

## CHAPTER 2

### HOUSEHOLDS AND HOUSING MARKET IN THAILAND

#### 2.1 Households in Thailand

##### 2.1.1 Household Income

Based on the 2006 Household Socio-Economic Survey by National Statistical Office (NSO), the average household income in Thailand in 2006 was 17,787 baht per month, growing 9% p.a. from the 2004 survey. Over 70% of the income was classified as earnings, including wages and salaries, profits from non-farming business, and profits from farming activities. Table 2.1 shows the average monthly household income in 2002, 2004, and 2006 by source of income.

TABLE 2.1  
Average monthly household income by source of income  
in 2002, 2004 and 2006

	(Baht/month)		
<b>Source of Income</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>
<b>Total monthly income</b>	<b>13,736</b>	<b>14,963</b>	<b>17,787</b>
<b>Total current income</b>	<b>13,508</b>	<b>14,778</b>	<b>17,537</b>
Money income	11,318	12,423	14,946
From Earnings	9,836	10,818	12,929
Wages and salaries	5,772	6,558	7,109
Net profits from business	2,626	2,668	3,628
Net profits from farming	1,437	1,591	2,193
From Current transfers <sup>1</sup>	1,263	1,412	1,671
From Property income	219	194	346
Non-money income <sup>2</sup>	2,190	2,354	2,591
<b>Non-current money income</b>	<b>228</b>	<b>186</b>	<b>251</b>

Source: National Statistical Office.

<sup>1</sup> Includes assistance payments, pension and annuities, terminal pay.

<sup>2</sup> Includes imputed rental value of owned dwelling.

To analyze the distribution of income, households were equally divided into 10 decile groups, ranking from lowest monthly income in the first group to the highest monthly income in the tenth group. Table 2.2 shows that the income of the highest decile group was approximately 30 times that of the lowest decile group. However, if only households in Greater Bangkok are considered, the income of the highest decile group is approximately 15 times that of the lowest decile group.

TABLE 2.2  
Current household income by decile groups and region in 2006

(Per Capita, Baht/month)

Decile Group by Current Income		Whole Kingdom	Greater Bangkok <sup>3</sup>	Central	North	Northeast	South
Lowest Income	1	797	2,584	1,274	697	605	1,040
	2	1,454	4,059	2,119	1,345	1,051	1,745
	3	1,977	5,215	2,712	1,722	1,366	2,324
	4	2,524	6,242	3,306	2,147	1,711	2,906
	5	3,185	7,254	3,976	2,605	2,063	3,582
	6	4,038	8,438	4,799	3,148	2,477	4,384
	7	5,226	9,922	5,861	3,912	3,068	5,406
	8	6,955	12,478	7,422	5,100	4,015	7,119
	9	9,860	16,918	10,027	7,466	6,056	10,099
Highest Income	10	23,793	38,206	24,643	17,538	15,260	22,524

Source: National Statistical Office.

### 2.1.2 Household Expenditure

The same survey indicated that average household expenditure<sup>4</sup> was 14,311 baht per month, increasing 8% p.a. from the previous survey. Of the total expenditures, over 20% was classified as related to housing and household operations.

<sup>3</sup> Including Nonthaburi, Pathum Thani and Samut Prakan

<sup>4</sup> Exclude saving and the capital formation expenditures such as purchase or hire purchase of house and land, jewelry, life insurance saving group, etc.

The breakdown of average monthly per household by expenditure groups for the whole kingdom in 2002, 2004 and 2006 is shown in Table 2.3.

TABLE 2.3  
Average monthly expenditures per household by expenditure group  
in 2002, 2004 and 2006

(Baht/month)

Expenditure Group	2002	2004	2006
<b>Consumption expenditures</b>	<b>9,601</b>	<b>10,885</b>	<b>12,701</b>
Food and beverages <sup>5</sup>	3,654	3,769	4,221
Alcoholic beverages	143	206	251
Tobacco products	104	107	129
Apparel and footwear	354	385	408
Household operation, Furniture and Equipment <sup>6</sup>	2,295	2,511	3,106
Medical care	252	262	305
Personal care	294	320	405
Transport and Communication	1,928	2,671	3,084
Recreation Reading and Religious Activity	217	237	322
Education	257	266	283
Miscellaneous	103	151	188
<b>Non-consumption expenditures<sup>7</sup></b>	<b>1,288</b>	<b>1,411</b>	<b>1,610</b>
<b>Total monthly expenditures</b>	<b>10,899</b>	<b>12,297</b>	<b>14,311</b>

Source: National Statistical Office.

<sup>5</sup> Excludes alcoholic beverages.

<sup>6</sup> Includes imputed rental value.

