Table I

Definitions, notation and the expected sign of the explanatory variables of model on bank profitability

		Variable	Measure	Notation	Expected sign
Dependent variable		Profitability	Return after tax/asset (%)	ROA	
Determinants	Bank-characteristic	Size	ln (assets)	LNSIZE	+
		Capital	Equity / assets	EA	+
		Credit risk	Loan loss provisions / loans	PL	-
		Operating management	Operating cost / assets	COSASS	-
	Macroeconomic	Economic growth	GDP growth (%)	GDP	+
		Inflation rate	Change in CPI (%)	INF	+ / -
	Financial structure	Stock market development	Stock market capitalization / nominal GDP	MACGDP	+ / -
			Asset size of Thai commercial banks / nominal GDP	ASSGDP	-
			Stock market capitalization / asset size of Thai commercial banks	MACPASS	+ / -
		Concentration	Herfindahl-Hirschman index	HHI	+

Table II

Descriptive statistics

10 Thai commercial banks

Variable	ROA	LNSIZE	EA	PL	COSASS	GDP	INF	MACGDP	ASSGDP	MACPASS	HHI
Unit :	(%)	(million baht)	(time)	(%)	(%)	(%)	(%)	(time)	(time)	(time)	-
Mean	-0.269	12.956	0.064	8.701	0.655	2.979	3.076	1.892	4.191	0.469	0.132
Median	0.100	13.082	0.066	6.749	0.559	4.509	2.453	1.703	4.181	0.384	0.134
Maximum	12.810	14.268	0.134	41.908	4.785	8.414	10.363	3.159	5.058	0.862	0.141
Minimum	-12.422	10.980	-0.188	1.110	0.245	-13.923	-0.928	0.808	3.371	0.167	0.119
Std. Dev.	1.534	0.878	0.030	6.899	0.397	5.069	2.503	0.735	0.395	0.217	0.006
Observations	440	440	440	440	440	440	440	440	440	440	440

Group	7 private-ownership banks					3 government-ownership banks				
Variable	ROA	LNSIZE	EA	PL	COSASS	ROA	LNSIZE	EA	PL	COSASS
Unit :	(%)	(million baht)	(time)	(%)	(%)	(%)	(million baht)	(time)	(%)	(%)
Mean	-0.193	12.963	0.069	7.299	0.699	-0.447	12.939	0.053	11.972	0.634
Median	0.129	13.323	0.070	6.509	0.603	0.044	12.922	0.062	7.301	0.557
Maximum	6.692	14.268	0.129	20.784	2.854	12.810	14.046	0.134	41.908	1.980
Minimum	-6.579	10.981	-0.059	1.110	0.317	-12.422	10.980	-0.188	1.319	0.295
Std. Dev.	1.078	0.921	0.026	4.127	0.323	2.263	0.774	0.035	10.208	0.241
Observations	308	308	308	308	308	132	132	132	132	132

Thai commercial banks are comprising of BBL, KTB, SCB, KBANK, BAY, TMB, SCIB, SCBT,UOB, and BT
Private-ownership banks comprising of BBL, SCB, KBANK, BAY, TMB, SCBT, and UOB
Government-ownership banks comprising of KTB, SCIB, and BT

Table III

Correlation matrix of independent variables

	LNSIZE	EA	PL	COSASS	GDP	INF	MACGDP	ASSGDP	MACPASS	HHI
LNSIZE	1.000									
EA	0.243	1.000								
PL	-0.112	-0.226	1.000							
COSASS	-0.322	-0.182	-0.009	1.000						
GDP	0.107	0.193	0.118	-0.135	1.000					
INF	-0.033	0.055	-0.235	0.145	-0.730	1.000				
MACGDP	0.158	0.423	-0.081	0.037	0.555	-0.086	1.000			
ASSGDP	-0.154	-0.390	0.203	-0.005	-0.498	-0.022	-0.796	1.000		
MACPASS	0.164	0.432	-0.111	0.042	0.531	-0.041	0.991	-0.859	1.000	
HHI	-0.169	-0.303	0.140	-0.043	-0.397	0.127	-0.549	0.600	-0.587	1.000

