement. The degree of institutionalization in housing finance is relatively low and black market financiers still play a significant supplementary role in the provision of mortgage funds (Chang, 1991b). It is estimated that in 1989 homebuyers on an average borrowed 51% of the value of the property from the formal financial sector with an average repayment period of 15 years (Lin and Chang, 1992). Likewise, contribution from underground finance to the construction industry was also estimated to be in the region of 50% in the mid 1980s (Chung Hsing University (1987). Although the liberalization of the financial market, which allows for new commercial banks to be set up, has reduced substantially the role of the black market, its influence in housing finance has not been completely driven out. Also, the relatively short mortgage repayment period indicates a very conservative attitude of the financiers and thus imposes additional liquidity problem for first-time buyers. Further liberalization of the housing finance market as well as increased diversification of financial products are called for in promoting a more efficient housing finance market (Chang, 1992).

An inadequate market mechanism and asymmetric provision of market information have created a seemingly paradoxical phenomenon. Despite the fact that housing in Taiwan is over-supplied, house prices continued to surge for a long period. This is contrary with theoretical prediction that an over-supply of housing would suppress house price so as to stimulate demand to clear the over-supplied stock. Yet from mid 1980s to the late 1990s, a comparatively high level of vacancy was witnessed (in the range of 15% to 19%) (Taiwan Real Estate Research Centre, 2001), but house price still increased at an annual average of 1.2% in the same period. Hua (2000) suggests that it is the high rate of owner occupation that attributed to such economically irrational behaviors. He examines the relation between house price, vacancy rate and the rate of owner occupation and argues that the rate of owner occupation is no longer an outcome of market choice but "an

important factor in shaping market decision” (Hua, 2000, p49). Despite the prediction of an inverse relationship between vacancy rate and house price, “an over-zealous consumption preference towards owner occupation has, to a certain extent, deviates from the norms of economic dispositions” (Hua, 2000: 49). Hence, an overwhelming desire for owner occupation, fuelled by cultural predisposition, structural defects in the rental market as well as housing policy towards owner occupation, has displaced tenure choice beyond economic rationality. Such force is strong enough in the late 1980s and early 1990s to counteract the pressure of over-supply and its subsequent unfavorable effects on house prices and instead has driven them in the reverse direction.

It has been tested empirically that the high rate of home ownership has become a perpetuating force in driving up vacancy rate (Hua, 2000). The close link between home ownership rate, vacancy rate and house prices also prevents the housing market in Taiwan from a drastic fall in the recent financial crisis, hence resulting in sharp contrast to what happened in Tokyo and Hong Kong in the early and late 1990s (Hua, 2000). Yet, a high level of owner-occupation, 85% in late 1990s, would eventually set a limit to its further development and consequently weaken the ability in counteracting the pressure of the increased vacant stock. This explains the slow downward adjustment of house prices in the latter half of the 1990s when the growth of home ownership began to slow down.

Inequitable Distribution of Housing Subsidies

Given the uncontested nature for owner occupation as the fundamental policy objective, state housing programs have largely been skewed towards assisted home purchase. Such tenure-biased policy initially focused on the direct provision of for-sale housing and later shifted towards cash subsidy to homebuyers. This apparently contradicts the principle of vertical equity as it excludes households who are too poor to afford home ownership, whilst benefiting those rich enough to afford the down payment (Chen and Chang, 1993). Such inequitable distribution of benefit was further intensified during the boom period. On the one hand, better off homebuyers who had bought cheaper accommodations from the state were able to claim windfall capital gains from the value appreciation of their properties during market booms. Yet on the other hand, poorer households who were forced to stay in the private rental sector because of the under-provision of state rental housing would find their rent pushed up by the booming market. In addition, housing for civil servants also creates problem of vertical equity as the level of housing subsidy is linked to their ranks in the state hierarchy. Hence, higher

subsidy would go to state employees who are on a higher rank and on a higher income (Chen and Chang, 1993).

Another source of horizontal inequity arises from the policy of costing public housing. Public housing legislation requires sale flats to be priced below market price and at the same time the no-profit rule should apply. This would preclude the possibility of cross subsidy as a housing project is not allowed to generate "profit" to compensate for losses of other public housing projects. As the important component of housing cost is land acquisition, it is possible that public housing projects within the same district can command a big difference in sale prices as a result of the differential timing of land acquisition (Chen Li-chun, 1991). Yet, the "no-profit" rule still makes public housing comparatively cheaper than private housing in the relevant localities and thus ensures its competitiveness over private housing.