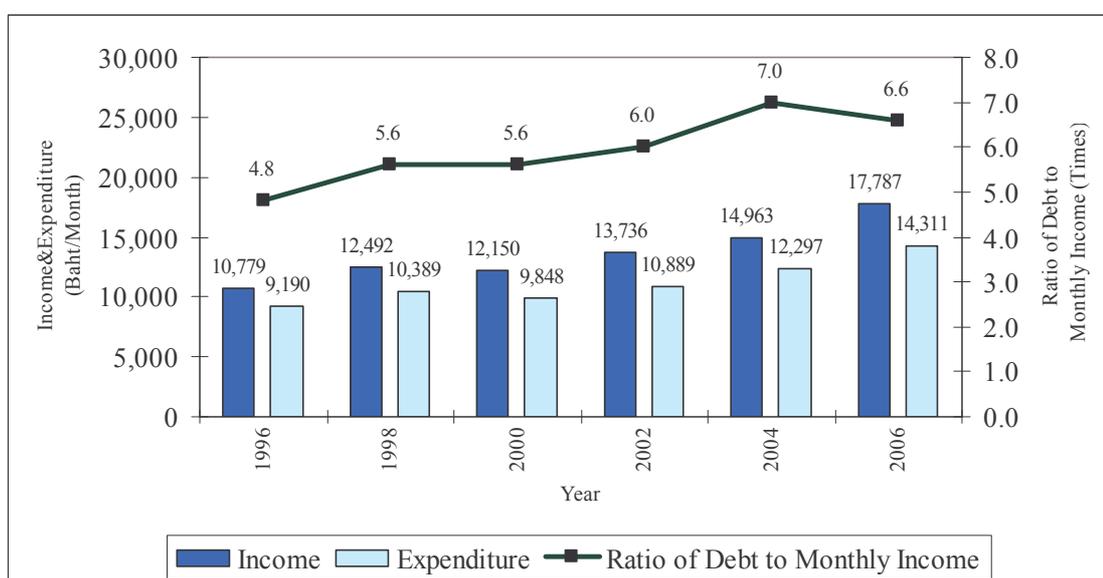
<sup>7</sup> Non-consumption expenditures include the amount spent on taxes, contributions, insurance premiums, lottery tickets, interest on debts, and other non-consumption items.

### 2.1.3 Household Debt

Regarding debt per household, the survey reported the average household debt in 2006 to be 116,585 Baht, increasing 6.4% p.a. from the last survey. Over a half of private, non-institution households in the country were in debt. Around 34% of the household debt was reported to be related to purchase/hire-purchase of house and land. 27.6% of the household debt was for household consumption, 18.3% was related to business operations in non-farming businesses and 14.2% was for agricultural operations. Only 3.4% of the household debt was used for education. Figure 2.1 shows average income, average expenditure, and average debt to income ratio for the past ten years.

FIGURE 2.1

Average monthly household income & expenditure, and ratio of household debt to monthly income in 1996-2006



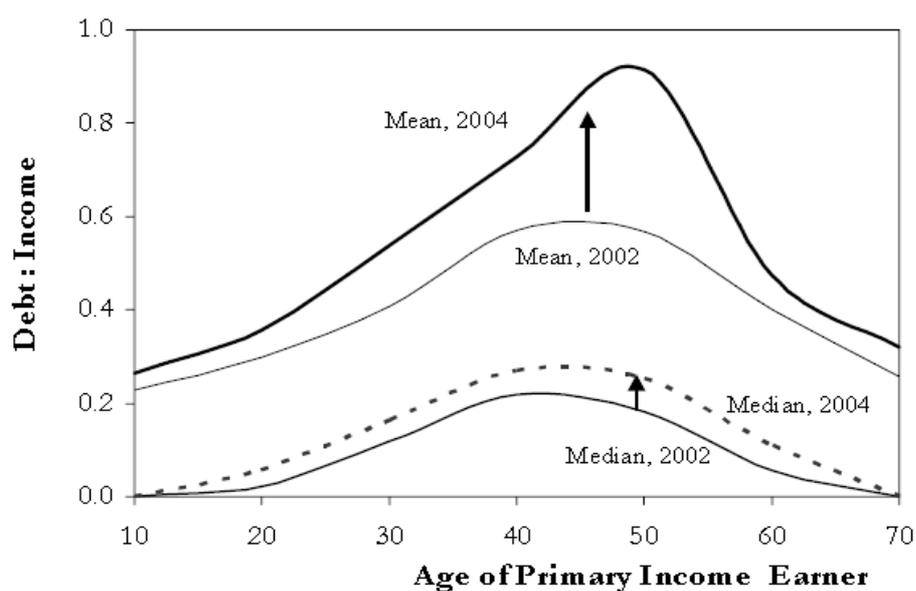
Source: National Statistical Office.

The micro-level household data in the survey were analyzed by Thaicharoen, Ariyapruchya, and Chucherd (2004), drawing a link between a household's age and its debt. They found that the mean or median value of debt to income ratio steadily rose to peak at the middle-aged group, from which point it steadily declined. Figure

2.2 depicts the age profile of household debt to household income. The horizontal axis represents the age of the household's primary income earner. The vertical axis represents the debt to annual income ratio.

FIGURE 2.2

Thai household's age profile of debt to income during 2002-2004



Source: Thaicharoen, Ariyapruchya, and Chucherd (2004).