Table IV

Determinants of Thai commercial banks' ROA : Fixed effect

Regression	(1)		(2)		(3)		(4)	
	Individual banks		Macroeconomic		Financial structure		Financial structure	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Constant	-4.28	-1.270	1.077	0.314	-1.463	-0.285	2.116	0.403
LNSIZE	0.341	1.299	-0.079	-0.294	0.055	0.173	0.015	0.048
EA	14.559***	5.611	13.180***	5.032	13.757***	5.030	14.046***	5.180
PL	-0.033***	-3.121	-0.042***	-3.951	-0.044***	-4.006	-0.036***	-3.268
COSASS	-1.616***	-9.054	-1.593***	-9.068	-1.534***	-8.036	-1.509***	-7.997
GDP			0.072***	3.727	0.084***	3.313	0.058***	2.113
INF			0.008	0.211	0.021	0.488	-0.027	-0.594
MACGDP							-0.346**	-2.301
ASSGDP							-0.876***	-2.944
MACPASS					-0.281	-0.579		
HHI					6.061	0.439	15.587	1.118
Nb. Observations	440		440		440		440	
Adj R^2	0.334		0.356		0.354		0.367	
Redundant Fixed Effects Tests								
Cross-section F	3.049		2.777		2.753		2.645	
Prob. F	0.002		0.004		0.004		0.006	
Chi-square	27.470		25.200		25.106		24.203	
Prob. Chi-square	0.001		0.003		0.003		0.004	

*,** and *** indicate significant levels of 10, 5 and 1 percent respectively.

Table V

Fixed effect and Random effect estimation and specification tests : comparison model (3)

	Fixed effect		Random effect	
	Coefficient	t-Statistic	Coefficient	t-Statistic
Constant	-1.463	-0.285	0.249	0.119
LNSIZE	0.055	0.173	-0.075	-1.025
EA	13.757***	5.030	14.346***	6.231
PL	-0.044***	-4.006	-0.036***	-4.008
COSASS	-1.534***	-8.036	-1.290***	-7.867
GDP	0.084***	3.313	0.088***	3.483
INF	0.021	0.488	0.025	0.582
MACPASS	-0.281	-0.579	-0.307	-0.666
HHI	6.061	0.439	3.779	0.299
Nb. Observations	440		440	
Adj R2	0.354		0.330	
		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Hausman test		29.27	8	0.0003

*,** and *** indicate significant levels of 10, 5 and 1 percent respectively.

Table VI

Regression result of fixed effect model (3) for private-owned and government-owned banks