Finally, the efficiency of targeting is another contentious issue. As the responsibility of implementing various state housing programs rests with different departments, there is a general lack of co-ordination among such programs. For instance, beneficiary targets for housing for workers in fact overlap with targeting subsidy to first time buyers (Chen Li-Chun, 1991). Likewise, the recently introduced housing subsidy for young people also overlaps with subsidy for the existing public housing programs. Perhaps one apparent loss of targeting efficiency is the subsidy to lower-middle-income households who are not eligible for public rental housing but find themselves difficult in shouldering the mortgage burden. They are excluded from public rental housing and have to opt for the home purchase option of public housing (for-sale housing or interest subsidy for home purchase). Yet these households are worse off in terms of living environment as they have to trade off housing quality for a lesser burden of housing cost as the periodically repayment of mortgage is always pricier than rent. It also exposes such households to higher financial risk of an unstable housing market and the liability of a big mortgage (Chen Li-Chun , 1991).

Conclusion

Four features of housing system in Taiwan are identified in this paper. First, the Taiwan housing system is market dominated and the state plays a rather insignificant role. Second, despite little state intervention, the market has remained largely successful to meet housing needs and the people in Taiwan are generally regarded as well-housed. Third, Taiwan is a nation of homeowners. Home ownership has become a cultural symbol of wealth and status. Fourth, housing investment and housing speculations have led to over-production in the residential sector and hence causing much concern for the sustainability of the housing system.

Two questions beg our attention here. First, why is state intervention in Taiwan so minimal compared with a much stronger state presence in the housing arena in other East Asian states? Second, does Taiwan's housing system fit into the Little Tiger Regime advocated by Doling (1999)? Although our discussion in this paper is not conclusive on these two issues, it nevertheless seeks to offer some insights for further research.

Doling (1999), in framing his "Little Tiger" housing policy regime, identifies "some strong common threads weaving through the development of housing policy in the Little Tigers" (p. 247). In the area of housing development, not only did the state realize housing as a productive sector and take a pro-active role in the provision of housing, it is also highly involved "in organizing the factors of production [of housing]" (p. 247) to ensure that the development target can be materialized.

But in the case of Taiwan the state relies heavily on the private sector and only intervenes when necessary to encourage the construction sector to be more capital intensive and productive. State presence is much more restricted when compared with other Asian tiger states. How did this happen? In retrospect, state involvement in housing started as early as in 1949 and an organized large scale effort in public housing provision also took shape when the Planning Committee of Public Housing was formed in 1959. Taiwan was in fact not lagging behind in public housing development compared with Hong Kong and Singapore which started their public housing programs respectively in 1954 and 1964. Taiwan also realized the significance of housing to the national economic development and housing construction targets were incorporated into the six-year Economic Plan in 1976.

What makes Taiwan lagging behind subsequently in public housing provision relative to Hong Kong and Singapore was its failure in delivering the development target. For instance, production of public housing fell behind the planned targets from 1959 to 1975 and the target for the six-year Economic Development Plan missed the housing production target even by half of what it was originally planned (Chen Liang-Chun, 1991). This perhaps reflects the capacity of the state in successfully organizing the factors of housing production. Three factors may account for this failure.

First, land is privately owned in Taiwan and land ownership as a constitutional right has a special political symbol in Taiwan. As an important political instrument for social stability, the redistribution of agricultural land was emphasized when the Nationalist (KMT) government regained control of Taiwan after 50 years of Japanese occupation. It is thus politically sensitive to acquire private land by administrative means for public use. Thus land for public housing development has to be bought from the market and this proved to be costly. Likewise, neither was housing development on public land straight forward as bureaucracy barrier and sectorial interest made land transfer between government departments complicated.

Second, the control of capital for public housing development is crucial to the successful implementation of public housing program. For instance, the Central Provident fund acted as a cheap and secure source of public housing finance in Singapore. Whereas in Hong Kong, public housing facilitated the clearance of Crown land which could be transferred for commercial development in return for a high land premium for the state. Yet, Taiwan possesses neither of these mechanisms and this deprived Taiwan of an important source of capital for public housing program. It was even worse given the competing demand for capital for other public service, particular infrastructural projects which were perceived to be more significant for national economic development.

Third, market failure – the inability of the market to solve housing problem in a socially acceptable way – is always one of the triggering factors for state intervention. Yet, in Taiwan, it was the informal sector which filled the gap left by inadequate market provision. Self-built activity has been the main source of housing provision in rural areas and an important supplement in some metropolitan areas (which in practice was the home buyers who directly hired private builders to build) (Tseng, 1991). The informal sector was also an important source of housing finance before the 1980s (Chang, 1992). Likewise, contribution from families and relatives helps many households satisfy their housing demand. For instance, 18% of households lived in houses owned by their parents or in-laws in 1996 (Chiu, 1996). The existence of a strong informal housing system may perhaps explain why state intervention in housing in Taiwan is weak, yet at the same time the degree of institutionalization in the housing market is not as mature as it should be.

