

CHANGES IN THE

PACIFIC RIM



PLANNING SYSTEMS AND PROPERTY MARKETS

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Taipei

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5.1 INTRODUCTION

Taiwan, officially named the 'Republic of China', is an island country located at the west edge of the Pacific between Japan and the Philippines. Despite its limited land resource, a total area of 36,000 km², it has a population of 21,742,815 persons (1997 figures). On average, there are 604 persons per km² and 3.56 persons per household. Approximately two-thirds of the total area is unfavourable to land development due to site gradients. The island is roughly divided by the Central Mountain Range, which runs from north to south with most settlements developed in the western Taiwan plain. However, Taipei, the capital city, is located at the northern end of Taiwan, it has a total area of 271.8 km² and a population of 2,598,000 persons. On average, the population density is 9,560 persons per km² and household size is 3.04 persons per household.

In 1997, Taiwan's economic growth rate was 6.8%, and per capita income reached approximately US\$13,233. The prime lending rate ranged between 5.5% and 5.8% and consumer prices were up about 0.9% for the year. Taiwan's international reserves grew to US\$83.5 billion, second only to Japan. In terms of employment structure, the total employed population is 9,180,000, 76.48% of whom work in the service sector, 21.96% in industry, whereas only 0.26% work in agriculture. The unemployment rate in 1997 was 2.72%. Comparing Taipei to other areas in Taiwan, living standards are higher; the average current income per family in 1997 was US\$38,272 in Taiwan but US\$51,957 in Taipei.

Traditionally, real estate is highly valued by the Chinese who believe that land is the only real property to accumulate and create assets. This belief has been enhanced by the market performance during the period from the first oil crisis in 1972 to the bubble economy in late 1980s when investment in real estate gained greater profits than other investments. As a result the

Chinese prefer buying to renting a house, 72.2% of dwelling units are self-owned and the average floor area per person is 25.95 m² in Taipei City. However, this belief has been challenged during the 1990s by the rise of an active stock market and the depression of the real estate market in general.

5.2 URBAN PLANNING AND LAND DEVELOPMENT CONTROL

According to the Urban Planning Law in Taiwan, every city has to prepare a master plan at the comprehensive citywide level and detail plans at the specific sectional area level to guide the urban development. The whole of Taipei City is included in one master plan.

The Urban Development Department of Taipei Municipal Government controls the operation of city planning. As shown in Figure 5.1, there is either a 30-day public exhibition for suggestion or, directly taking the land use plan prepared by the private sector, the Urban Development Department will officially prepare the land use plan and then open it to public hearing. Following the public exhibition and hearing of the draft plan, it is reviewed and approved by the Taipei Urban Planning Commission. The plan is then revised and reviewed by the Urban Planning Commission at the Ministry of Interior Affairs. Once approved, the plan is legally binding for land use and building control in Taipei. By law, the approved plan has to be revised every five years to cope with new development and the changing external environment.

The urban land development control system in Taiwan is based on the American-style zoning scheme which is very different from the British planning system in that no planning permission is required for land development unless rezoning is requested. Under the scheme, the total area of Taipei City is planned and divided into different land use zones. In each zone, a group of land uses is explicitly indicated and allowed for building uses. For instance, certain types of manufacturing industries are allowed to build factories in the industrial zone while other types of land use are prohibited.

Topographically Taipei City, located in a basin at the northern end of a mountain range, has a limited area of land suitable for development. As a result of the geographical constraints and land use zoning, 27,180 hectares or 27% of the total planned area is zoned for preservation. In the current (1998) land use plan, 3% is zoned for commercial use, 14% for residential use, 2% for industrial use, 25% for public facility, 2% for agricultural use, 1% for scenic use, and the remaining 53% is zoned for other non-development uses.

Associated with the control of land use, the zoning scheme is complemented with bulk control measures, including floor area ratio (FAR), height ratio, minimum yard depth, minimal building size, and distance between adjacent buildings. The highest FAR for each zone is 800 for commercial, 400 for residential and 300 for the industrial zone. Since land is extremely expensive in Taipei, the allowable height of a building depends on the width of the building's adjacent roadway. The so-called 'building in building' is a type