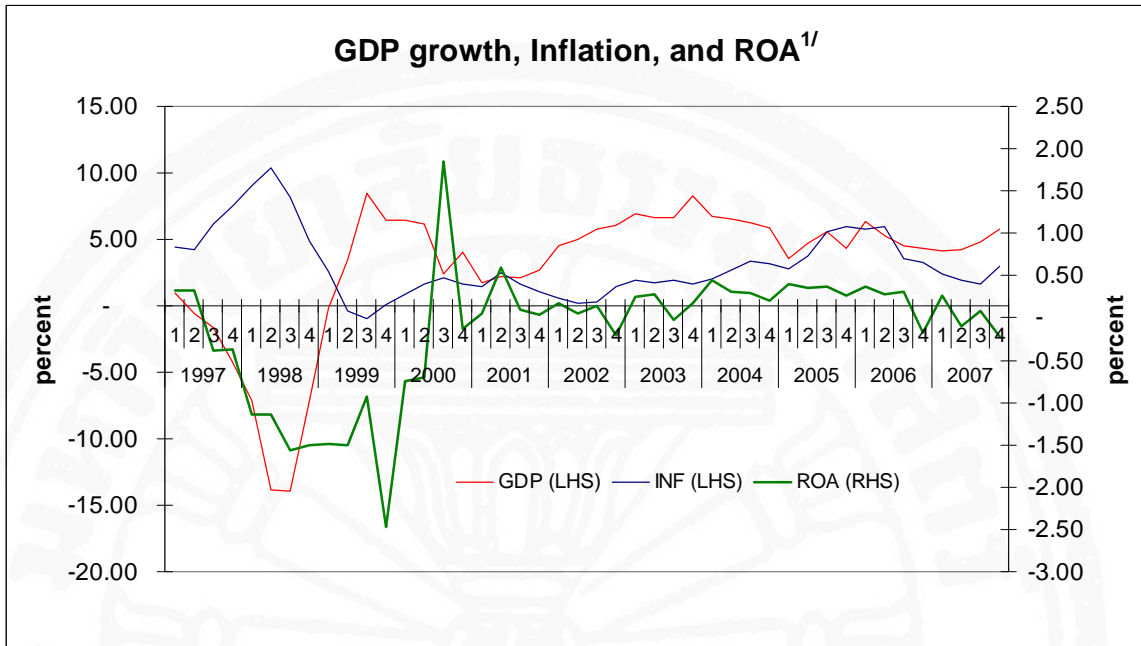|	All banks in sample [1]		Private-ownership [2]		Government-ownership [3]	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
Constant	-1.463	-0.285	4.428	0.779	-9.507	-0.825
LNSIZE	0.055	0.173	-0.509	-1.435	0.852	1.168
EA	13.757***	5.030	7.985***	2.629	21.122***	3.572
PL	-0.044***	-4.006	-0.059***	-3.775	-0.049**	-2.152
COSASS	-1.534***	-8.036	-1.479***	-7.155	0.327	0.378
GDP	0.084***	3.313	0.064***	2.868	0.130*	1.802
INF	0.021	0.488	0.052	1.365	-0.063	-0.515
MACPASS	-0.281	-0.579	1.00**	2.028	-2.108	-1.560
HHI	6.061	0.439	15.636	1.187	-14.525	-0.398
Nb. Observations	440		308		132	
Adj R2	0.354		0.310		0.307	
Redundant Fixed Effects Tests						
Cross-section F	2.753		6.374		0.911	
Prob. F	0.004		0.000		0.405	
Chi-square	25.106		37.787		1.972	
Prob. Chi-square	0.003		0.000		0.373	

*,** and *** indicate significant levels of 10, 5 and 1 percent respectively.

[1] BBL, KTB, SCB, KBANK, BAY, TMB, SCIB, SCBT,UOB, and BT

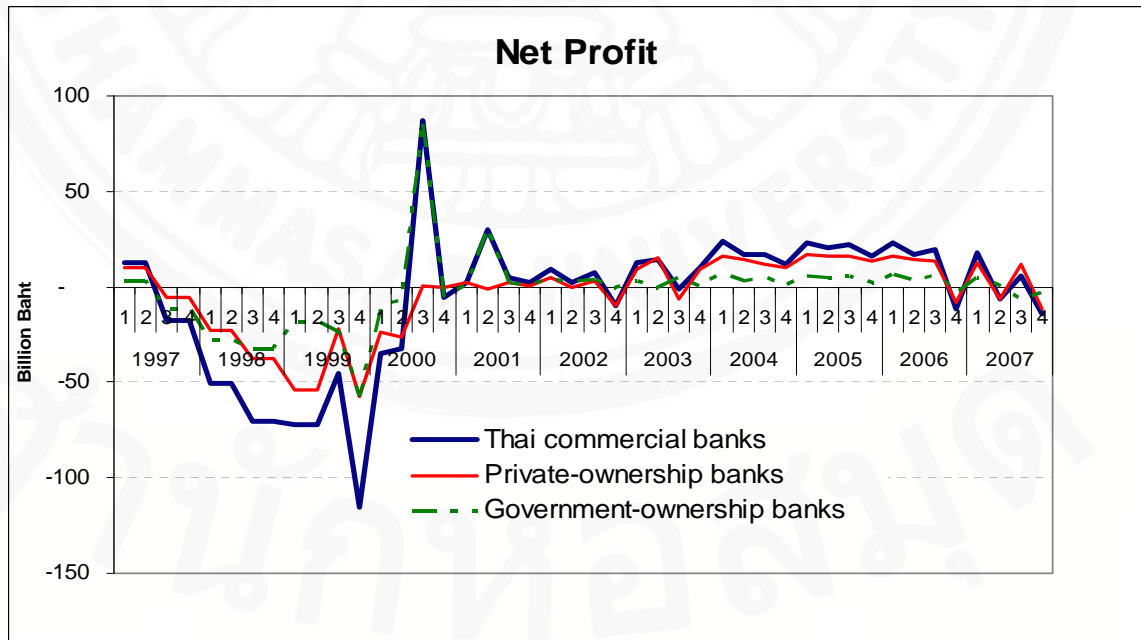[2] BBL, SCB, KBANK, BAY, TMB, SCBT, and UOB