Housing in Taiwan thus appears to be rather unique in East Asia. It is conceptually interesting as it offers some clues as to the possibility of a less state-dependent housing system. This paper has attempted to deliver some empirical evidence and an initial exploration in explaining the absence of strong state intervention in the Taiwan housing system and why it was possible. However, more sophisticated data and in-depth analyses would be needed to unveil the underlying socio-economic forces that shaped the development of housing in Taiwan and to advance our understanding of the tiger housing regimes.

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Appendix: *Schemes of State Intervention in Housing*

For Low-income Households:	
Scheme (Responsible authorities)	Details
Public Housing for Sale (Public Housing Departments)	<p>Eligibility</p> <ul style="list-style-type: none"> • No ownership of housing units. • Holders of local resident registration for more than six months. • Lower income household (standard set by Executive Yuan – below median household income) <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> • Reduced interest mortgage • Exemption on transaction tax <p>Output</p> <ul style="list-style-type: none"> • Up to 2000, 279539 units were built.
Public Rental Housing (Public Housing Departments)	<p>Eligibility</p> <ul style="list-style-type: none"> • No ownership of housing units. • Holders of local resident registration for more than six months. • Lower income household (standard set by Executive Yuan – below median household income) <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> • Rents are set at a low price (8% annual return on provision cost). • Rents include management. <p>Output:</p> <ul style="list-style-type: none"> • In 1991, there were a total of 2651 rental units. • In 1999, 2830 units in Taipei.
Low cost housing (Social Bureau)	<p>Eligibility:</p> <ul style="list-style-type: none"> • Households without working ability, which required public assistance. • Low income households (below lowest quintile of income distribution). <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> • Low rent (Rent depends on the financial circumstances of households). <p>Output:</p> <ul style="list-style-type: none"> • In 1991, 2438 rental units (78% was in Taipei) • In 1991 total stock in Taipei 2088
Mortgage interest subsidy for Home Purchase (Public Housing Departments)	<p>Eligibility:</p> <ul style="list-style-type: none"> • Same as that for Public housing for Sale Scheme. <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> • Subsidized interest rate • Limit on the maximum floor area that can be purchased <p>Output:</p> <ul style="list-style-type: none"> • 117110 loans from 1990–1999.

II. For Designated Groups:	
Housing for Workers (Labour Bureau)	<p>Eligibility:</p> <ul style="list-style-type: none"> Workers in designated industries. No ownership of housing units in areas of work place. History of industrial insurance contribution. <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> Mortgage interest subsidy. <p>Output:</p> <ul style="list-style-type: none"> Up to 2001, 187548 loans were provided.
Housing for Civic Servants (Human Resources Bureau)	<p>Eligibility:</p> <ul style="list-style-type: none"> Employees of the central government and public schools for at least one year. <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> Subsidised interest loans (varied with rank). <p>Output:</p> <ul style="list-style-type: none"> Up to 2000, 88385 loans and housing units were provided.
Housing for Dependants of Servicemen (Ministry of Defense)	<p>Eligibility:</p> <ul style="list-style-type: none"> Servicemen's families who own no private properties. <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> Subsidies for sitting tenants in former Estates for Dependants. Mortgage interest subsidy scheme to purchase private homes. <p>Output:</p> <ul style="list-style-type: none"> Up to 2000, 55, 153 loans were rendered.
Loans to Indigenous People (Committee for Indigenous People)	<p>Eligibility</p> <ul style="list-style-type: none"> Indigenous people who are married and have received no state subsidies <p>Modes of Subsidy:</p> <ul style="list-style-type: none"> Subsidized loans. <p>Output</p> <ul style="list-style-type: none"> 2780 loans up to 1999

Source: Classification of subsidy categories adopted from Chen Li-chun, (1991). Information on low cost housing supplied by the Social Bureau; information and updated statistics on public housing and mortgage interest subsidy in Taiwan from *Construction and Planning Statistical Yearbook of Taiwan and Fuchien Area ROC 2001*; information and updated statistics on public housing in Taipei from Taipei Housing Department (2001); information on housing for workers from Labour Commission (2000); information on loans to civil servants from Civil Service Bureau (2000); information on housing for servicemen and loans to indigenous people from information supplied by the Urban and Housing Administration, Council of Economic Planning and Development.