In addition, the mean of the debt to income ratio was significantly higher than its median. This is indicative of Thailand's skewed distribution of debt in which the majority of households have below average debt loads and a minority of households have above average debt loads. Also, the change in the age profiles from 2002 to 2004 shows an increase in indebtedness across all age groups, in particular the middle-aged groups.

#### 2.1.4 Asset and Housing Status

Classifying household assets into house/land/building, vehicles, and financial assets, Table 2.4 shows the percentage of households owning each type of assets based on estimated value.

The table shows that 17.8% of households owned real estate for living at an amount less than 10,000 Baht. All households that rented their primary residence should be included in this group. About 58.2% of households reported owning housing assets worth more than 100,000 Baht. At the same time, about 40.8% of households reported holding less than 10,000 Baht worth of financial assets. Moreover, only 12% of households reported owning financial assets worth more than 100,000 Baht. To some extent, this finding can confirm the significance of housing assets in the wealth of household.

TABLE 2.4  
Percentage of households reporting assets

(Baht)	House/Land/Building		Vehicles (exclude bicycle)	Financial Assets
	For living	For business of household and Other		
Less than 10,000	17.8%	56.1%	29.7%	40.8%
10,000 - 30,000	3.7%	3.3%	26.9%	24.6%
30,001 - 50,000	5.5%	2.8%	11.1%	12.0%
50,001 - 100,000	14.7%	5.9%	8.0%	10.7%
100,001 - 500,000	40.4%	21.1%	17.1%	8.5%
500,001 - 1,000,000	10.5%	6.7%	5.3%	2.0%
1,000,001 - 5,000,000	6.4%	3.6%	1.3%	1.2%
More than 5,000,000	0.9%	0.5%	0.1%	0.3%
Total	100.0%	100.0%	100.0%	100.0%

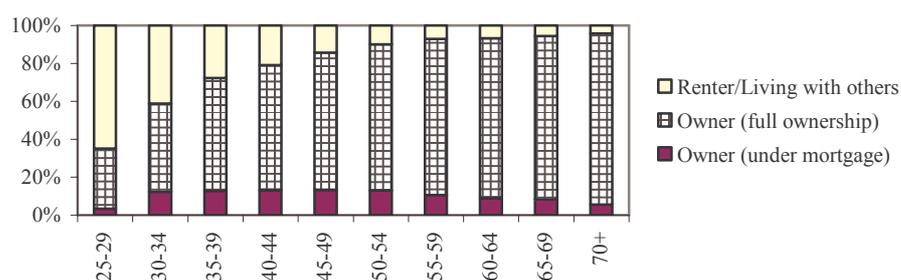
Source: National Statistical Office.

On the subject of housing tenure status, Siripanyawat (2006) summarized the housing tenure status profile of households by age group, classifying housing tenure

status as owner (under mortgage), owner (with full ownership), and renters. Figures 2.3 and 2.4 show the results on a countrywide basis and for Bangkok, respectively.

FIGURE 2.3

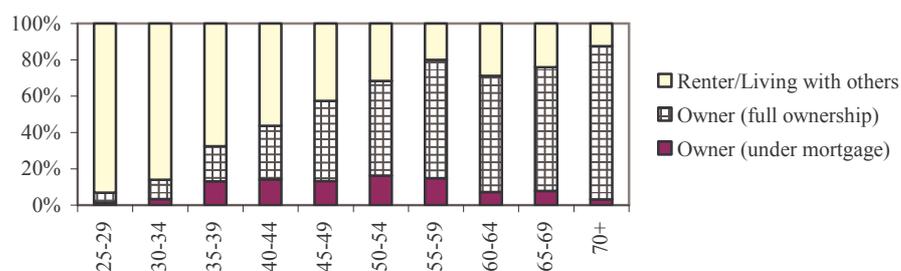
Housing tenure status – by age group (countrywide)



Source: Siripanyawat (2006).

FIGURE 2.4

Housing tenure status – by age group (Bangkok)



Source: Siripanyawat (2006).

Both figures show that most households start their life cycle as renters. Households outside Bangkok decide to get a house of their own sooner in life than household in Bangkok. Presumably, this is because housing is relatively more expensive in Bangkok and because individuals in Bangkok get settled (e.g. get married) later in life.

### 2.1.5 Demographic structure

Table 2.5 shows the demographic indicators of Thailand, which were prepared by the U.S. Census Bureau. The estimates and projections were based on a wide range of data, including censuses, surveys, and vital statistics as well as data on international migration and refugee movements. Other information, such as public health efforts, socio-political circumstances, and historical events such as natural disasters and conflict, were also considered.