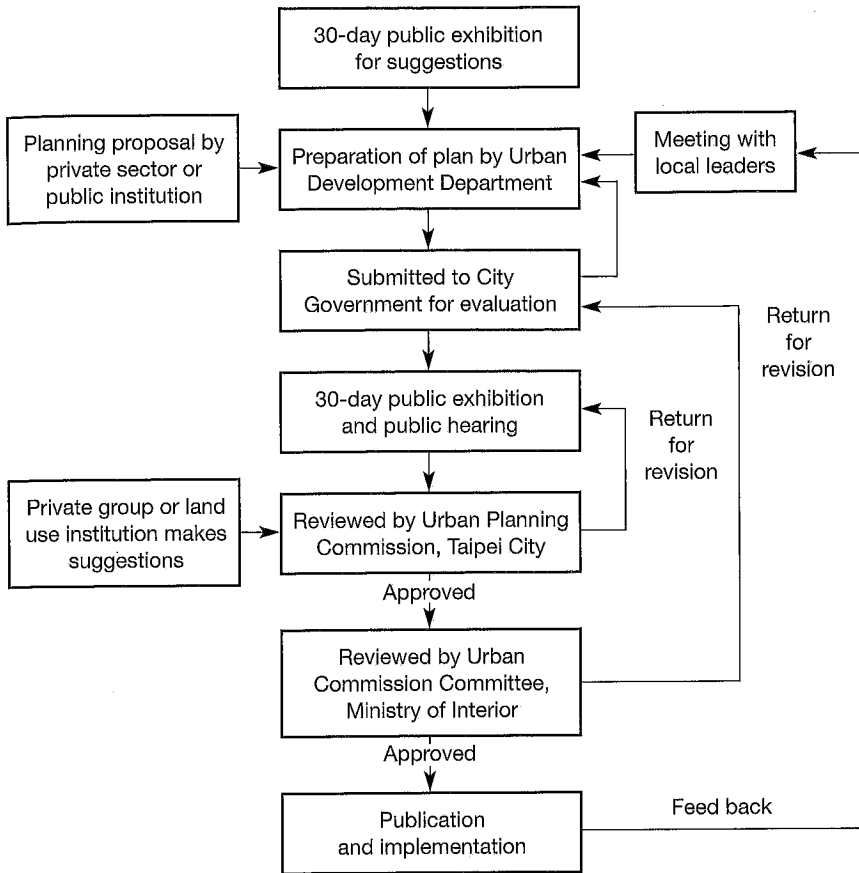


Figure 5.1 Urban planning process in Taipei City

of apartment in which the height of each floor unit is maximized to 4 or 5 metres given the limit of FAR. Furthermore buyers can build a penthouse within the apartment unit after the use permit is obtained and by so doing, apartment developers are able to sell at a higher unit price. However, this trend was stopped by the Taipei Municipal Government in 1997 since so many legal disputes between buyers and developers were created.

In order to better control the landscape and the environmental impacts (particularly traffic and parking) of large-scale land development in Taipei City, the Urban Design Review Committee, a decision-making body consisting of a group of experts and government officials, was established in 1993. Large-scale developments have to be approved by the Urban Design Review Committee before obtaining building permits (Figure 5.2).

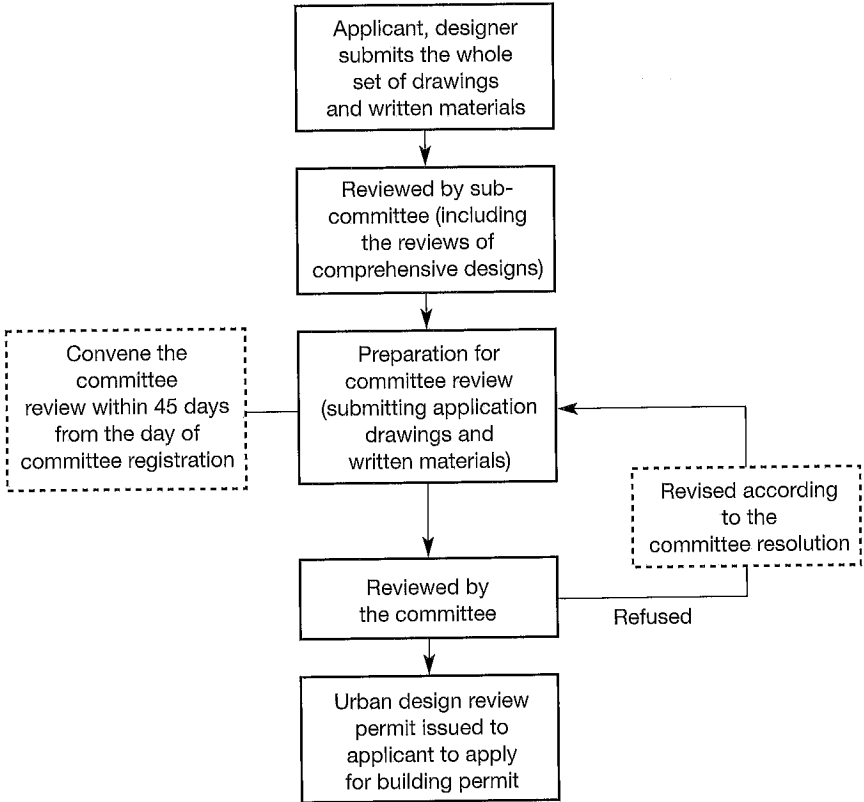


Figure 5.2 Urban design review process in Taipei City

Both the general public and the professional planners are dissatisfied with the existing land development control system in Taipei. On the one hand, more citizen participation in the planning process and community-based planning programmes are called for to accommodate the democratic process, while, on the other hand, more flexibility of land use is requested by developers to meet market demand. It is evident that the Urban Design Review System will play a key role in land development control to supplement the operation of zoning in Taipei City.

5.3 THE PROPERTY MARKET IN TAIPEI CITY

In general, the urban property market is composed of four main sub-markets: housing, industrial, office and retail markets. Similar to other cities, residential property constitutes most transactions of estate market in Taipei. The

housing market in Taipei has interesting features including a high price level, high density, mixed land uses and a high self-owned housing ratio.

Statistics obtained from the latest Census (1990) and Housing Sampling Survey (1995) reveal that the population in Taiwan grew by about one million between 1990 and 1995, yet the population of Taipei City declined by about 130,000 (Table 5.1). The expensive housing costs in Taipei are one of the primary factors forcing people to emigrate from the city and are thus promoting population decline. However, the housing shortage has become worse with the shortfall increasing from 22,101 units in 1990 to 38,850 units in 1995. Nevertheless, owner-occupation is high and about 72% of total dwelling units are occupied by owners in Taipei.

In terms of housing space, the living standards improved slightly during the five-year period with an increase in average floor area per household from 93 m² in 1990 to 104 m² in 1995, and from 25 m² to 26 m² per person. Regarding housing type, more than 80% of households in Taipei are accommodated in apartments contrasting with the national statistic of 35% of households living in apartments. Furthermore about 40% of dwelling units are aged less than 10 years old and about 80% of dwelling units were constructed within the past 20 years, which in comparison with other areas in Taiwan means that Taipei has a relatively new housing stock.