[3] KTB, SCIB, and BT

Figure I

GDP growth , Inflation and Return on assets (ROA) and Net Profit of

Thai commercial banks

Source : National Economic and Social Development Board, Ministry of Commerce, and Bank of Thailand.

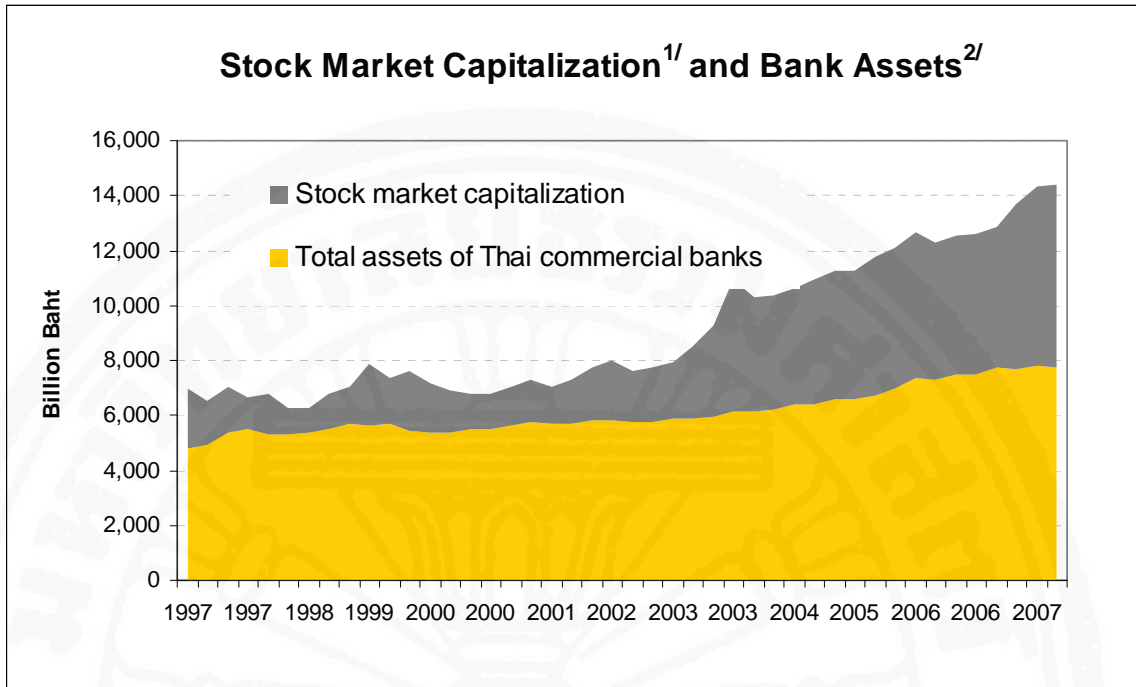[1] ROA is calculated by the return after taxes divided by total assets of Thai commercial banks
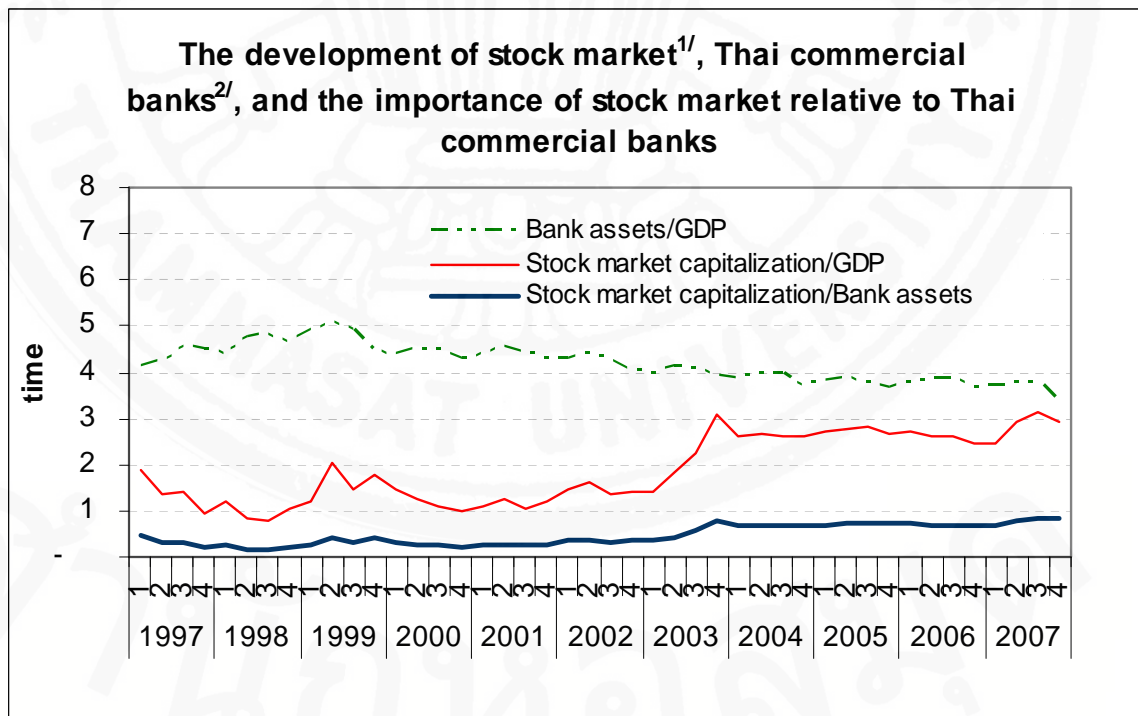

Source : Bank of Thailand

Thai commercial banks are comprising of BBL, KTB, SCB, KBANK, BAY, TMB, SCIB, SCBT,UOB, and BT
Private-ownership banks comprising of BBL, SCB, KBANK, BAY, TMB, SCBT, and UOB
Government-ownership banks comprising of KTB, SCIB, and BT

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Figure II

The development and importance of stock market comparing to all Thai commercial banks

Stock Market Capitalization[1] and Bank Assets[2]

Legend:
- Stock market capitalization
- Total assets of Thai commercial banks

Y-axis: Billion Baht (0 to 16,000)
X-axis: 1997 1997 1998 1999 2000 2000 2001 2002 2003 2003 2004 2005 2006 2006 2007

Source :SETSMART, MAI, and Bank of Thailand.