TABLE 2.5:  
Demographic indicators of Thailand

<b>Indicators</b>	<b>2007</b>	<b>1995</b>	<b>2005</b>	<b>2015</b>	<b>2025</b>
<b>Population</b>					
Midyear population (in thousands)	<b>65,068</b>	58,856	64,186	68,063	70,524
Growth rate (percent)	<b>0.7</b>	1.2	0.7	0.5	0.2
<b>Fertility</b>					
Total fertility rate (births per woman)	<b>1.6</b>	2	1.6	1.7	1.7
Crude birth rate (per 1,000 population)	<b>14</b>	19	14	12	11
Births (in thousands)	<b>893</b>	1,101	899	845	796
<b>Mortality</b>					
Life expectancy at birth (years)	<b>73</b>	70	72	75	77
Infant mortality rate (per 1,000 births)	<b>19</b>	28	20	15	11
Under 5 mortality rate (per 1,000 births)	<b>25</b>	38	27	19	14
Crude death rate (per 1,000 population)	<b>7</b>	6	7	8	9
Deaths (in thousands)	<b>462</b>	375	448	532	623

Source: U.S. Census Bureau, International Data Base.

In 2007, Thailand's population reached 65 million, with the population growth rate estimated at 0.7% per year. This growth rate has been decreasing from 1.2% in 1995 and is expected to continue to decline in the future. Life expectancy has improved from 70 years in 1995 to 73 years in 2007. Figures 2.5 and 2.6 show estimated distribution of population by age in 2007 and 2025, respectively.

FIGURE 2.5  
Thailand's population pyramid in 2007

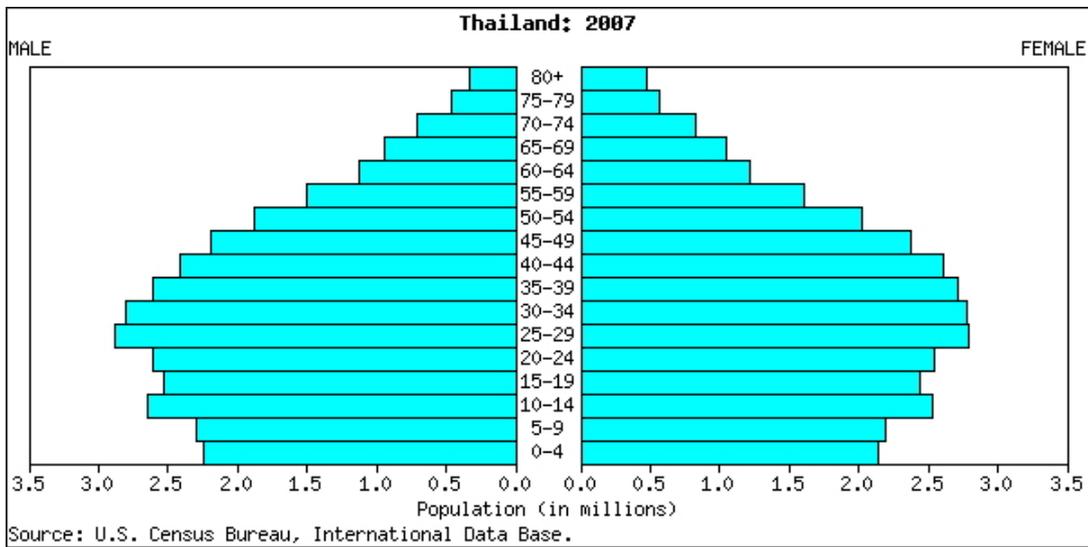
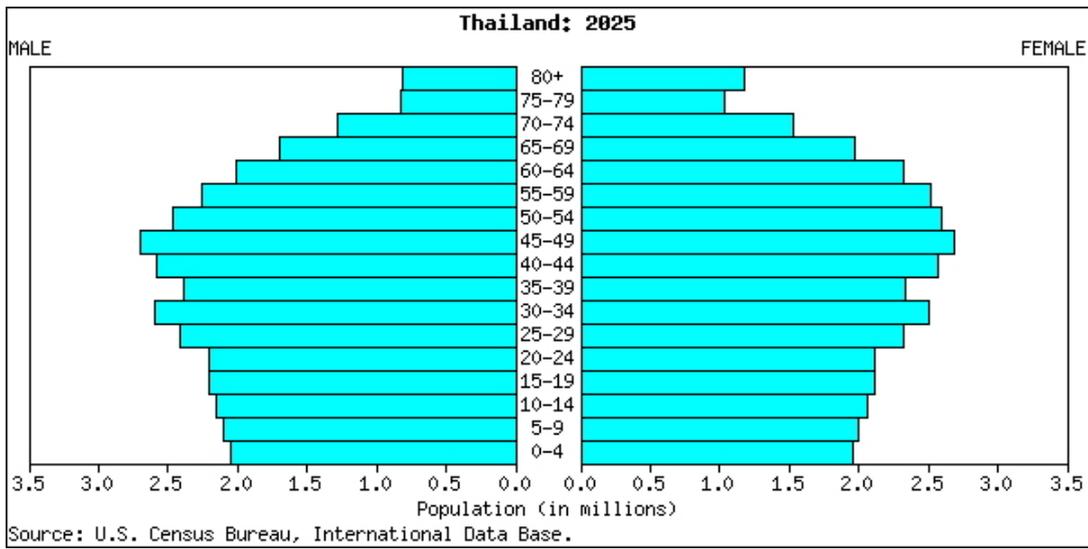