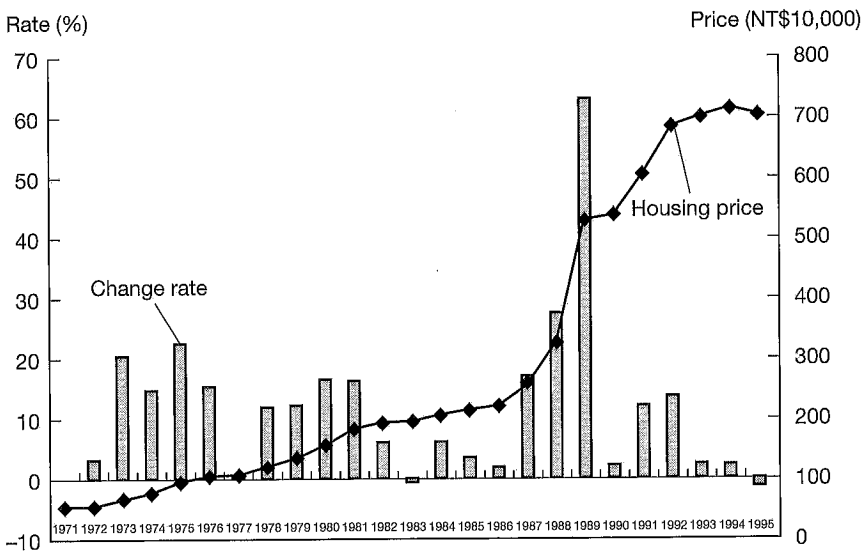


Figure 5.3 Housing prices and change in Taipei (1971–95)

Note: 1 US\$ = 33 NT\$ (exchange rate in March 1998).

Source: Chang *et al.*, 1995.

Table 5.1 Housing stock and housing quality in Taipei/Taiwan.

	1990 Census		1995 Housing Survey	
	Taiwan	Taipei	Taiwan	Taipei
Population (persons)	20,285,626	2,760,475	21,304,181	2,632,863
No. of households	4,943,029	777,343	5,805,286	838,465
Housing stock	5,073,909	755,242	5,473,109	799,615
Home-ownership (%)	78.5	70.2	80.7	72.2
Floor area occupied per household (m ²)	111.0	92.6	113.98	103.95
Floor area occupied per person (m ²)	24.1	24.9	27.11	25.95
Building type(%)				
Detached, Semi-detached and row house	34.9	16.8	65.2	17.1
Low-rise apartment (5 or less storeys)	28.2	55.9	26.1	58.0
High-rise apartment (6 or more storeys)	6.7	27.3	8.6	26.9
Building age(%)				
Before 1945	5.5	2.3	4.4	2.6
1946-1960	6.2	3.4	5.5	4.1
1961-1970	15.2	16.1	11.9	12.9
1971-1980	43.1	44.6	33.5	39.1
1981-1990	30.3	33.6	36.0	38.6
1990 and after	—	—	8.6	2.7

Source: Population Census Office of the Executive Yuan and Directorate General of Budget, Accounting & Statistics, Executive Yuan, 1996.

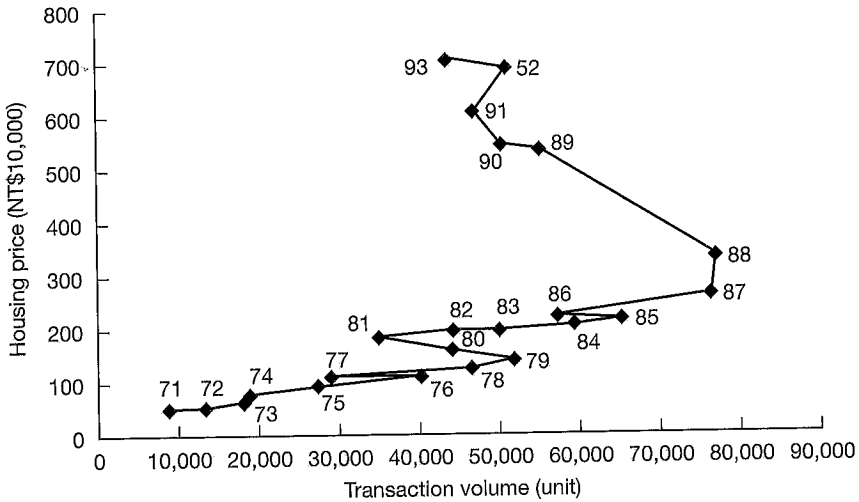


Figure 5.4 Price and transaction volume fluctuation of the Taipei housing market, 1971–93

Source: Chang and Hua, 1996.

Regarding housing price, 1987 represents a turning point in the market. During the period 1987–89, the rate of price increase was about 50% annually. In 1995, the price of housing in Taipei was about US\$0.25 million for an apartment of 100 m², about three times the price 10 years previously (Figure 5.3). Indeed, expensive housing costs is one of the critical municipal issues in Taipei.

Essentially, the market for housing is composed of consumption demand for owner-occupiers and investment demand for either resale or rental purposes. Over a longer period, the performance of the housing market in Taipei may be considered in three stages. Stage one, from 1971 to 1975, is a period of market growth in which a continuous increase in price and transaction volume is apparent (Figure 5.4). Stage two from 1975 to 1985 is a speculative period when price and transaction volume were in flux due to variations in investment demand. The period after 1985 forms the third phase when market price and transaction volume are correlated in a counter-clockwise direction indicating that investment demand in the housing market at this time was gradually maturing.