The development of stock market[1], Thai commercial banks[2], and the importance of stock market relative to Thai commercial banks

Legend:
- Bank assets/GDP
- Stock market capitalization/GDP
- Stock market capitalization/Bank assets

Y-axis: time (0 to 8)
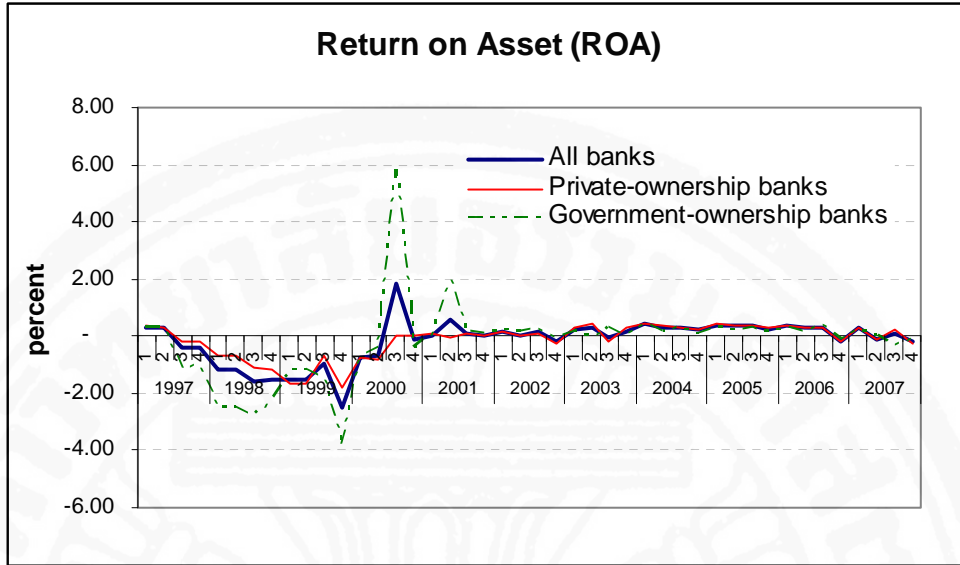X-axis: 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Source : SETSMART, MAI, and Bank of Thailand (author's calculation).

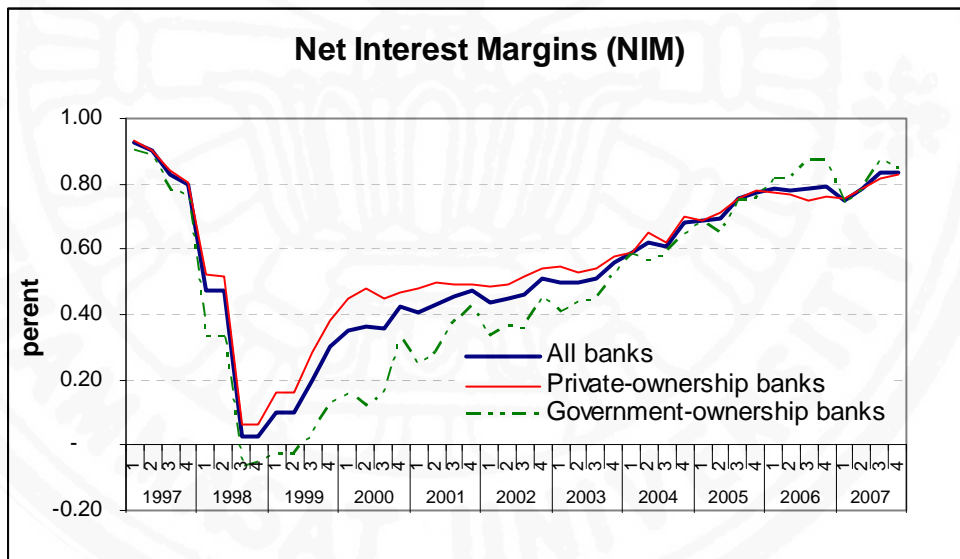1/ Stock market capitalization is sum of stock market capitalization of SET and MAI.
2/ Bank assets is the sum of assets of all Thai commercial banks including closed banks (DBS, UOBR, and BMB) and new banks (TBANK, TISCO, KK, and ACL).