FIGURE 2.6  
Thailand's population pyramid in 2025

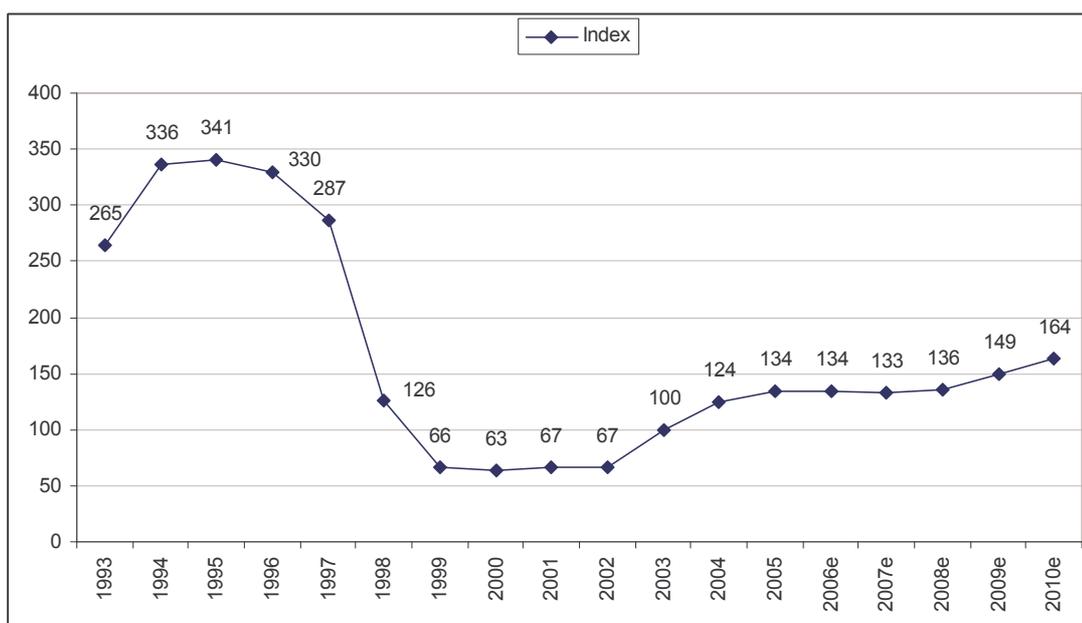


## 2.2 Housing market in Thailand

### 2.2.1 Demand for housing

Factors affecting the demand of housing include the price of the house, price of land, cost of construction, various kinds of taxes as well as the characteristics of population including education, income level, marital status, and size of household. Nowadays, increasing population and migration into urban areas has created a demand for housing in big cities. Land Institute Foundation estimates that the demand for housing in Bangkok and vicinities slightly dropped (-0.4% change) to 67,569 units in 2005. Using 2003 as a base year, the housing demand index rose to 134 in 2005, as shown in Figure 2.7. Most of the demand was in the detached house sector with the price lower than 3 million Baht. In 2006, the demand for condominiums along the routes of mass transit network rose sharply, whereas the demand for townhouse and commercial buildings was roughly stable.

FIGURE 2.7  
Housing demand index for Bangkok and vicinities



Source: Land Institute Foundation.

### 2.2.2 Supply of housing

Table 2.6 shows that completed and registered housing stock has been steadily increasing to 20,089,221 units in 2007. Of this figure, 2,207,453 units, representing over 10%, are in Bangkok.

TABLE 2.6  
Completed and registered<sup>8</sup> housing units, nationwide from 1997 to 2007

(Number of units)

Year	Region/Province							Total
	Bangkok	Vicinities of <sup>9</sup> Bangkok	North	Central	East	Northeast	South	
1997	1,810,530	1,300,927	3,199,391	2,112,576	772,102	4,403,779	1,896,450	15,495,755
1998	1,854,334	1,347,042	3,265,399	2,175,098	799,930	4,532,883	1,960,869	15,935,555
1999	1,899,264	1,389,586	3,353,913	2,246,534	835,538	4,713,592	2,059,840	16,498,267
2000	1,901,510	1,396,861	3,360,657	2,254,980	842,912	4,732,880	2,070,370	16,560,170
2001	1,928,921	1,425,244	3,415,458	2,302,161	868,569	4,837,132	2,132,988	16,910,473
2002	1,963,660	1,466,327	3,481,892	2,354,364	899,866	4,940,797	2,202,438	17,309,344
2003	2,020,019	1,525,500	3,571,560	2,423,677	942,220	5,084,107	2,286,340	17,853,423
2004	2,050,411	1,598,965	3,675,709	2,507,583	997,928	5,217,501	2,384,840	18,432,937
2005	2,091,558	1,678,853	3,768,261	2,584,443	1,058,446	5,350,332	2,484,891	19,016,784
2006	2,150,706	1,764,697	3,848,337	2,653,053	1,114,581	5,479,466	2,572,005	19,582,845
2007	2,207,453	1,843,282	3,912,312	2,717,382	1,168,786	5,589,146	2,650,860	20,089,221

Source: Data Processing Center, The Bureau of Registration Administration, Department of Provincial Administration.