In terms of this three-stage model of housing market development, the early period of market growth is the result of consumption demand with transaction volume increased continuously despite price rises. Although a time lag occurred in the market supply–demand condition, the external environment (political and economic climate) continues to be favourable

with price and transaction volume in the estate market varying in the same direction. Also since the early 1980s there has been less government intervention in the real estate market.

Generally speaking, the industrial property market in Taipei is declining. The costs of land, labour and environmental disputes are too expensive for traditional industries and, following socio-economic restructuring, manufacturing industries are decentralizing from Taipei City, even to overseas production bases. Owing to the weak market demand for industrial use, no developer is willing to initiate a development project except in the public sector. In order to promote the development of information industry, the Bureau of Industrial Development, Ministry of Economic Affairs has developed the 5 hectare Nankang Software Industrial Park, although strictly speaking it is more an office development than a traditional industrial park. The sale price of property in Nankang Software Park was about US\$2,296/m² in 1998 (Lin, 1997; Yueh and Lin, 1997).

In contrast to industrial property, the demand for shopping centres and office buildings in abandoned industrial sites is very strong though rezoning is required. Since the current (1998) ruling party in Taipei City tends to be anti-capitalist in land use policy, the review process of land use rezoning is fraught with difficulties and is slow. However, due to the pressure of the election for the mayor (at the end of 1998), the Mayor of Taipei started to compromise with developers and some applications were approved. One key project, Jin-Hua Shopping Centre, was the redevelopment of a large derelict beer brewery (7.8 hectares) into a modern shopping centre. Its land price (in 1998) after rezoning for commercial use was about US\$100,000/m².

Since it is difficult for traditional manufacturing industry to survive in Taipei City, there is no market demand for developed factory premises. 'Industrial office', high-rise buildings with building permission for industrial use, have been developed and sold for office use. Although they are illegal uses, office-factories are the mainstream products of the industrial property market. Indeed the recent growth of the office market in Taipei has led many enterprises to develop office buildings for owner-occupation purposes instead of leasing. Furthermore the gains in property holding are more attractive than interest earned on capital.

In terms of the land development control system, two main issues arise in the rezoning of industrial land for commercial uses. First, the spatial distribution of most proposed shopping centres is on the periphery of Taipei City in locations such as Song-shang, Nankang and Shih-lin, as industrial zones were allocated by early planning policies in areas remote from the civic centre. Second, a so-called 'feed-back fee' is required for rezoning approval. Since land use rezoning often creates a significant increase in land value and the taxation system in Taiwan is favourable for landowners to enjoy excess profit from rezoning, the Urban Planning Commission normally tends to

reject a rezoning application unless significant 'development feed-back' is donated by the applicant. However, there is no formal and clear rule to decide how much is needed for the compulsory donation. Such vague policy on 'development feed-back' makes the review process of rezoning very difficult and as a result discourages investment in commercial property development.

5.4 PROPERTY FINANCING AND INVESTMENT

The housing market in Taipei is dominated by the private sector and real estate finance plays a key role in the operation of the property market. However, the institutional system of real estate finance is underdeveloped in Taiwan, there is no secondary mortgage market and no real estate securitization vehicles such as real estate investment trusts (REITs). Therefore the resources and liquidity for property finance are limited and the 'pre-sales' system becomes very important and can be thought as a kind of self-financing system for house-buyers and developers. Once a building permit is obtained, the developer can pre-sell the property before construction to a real estate buyer who will then pay on an agreed schedule according to construction progress. For example, a buyer might pay 5% of the house price for the deposit and sign the contract, specifying the date on which the construction starts. The buyer pays 2-3% of the house price in each construction stage and by the time the property is completed, the buyer should have paid the total down payment (usually 40% of the house price in Taiwan). The rest, 60%, is then financed by a mortgage on the completed building. From the real estate buyer's viewpoint, the large amount of down payment can be paid over a range of two or three years through the pre-sales system.

From the speculative buyer's viewpoint, because only 5% of the house price or even less (the contracting deposit may be as little as 1%) is required in cash, the leverage is very high. Pre-sales contracts have therefore served as popular investment vehicles. There is no liability for transaction tax (capital gain) before the property is completed because the property has no record on the official property registration. Since there is a relatively high transaction tax on registered properties, transactions of pre-sales property are often made before the property is completed.

The pre-sales system, though reasonably efficient for financing property development, has a significant effect on the distribution of risk between the developer and buyer. Since virtual products are sold in the pre-sales system, the reputation of the real estate developer is important and valuable. Indeed there is a lack of security of payment for the buyer if the developer takes the deposits and does not fulfil the contract. Under the system, the buyer is asked to bear the business risk of project failure that the developer would otherwise carry. The process seems unfair to buyers since they are not in the business of building property and they have to pay according to the agreed