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Figure III

Return on assets (ROA) and Net interest margins (NIM) classified by ownership

Return on Asset (ROA)

Legend:
- All banks
- Private-ownership banks
- Government-ownership banks

Source : Bank of Thailand (author's calculation)

Net Interest Margins (NIM)

Legend:
- All banks
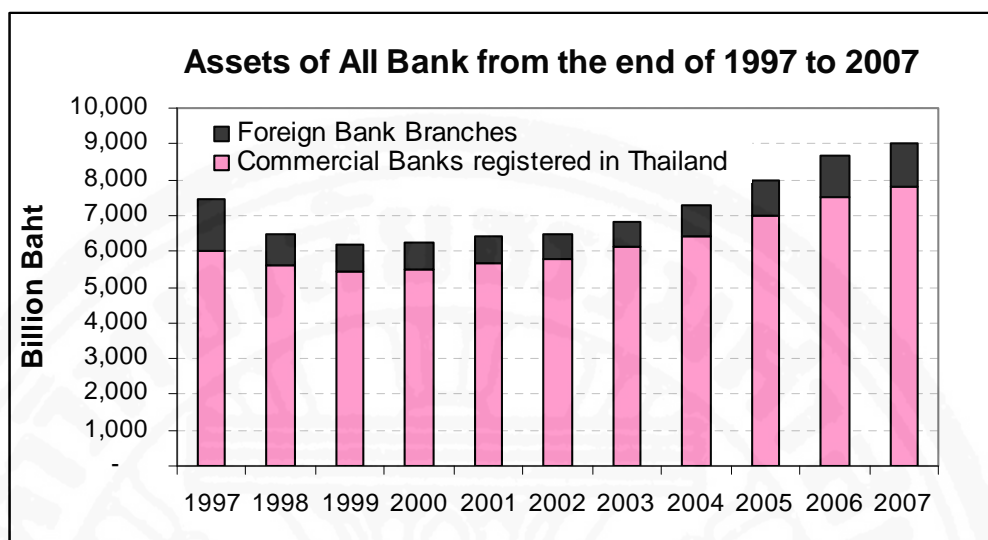- Private-ownership banks
- Government-ownership banks

Source : Bank of Thailand (author's calculation)

Thai commercial banks are comprising of BBL, KTB, SCB, KBANK, BAY, TMB, SCIB, SCBT,UOB, and BT

Private-ownership banks comprising of BBL, SCB, KBANK, BAY, TMB, SCBT, and UOB

Government-ownership banks comprising of KTB, SCIB, and BT

<p align="center">Figure IV</p>

<p align="center">Assets of all banks in Thai Banking System</p>

Assets of All Bank from the end of 1997 to 2007

Source : Bank of Thailand

<p align="center">Appendix B</p>

List of all banks as of the end of 2007

Thai Banking System (34)

1. Commercial banks registered in Thailand (18)

1.1 Thai commercial banks (14)

(i) Private-ownership banks (11)

- ACL Bank

- Bangkok Bank

- Bank of Ayudhya

- Kasikornbank

- Kiatnakin Bank

- Thanachart Bank

- Thai Military Bank

- Tisco Bank

- Siam Commercial Bank

- Standard Chartered Bank (Thai)

<p align="center">31</p>

- United Overseas Bank (Thai)

(ii) Government-ownership banks (3)

- BankThai
- Krung Thai Bank
- Siam City Bank

1.2 Retail banks (3)

- AIG Retail Bank
- Land and House Retail Bank
- Thai Credit Retail Bank

1.3 Subsidiary (1)

- Mega International Commercial Bank

2. Foreign banks (full branches) (16)

- ABN Amro N.V.
- Bank of America, National Association
- Bank of China
- Sumitomo Mitsui Banking Corporation
- Bank of Tokyo-Mitsubishi UFJ
- BNP Paribas
- Calyon
- Citybank, N.A.
- Deutsche Bank AG.
- Hongkong and Shanghai Banking Corporation
- Indian Overseas Bank, Bangkok Branch
- JP Morgan Chase Bank, N.A.
- Mizuho Corporate Bank
- Oversea Chinese Banking Corporation
- RHB Bank Berhad
- Societe Generale