Compiled by: Real Estate Information Center.

<sup>8</sup> All registered housing means buildings constructed for housing purposes including rafts or ships which are regularly used and stationed at port, or places or vehicles which are common habitations.

<sup>9</sup> Including Samut Prakan, Samut Sakhon, Nakhon Pathom, Nonthaburi and Pathum Thani.

TABLE 2.7  
Land subdivision permits, nationwide from 2003 to 2007

(Number of projects)

Region / Province	Year				
	2003	2004	2005	2006	2007
Bangkok	136	145	161	148	118
Vicinities of Bangkok	122	150	147	180	163
North	19	33	35	34	28
Central	25	28	52	46	44
East	41	68	87	63	77
Northeast	17	33	47	20	16
South	17	44	73	33	19
<b>Total</b>	<b>377</b>	<b>501</b>	<b>602</b>	<b>524</b>	<b>465</b>

Source: Department of Lands.

Complied by: Real Estate Information Center.

TABLE 2.8  
Land subdivision permits, nationwide from 2003 to 2007

(Number of units)

Region / Province	Year				
	2003	2004	2005	2006	2007
Bangkok	13,974	15,906	18,433	18,722	13,446
Vicinities of Bangkok	34,270	25,233	27,866	32,107	29,813
North	1,614	3,197	4,159	3,088	1,862
Central	3,709	5,113	6,603	4,810	4,398
East	5,354	6,674	10,408	6,110	6,277
Northeast	1,560	2,679	4,323	1,329	1,003
South	1,971	2,947	5,911	2,695	1,805
<b>Total</b>	<b>62,452</b>	<b>61,749</b>	<b>77,703</b>	<b>68,861</b>	<b>58,604</b>

Source: Department of Lands.

Complied by: Real Estate Information Center.

Table 2.7 shows that land subdivision permits for housing have been fluctuating around 400 to 600 projects per year. Most of the permits were for projects in Bangkok and vicinities. Table 2.8 shows the figures in number of units. Table 2.9 and Table 2.10 shows the housing construction permits for low-rise housing and high-rise housing, respectively, in 2005, 2006, and 2007 Q1-Q3 for each region. The figures show a strong trend towards high-rise housing in 2006. Total housing

construction permits for high-rise housing increased from 6,475,970 square meters in 2005 to 11,784,190 square meters in 2006. At the same time, the total construction permits for low-rise housing dropped from 36,511,490 square meters in 2005 to 33,880,958 square meters in 2006. In the first three quarters of 2007, both low-rise and high-rise showed minor falls.

TABLE 2.9  
Low-rise housing<sup>/1</sup> construction permits in 2005 to 2007

Region/ Province	2005		2006		2007(Q1-Q3) <sup>/2</sup>	
	Units	Area (m <sup>2</sup> )	Units	Area (m <sup>2</sup> )	Units	Area (m <sup>2</sup> )
Bangkok	25,684	7,425,100	25,096	6,224,892	14,240	3,771,173
Vicinities of Bangkok	39,667	6,862,811	40,692	7,171,644	33,670	5,215,802
North	26,338	3,875,364	23,638	3,303,504	15,685	2,530,767
Central	22,705	3,015,167	20,061	2,513,781	14,399	1,825,541
East	35,358	4,044,342	30,833	4,082,224	25,666	3,209,387
Northeast	47,458	5,787,677	38,657	4,659,214	32,695	4,349,555
South	37,212	5,501,029	32,816	5,925,699	22,158	3,689,349
Total	234,422	36,511,490	211,793	33,880,958	158,513	24,591,574

Source: 1) National Statistical Office 2) Public Works Department of Bangkok Metropolitan Administration.

Compiled by: Real Estate Information Center.

Remark: <sup>/1</sup> Low-rise housing means detached houses, duplexes and townhouses but exclude commercial building.

<sup>/2</sup> Estimated by Real Estate Information Center.

TABLE 2.10  
High-rise housing<sup>1</sup> construction permits in 2005 to 2007

Region/ Province	2005		2006		2007(Q1-Q3) <sup>2</sup>	
	Buildings	Area (m <sup>2</sup> )	Buildings	Area (m <sup>2</sup> )	Buildings	Area (m <sup>2</sup> )
Bangkok	815	3,087,122	1,241	7,371,824	921	3,381,950
Vicinities of Bangkok	1,222	2,043,604	1,050	2,267,276	1,327	2,423,527
North	69	75,842	140	302,772	202	371,199
Central	187	216,349	138	286,592	93	172,933
East	274	518,590	465	915,125	379	715,807
Northeast	225	259,107	161	226,835	312	347,275
South	305	275,356	218	413,766	339	312,278
Total	3,097	6,475,970	3,413	11,784,190	3,573	7,724,969

Source: 1) National Statistical Office 2) Public Works Department of Bangkok Metropolitan Administration.

Compiled by: Real Estate Information Center.

Remark: <sup>1</sup> Low-rise housing means detached houses, duplexes and townhouses but exclude commercial building.