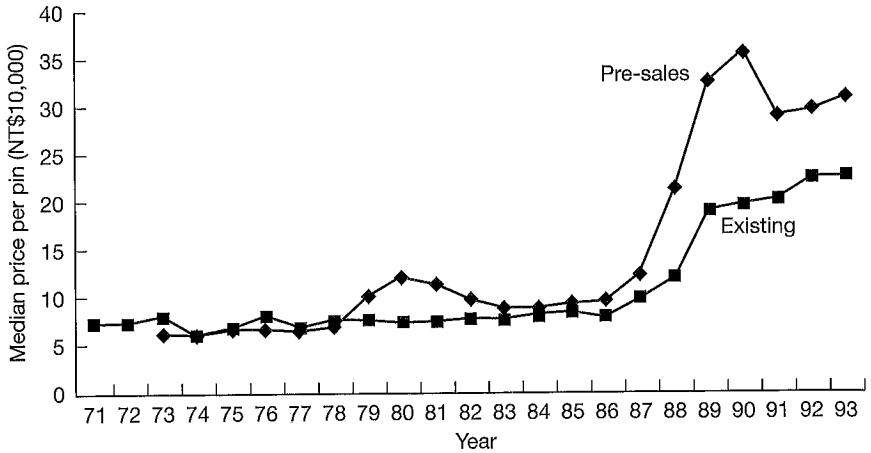


Figure 5.5 Pre-sales house prices versus existing house prices in Taipei, 1971-93 (median price per pin at 1993 constant price)

Note: 1 pin = 3.3 m².

Source: Chang *et al.* 1996.

schedule. In fact, there have been many court cases devoted to real estate pre-sale problems. Nevertheless, pre-sales investment is the most popular real estate selling system for new housing in Taiwan. This explains why there are highly active corporations in the real estate industry and why 80% of home-occupiers own their home even when there is a lack of a formal financing system.

The volatility of the market has contributed to the interest shown by investors/speculators (Figure 5.5). In Taipei, the pre-sales price is usually about 10-30% higher than the completed house price. However, the price difference will become larger during the upswing of the real estate cycle, and smaller or even negative during the downswing of the cycle. Recently, developers have tended not to pre-sell all houses, because they perceive an opportunity to gain more in future increases of house prices. There has been a trend to adopt a so-called portfolio-based marketing strategy in which one-third of the properties are sold in the pre-sales stage, one-third are sold during the construction stage and the final third are sold after completion. The advantages and disadvantages of the pre-sales system are summarized in Table 5.2. In order to protect home-buyers from potential loss, a 'project guaranty scheme' has been enacted under which the developer pays 3-5% of total project cost to a licensed real estate management company (REMC). The REMC guarantees that the project will be completed under the home-buyer's contract, otherwise loss will be compensated.

Table 5.2 Advantages and disadvantages of the pre-sales system in Taiwan

	<i>Advantages</i>	<i>Disadvantages</i>
Developer	Finance through buyers Reduces risk of unsold property	No opportunity to increase price in bull periods Interference from buyer at planning stage
Buyer	Staged payments High leverage No transaction tax before completion	Lack of security for deposit Risk of delay in completion Risk of default by developer Risk of product quality after completion

Source: Chang and Ward, 1993.

5.5 PERFORMANCE OF THE PROPERTY MARKET

Concerning housing costs an affordability index (average housing price/average annual income per household) is used to monitor the burden that residents carry. The index was between 6 and 7 during the period 1971–78 and below 6 for 1979–87. However, following the price boom in 1987–89, the index reached a record peak in excess of 9 (Figure 5.6). Recently, after the burst of the bubble economy, the housing affordability index has declined but still maintains a value of around 7. In comparison to housing affordability indices of between 3 and 4 in cities in Western Europe and North America, the costs of home-ownership are high in Taipei.

The vacancy rate in the housing market in Taiwan has maintained a high level of about 15% (Figure 5.7) and although lower in Taipei City (vacancy rate of 11%) this is much higher than the 3% to 5% vacancy in western cities. In some sense, such a high vacancy rate indicates that the housing market is not operating effectively in Taipei. Furthermore, the variation in the direction of the vacancy rate is opposite to that of housing market prices and the real estate cycle. While house prices peaked during 1987 to 1989, the vacancy rate was at its lowest level. Currently (1998) the house vacancy rate is at the relatively low level of 9% and there has been no recent significant variation in the business cycle of the housing market.

Based on the modified internal rate of return (MIRR) method, the annual average return for housing investment in Taipei City on equity (ROE) from 1971 to 1992 is shown in Table 5.3. The rows indicate the year of buy-in, while the columns indicate the year of sell-out; the resulted inverse triangle represents the annual average ROE between each pair of buy-in and sell-out years. The 'total average' is the average of the summation from a different sell-out year for a given buy-in year. The calculations of standard deviation (SD) and coefficient of variation (CV) are based on the ROE in each year and represent the variation of return rates that reflect the

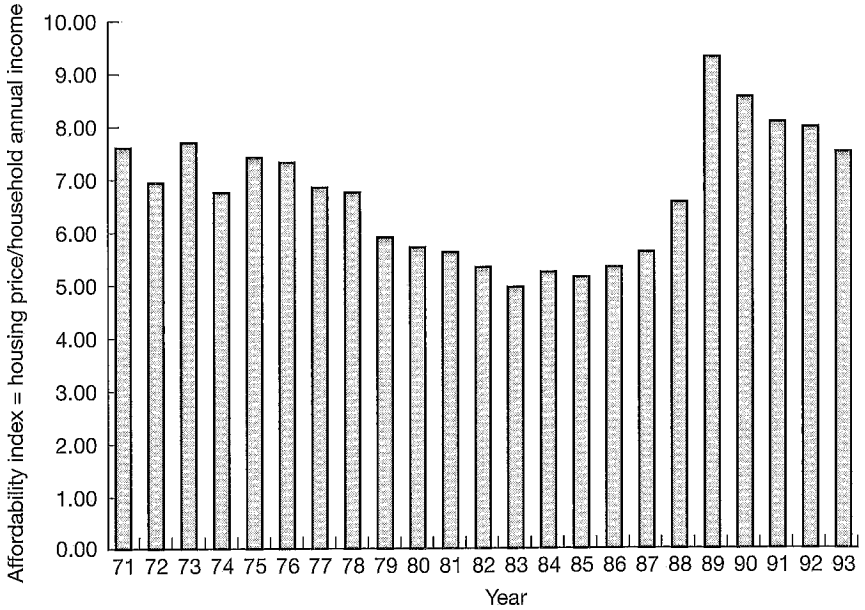


Figure 5.6 Housing affordability index in Taipei (1971-93)
 Source: Housing price: Chang *et al.*, 1995. Household income: *Annual Statistics of Taipei*.

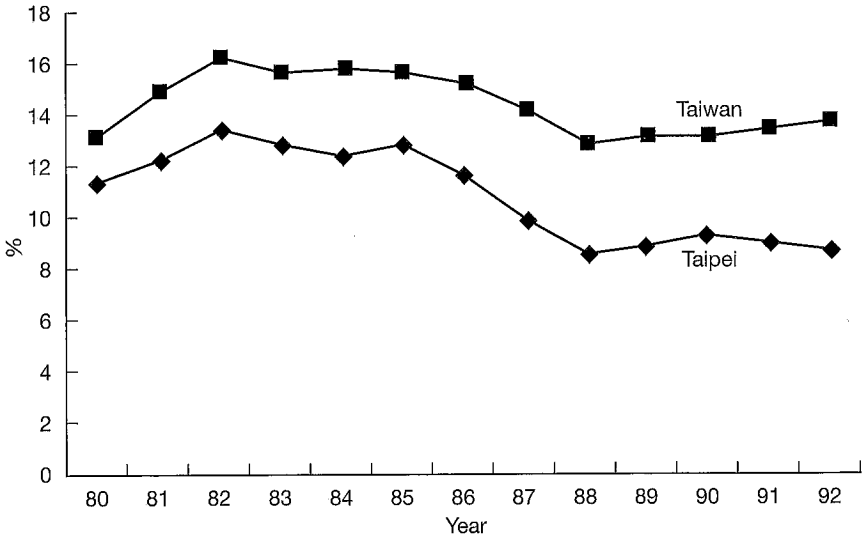


Figure 5.7 Vacancy rate of Taiwan and Taipei City
 Source: Peng and Chang, 1995.

scale of risk. 'Holding period' indicates the length of ownership held by the investor.

The annual average ROE of housing investment in Taipei over this period is about 11.37%, with a SD of 12.14% and a CV of 1.07. Judging from these figures, the return rate of housing investment in Taipei is fairly low while the risk is high. It is interesting to note that any house sold in 1989 gains the higher ROE value on average (20.79%) in comparison to all other years. Furthermore, any house invested in 1987 enjoys the highest average ROE (40.82%) regardless of the year in which the property was sold. On the downside, houses sold in 1986 have lower total average annual ROE (-2.23%), while for houses purchased the lowest average annual ROE (-12.13%) was in 1991. In general, for any housing investment in Taipei if held longer than five years, the ROE can be kept steady at around 13.12% but with little opportunity of a big profit. If the investment is only held for one or two years, then the risk as measured by standard deviation will be higher than average, whereas risk will be lower for any investment held longer than five years

While office market rents and sales prices in most Asian cities have generally decreased, Taipei has luckily escaped the brunt of the recent financial crisis. Both rents and land prices of offices have remained unscathed by the economic crisis. For all types of office space, average rentals in Taipei averaged US\$210 per m². Compared with rental rates in recent years, the 1997 rental reveals a 13.5% increase. The performance of the sales market was also excellent in 1997. The price of Grade A office space has increased 7.7% to US\$53,000 per m². The return rates on investments have ranged from 4.6-5.7%. Figure 5.8 shows the trend of rents of Grade A offices in Taipei City.

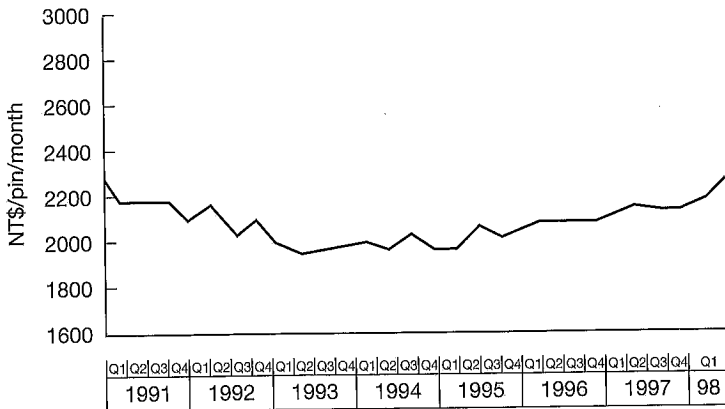


Figure 5.8 Rents of Grade A offices in Taipei
 Source: C.Y. Leung & Company Limited, 1998.