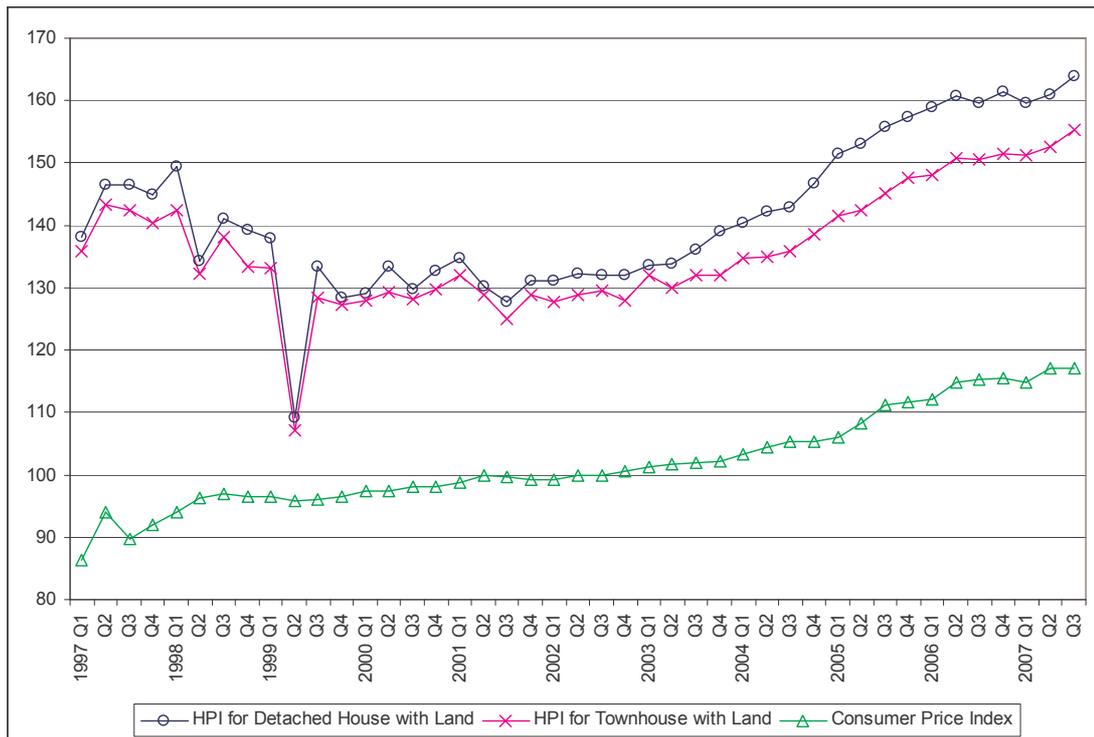
<sup>2</sup> Estimated by Real Estate Information Center.

### 2.2.3 Housing price

Real Estate Information Center, Government Housing Bank began compiling a housing price index in the second quarter of 2006. Bank of Thailand constructed the methodology and had compiled a housing price index since 2003, using 1991 as the base year. Raw data for the index is from Government Housing Bank collateral database, which constitutes the majority of middle and low income housing loans in Thailand. The index therefore represents housing price level changes of middle to low income home purchasers. Also, note that the database only includes Bangkok and surrounding provinces (Nonthaburi, Patumthani, and Samutprakan) and only focuses on detached houses and townhouses. Currently,

Government Housing Bank does not have enough data to construct the price index for condominiums.

FIGURE 2.8  
Housing price index and CPI



Source: 1) Government Housing Bank Collateral Database 2) Real Estate Information Center 3) Bank of Thailand.

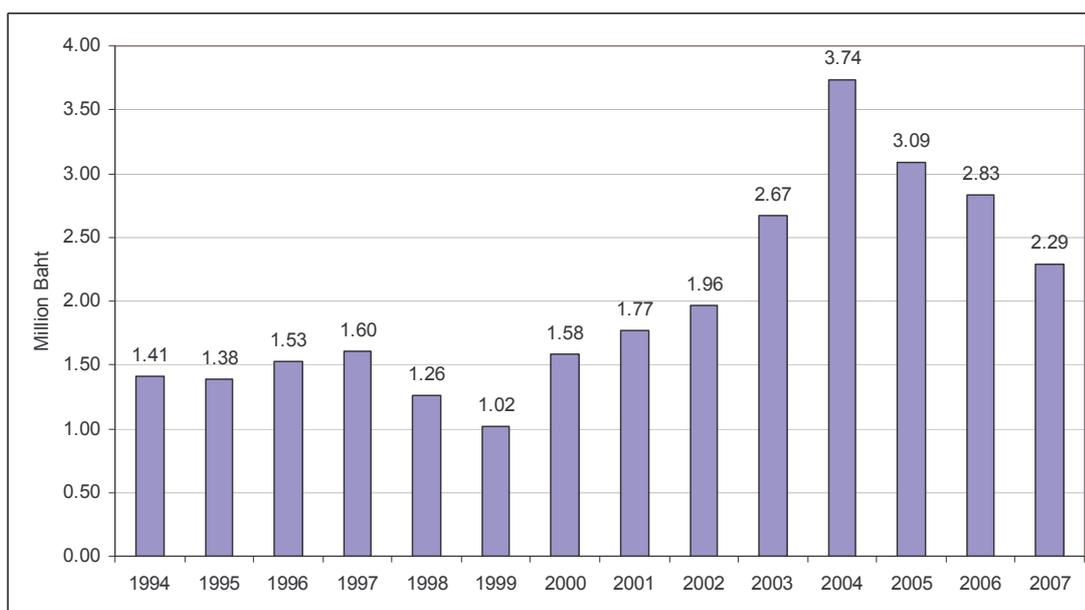
Remark: Housing Price Index represents medium-to-low price houses with 1991 as base year (HPI = 100 in 1991), whereas the base year for CPI is 2002 (CPI = 100 in 2002).