Table 5.3 Annual modified internal rate of return (MIRR) on equity for real estate investment in Taipei by buying year (1971–93)

	<i>Selling</i>											
	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
1971	-19.03%	9.83%	14.60%	19.19%	20.59%	16.37%	16.20%	15.88%	15.63%	17.19%	16.58%	15.34%
1972		20.15%	21.88%	25.68%	25.65%	19.08%	18.31%	17.54%	16.97%	18.59%	17.73%	16.21%
1973			3.64%	20.19%	22.44%	14.41%	14.44%	14.19%	13.95%	16.20%	15.45%	13.91%
1974				17.05%	22.74%	10.93%	11.90%	12.14%	12.25%	15.22%	14.46%	12.78%
1975					12.62%	-0.25%	5.55%	7.93%	9.25%	13.53%	12.91%	11.16%
1976						-29.73%	-6.85%	1.23%	5.34%	11.71%	11.25%	9.38%
1977							-0.64%	8.42%	11.91%	18.60%	16.53%	13.39%
1978								-1.74%	9.38%	20.25%	17.08%	12.96%
1979									-2.84%	20.71%	15.14%	9.63%
1980										26.75%	13.53%	5.74%
1981											-20.81%	-16.97%
1982												-28.96%
1983												
1984												
1985												
1986												
1987												
1988												
1989												
1990												
1991												
1992												
<i>Average</i>	-19.03%	14.99%	13.37%	20.53%	20.81%	5.14%	8.42%	9.45%	10.20%	17.88%	11.81%	6.21%
<i>S.D.</i>		7.30%	9.18%	3.68%	4.92%	18.36%	9.40%	6.89%	6.04%	4.23%	10.99%	14.15%
<i>C.V.</i>		0.49	0.69	0.18	0.24	3.57	1.12	0.73	0.59	0.24	0.93	2.28
<i> Holding</i>												
<i>Period</i>												
<i>(years)</i>	1	2	3	4	5	6	7	8	9	10	11	12
<i>Annual</i>												
<i>Average</i>												
<i>ROE</i>	-0.31%	8.50%	11.30%	12.47%	13.10%	13.05%	12.74%	12.32%	12.33%	12.44%	12.47%	12.70%
<i>S.D.</i>	26.18%	20.02%	15.35%	12.40%	10.04%	7.63%	5.39%	3.41%	3.00%	3.08%	2.99%	2.50%
<i>C.V.</i>	-84.98	2.36	1.36	0.99	0.77	0.58	0.42	0.28	0.24	0.25	0.24	0.20

Note: Between 1971 and 1993, annual average ROE of real estate investment = 11.37%, S.D. = 12.14%, C.V. = 1.07.

Source: Chang, 1996.

<i>Year</i>											<i>Average</i>	<i>S.D.</i>	<i>C.V.</i>
<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>				
15.01%	14.30%	12.71%	13.32%	15.01%	15.93%	15.24%	15.60%	15.07%	14.95%	13.89%	7.65%	0.55	
15.76%	14.88%	13.05%	13.70%	15.55%	16.52%	15.71%	16.07%	15.46%	15.30%	17.61%	3.38%	0.19	
13.60%	12.77%	10.80%	11.73%	13.99%	15.20%	14.40%	14.89%	14.29%	14.20%	14.23%	3.57%	0.25	
12.52%	11.68%	9.50%	10.65%	13.29%	14.72%	13.90%	14.51%	13.91%	13.86%	13.58%	2.85%	0.21	
11.06%	10.25%	7.93%	9.37%	12.39%	14.01%	13.18%	13.88%	13.28%	13.26%	10.63%	3.65%	0.34	
9.49%	8.72%	6.21%	7.99%	11.46%	13.31%	12.45%	13.26%	12.65%	12.67%	6.50%	10.67%	1.64	
12.93%	11.63%	8.50%	10.20%	13.81%	15.64%	14.53%	15.26%	14.46%	14.37%	12.47%	4.45%	0.36	
12.46%	10.94%	7.30%	9.42%	13.60%	15.66%	14.43%	15.25%	14.39%	14.30%	12.38%	5.08%	0.41	
9.33%	7.78%	3.69%	6.59%	11.68%	14.14%	12.85%	13.86%	12.97%	12.96%	10.61%	5.67%	0.53	
6.03%	4.60%	0.00%	3.99%	10.27%	13.29%	11.89%	13.04%	12.09%	12.11%	10.26%	6.61%	0.64	
-9.28%	-7.61%	-11.83%	-4.38%	4.93%	9.43%	8.50%	10.11%	9.28%	9.53%	-1.59%	11.52%	-7.23	
-11.58%	-8.45%	-13.56%	-4.14%	6.87%	11.80%	10.41%	12.00%	10.90%	11.04%	-0.33%	13.87%	-41.56	
-11.63%	-7.31%	-14.65%	-2.82%	10.22%	15.47%	13.25%	14.70%	13.16%	13.10%	4.35%	12.03%	2.77	
	-22.10%	-27.14%	-7.17%	11.10%	17.54%	14.45%	16.00%	14.03%	13.87%	3.40%	17.53%	5.16	
		-45.89%	-9.12%	16.69%	23.67%	18.59%	19.73%	16.88%	16.35%	7.11%	23.64%	3.32	
			16.60%	45.08%	45.01%	32.71%	31.36%	26.05%	24.16%	31.57%	10.60%	0.34	
				66.79%	57.70%	36.17%	33.59%	26.48%	24.21%	40.82%	17.41%	0.43	
					45.27%	21.94%	24.51%	17.87%	16.90%	25.30%	11.58%	0.46	
						-15.53%	7.44%	3.93%	6.21%	0.51%	10.79%	21.05	
							8.75%	2.59%	5.69%	5.68%	3.08%	0.54	
								-20.54%	-3.72%	-12.13%	11.90%	-0.98	
									-4.95%	-4.95%			
6.59%	4.43%	-2.23%	5.37%	17.22%	20.79%	14.69%	16.19%	12.34%	12.29%				
10.26%	11.23%	17.08%	8.22%	15.35%	13.66%	10.13%	6.65%	9.31%	6.90%				
1.56	2.53	(7.68)	1.53	0.89	0.66	0.69	0.41	0.75	0.56				

13	14	15	16	17	18	19	20	21	22
13.19%	13.49%	13.79%	14.12%	14.40%	14.74%	14.87%	15.08%	15.18%	14.95%
1.71%	1.09%	0.70%	1.02%	1.35%	1.15%	0.99%	0.77%	0.16%	
0.13	0.08	0.05	0.07	0.09	0.08	0.07	0.05	0.01	

As a result of economic restructuring, the industrial property market is dominated by industrial office space. Indeed, 1998 is considered to be a peak year for the pre-sale industrial office market. Taking the Neihu industrial offices as an example, their sale price is about US\$18,000–23,000 per m². It is interesting to note that most industrial offices are occupied by electronic manufacturing and software industries.

The proliferation of chain stores over the past two decades is an indicator of the development of the retail industry in Taipei. In addition, the newly implemented two-day weekend system from 1998 has impacted on a number of different segments of the retail market in Taiwan. Beyond the traditional sales and entertainment, department stores have begun providing multifunctional environments which include shopping, high-tech entertainment, recreational activities and other facilities. Meanwhile, changes in consumption patterns have brought about changes in store formats. Retailers must create wide open stores that emphasize service and offer a broad production selection. The introduction of hypermarket industry (e.g. Carrefour, Makro) is the response to such consumption needs. Rental rates vary widely in different commercial areas in Taipei City. In general, rental rates ranged from US\$500–1,500 per m² in 1997. It is expected that more large shopping complexes will be established in Taipei in the coming decade.

5.6 CONCLUSIONS

Taipei is a city undergoing radical restructuring in terms of socio-economic and physical developments and it has been fortunate to maintain economic prosperity while most Pacific/Asian cities have suffered from the financial crisis of 1997 and 1998. In fact, Taiwan is losing its competitive advantage in labour-intensive industries to neighbouring countries such as mainland China and Southeast Asian countries. As a result, industrial factories are giving way to business offices and shopping centres. Indeed, as an increasing number of foreign investors have set up operations in Taipei, offices have become an important sector in the property market in Taipei. The completion of the Taipei transit system and surrounding expressway systems has contributed to population decentralization from the city to surrounding suburban areas. It is expected that this process will continue over the short to medium term.

The traditional zoning based land development control system is now the impediment to the pace of development of Taipei in a period of radical restructuring. Due to the rigid 'use group', legal uses are unable to match the market demand and illegal mixed land uses are found in residential and industrial zones. Also the slow land use rezoning process has hindered the pace of business and shopping centre development in derelict industrial areas. In this context, redevelopment of brownfield sites is currently a big challenge in Taipei.

A number of factors that potentially influence the development of Taipei can be identified.

First, political tension between mainland China and Taiwan has played a key role in the real estate market. During the presidential election (March 1996) in Taiwan, China threatened Taiwan's safety by launching missiles which caused a significant drop in stock market and property prices. Since then, the political confrontation has subsided. It is widely believed that the property market in Taipei will benefit from the political stability.

Second, the property market of Taipei is a function of the city's economic performance and is deeply influenced by its competitiveness in the global economy. Taipei, as the economic centre of Taiwan, should have office and retailing (shopping centres) property yielding better returns than the housing and industrial property markets. For instance, with Taiwan planning to be a formal member of the World Trading Organisation by 2000, the agricultural sector will be forced to release more land for industry and housing outside Taipei, whereas service industries will be more concentrated in the city due to agglomeration economics.

Third, the commercial function of Taipei has expanded from the central train station area (old CBD area) toward the east side of the city. The Hsin-Yi district, where the Taipei Municipal Government relocated about four years ago, is regarded as the rising star for future real estate development in Taipei. In addition to major financial agencies, many enterprises have decided to develop office buildings for their headquarters in Hsin-Yi district. Recently, the transaction price of land in Hsin-Yi district reached a record at US\$330,000/m².

Fourth, the zoning system has been criticized for its rigidity in land use control and its inability to meet the market demand for innovative land uses. For instance, KTV is a kind of entertainment house subdivided into many closed small rooms that are equipped with Karaoke and TV sets to facilitate singing at a customer's choice. It is a popular place for indoor recreation in Taipei. However, KTV houses in Taipei once were totally illegal since they were not included in any permitted land use group for any zone. To meet the market trend of mixed land use for large-scale development, flexibility has to be provided in the land development control mechanism. Central government is currently making efforts to adopt a development permission system, similar to that in Great Britain. If the new system is implemented, more development projects with mixed land uses could be expected.

Fifth, for social equity considerations the unclear policy of 'development feed-back' is unsustainable. Due to the significant potential profit in land use rezoning, urban planning commissioners are unwilling to support rezoning unless some amount of development feed-back is donated. For a long time, the development feed-back was that the landowner donates a certain proportion of rezoned land. Although land donation by certain proportion is easy to calculate, it is inflexible and donated land is often poorly managed. The situation has become worse since 1995 with more 'feed-back' being

sought by the planning commission but without a clear calculation method. Again, central government is trying to develop a more reasonable system for local government to ask for development feed-back, which should help to smooth the process of land use rezoning.

Finally, in terms of spatial structure, the property market will be significantly influenced by the completion of the mass rail transit (MRT) system and the high-speed rail (HSR) system. Currently, there are only two MRT lines in operation, though during 1999–2002, a further line will be completed for operation and this will open up the prospect of further decentralization of housing. With the completion of the HSR, the role of Taipei as the economic centre of Taiwan will be enhanced with potential spin-off benefits for business and the commercial property market.

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