Figure 2.8 shows that the housing price was in a declining trend from 1997 to 1999, following the 1997 financial crisis in Thailand. In 2000, the housing price index started to rise in line with CPI. The housing price index for detached houses rose faster than the index for townhouses. The base year for housing price index for medium-to-low price houses is 1991, whereas the base year for CPI is 2002.

According to Agency for Real Estate Affairs, the average selling price of housing in Bangkok and vicinities in 2007 was around 2.29 million Baht per unit, decreasing from 2.83 million Baht per unit in 2006, as shown in Figure 2.9. This

shows a trend of developers to focus more on lower-price segments of the housing market, which is in line with lower purchasing power of households and ability to get financing from banks due to changes in interest rates and oil prices.

FIGURE 2.9:  
Average selling price of housing in Bangkok and vicinities



Source: Agency for Real Estate Affairs.

#### 2.2.4 Loans related to housing market

As shown in Table 2.12, the total outstanding loans in 2007 was around 178,994 million Baht, falling from 183,864 million Baht in 2006. New loans in 2006 amounted to 29,404 million Baht as shown in Table 2.11.

TABLE 2.11  
New loans to housing developers categorized by types of residential unit  
in 2004 to 2007

(Million Baht)

Year	Land and house (with land)	Commercial building construction	Condominium/flat construction	Total
2004	31,642	4,009	10,495	46,146
2005	18,426	2,884	7,277	28,587
2006	20,762	1,995	6,647	29,404
2007	19,251	1,798	10,399	31,448

Source: Bank of Thailand.

Compiled by: Real Estate Information Center.

Data about loans for developers in Table 2.11 and 2.12 were collected from commercial banks, finance companies and credit fonciers, excluding GHB and other SFIs (Special Financial Institutions).

TABLE 2.12  
Outstanding loans to housing developers categorized by types of Residential unit  
in 2003 to 2007

(Million Baht)

Year	Land Subdivision	House with Land Subdivision	Commercial Building Construction	Condominium/flat Construction	Total
2003	2,186	72,301	25,263	50,829	150,579
2004	2,145	117,870	15,276	58,548	193,839
2005	1,993	109,783	14,147	68,605	194,528
2006	4,973	119,611	9,843	49,437	183,864
2007	5,145	116,150	9,257	48,442	178,994

Source: Bank of Thailand.

Compiled by: Real Estate Information Center.

TABLE 2.13  
New mortgage loans to individuals in 1994 to 2007

Year	Value in Million Baht
1994	209,811
1995	223,408
1996	241,172
1997	202,720
1998	103,733
1999	64,301
2000	108,886
2001	115,352
2002	168,314
2003	296,661
2004	294,403
2005	279,392
2006	262,993
2007p	270,466

Source: 1) Bank of Thailand 2) Government Housing Bank  
3) Government Saving Bank 4) National Housing Authority.  
Compiled by: Real Estate Information Center.

Remark: p means the data from life insurance companies is preliminary.

From 2004 to 2006, new mortgages<sup>10</sup> to individuals declined every year to 262,993 million Baht in 2006, as shown in Table 2.13. In 2007, it is expected to be 270,466 million Baht. The data for mortgages were collected from commercial banks, finance companies and credit fonciers, GHB, Government Saving Bank, insurance companies and National Housing Authority. Table 2.14 shows the outstanding mortgage loans to individuals in each year from 1994 to 2007. For the past three years, the growth of outstanding mortgage loans to individuals has continued at a steady trend.

<sup>10</sup> These are loans given to individuals for purchase and construction of housing units.

TABLE 2.14  
Outstanding mortgage loans to individuals in 1994 to 2007

Year	Value in Million Baht
1994	443,899
1995	575,211
1996	708,633
1997	793,521
1998	769,379
1999	712,402
2000	688,544
2001	687,458
2002	763,665
2003	888,472
2004	1,032,101
2005	1,215,634
2006	1,346,622
2007p	1,479,903

Source: 1) Bank of Thailand 2) Government Housing Bank  
3) Government Saving Bank 4) National Housing Authority.

Compiled by: Real Estate Information Center.

Remark: p means the data from life insurance companies is preliminary.