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#### CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH

# THE FINANCIAL SYSTEM AND FINANCIAL POLICY IN TAIWAN —— LESSONS FOR DEVELOPING COUNTRIES

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# The Financial System and Financial Policy in Taiwan

—— Lesson for Developing Countries

by

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#### I. Introduction

For developing countries, the economic development experience of the Republic of China in Taiwan deserves attention. Taiwan's economy has generally been regarded as miraculous and spectacular. The performance in terms of economic growth, price stability, and distributive equity over the past three or four decades can be referred to as a model for developing countries.

In the economic development process, financial sector plays as the channel between savings and investment. A healthy and sound financial system can positively help the economic growth and industrial development. The financial system in Taiwan includes formal and informal financial market. The formal financial market is composed of monetary institutions, other financial institutions, money market, and capital market. The informal financial market include various underground activities. Each financial sector has provided some funds to the businesses to some extent. Under the consideration of financial stability, the government has adopted some regulation on the financial system. Therefore, the contribution of financial system to the development seems not to achieve its highest efficiency.

The price stability in Taiwan can be attributed to the financial policies. Financial policies, in a broad definition, can be defined to include the following aspects. Their relationship with one another is illustrated in Figure 1.

## (1) Policies for Financial System Development — Regulation and Liberalization:

The Ministry of Finance regulates and controls the development and operation of financial institutions. This policy leads to differing structures

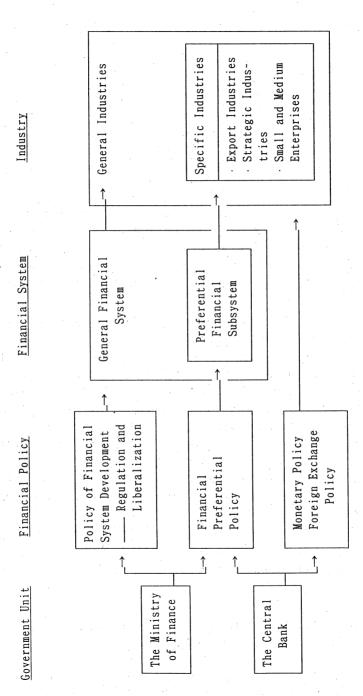


Figure 1 Financial Poicy and Industry Development

for the financial system in different stages of economic development.

#### (2) Financial Preferential Policies

In order to stimulate the growth of specific industries, such as export industries, small- and medium-sized businesses or strategic industries, the government established some financial measures to achieve these goals, including preferential financial subsystems. Selective credit controls are adopted temporarily as well.

#### (3) Monetary Policy

Monetary policy is controlled by the central bank. This policy influences the overall monetary environment of the whole economy. The money supply influences the price level, and, as a result, economic growth.

#### (4) Foreign Exchange Policy

Foreign exchange policy has a strong impact on trade sectors. Adjustment of the foreign exchange rate and the operation of foreign exchange market play a key role in trade sectors.

In this paper, an overview of financial system, including the relationship between financial sector and industrial sector, is shown in Section II. Then, various financial policies are discussed in Section III. Finally, conclusion is derived as lessons for developing countries.

### II. Overview of the Financial System

The financial system acts as a channel for saving and investment, and capital funds can be considered the lubricant of economic activities. In other words, domestic savings are funneled through financial intermediaries to be used for investments. Taiwan has a very high savings level, and these savings can be used to increase investments, then export, and accordingly promotes economic growth.

Before the 1970s, savings were not sufficient to meet the demand for domestic investment. After the 1970s, savings accumulated quickly, and

excess savings have persisted. This phenomena can be observed from Table 1. The share of gross domestic savings to GNP rose from 14.91% in 1951-60 to 33.26% in 1981-90. On the other hand, the share of investments to GNP rose slowly from 16.08% in 1951-60 to 22.35% in 1981-90. Investments were greater than savings before the 1970s, and less than savings after the 1970s. The excess investment ratio was -1.17% in 1951-60, -0.80% in 1961-70. After the 1970s it became positive. The excess savings ratio rose to 10.88% in 1981-90.

At the beginning stage of economic development, capital insufficiency was a problem which needed to be solved. Negative excess savings ratios before the 1970s reveals that most investments could not be accommodated by domestic savings. Therefore, the government adopted measures to stimulate investment. Then, after the 1980s, most savings are not effectively used for investment. This shows that the function of financial system as the channel between savings and investments are not fully achieved, and the efficiency of the financial system needs to be improved. In addition, financial liberalization and financial internationalization have become an overall trend.

Enterprises are the financial deficit sector, i.e., the sector in which investments are higher than savings. Households are a financial surplus sector, with higher savings than investments. The government sector has retained a budget surplus most of the time.

Since the household sector possesses a financial surplus, the use of household savings should be observed. Savings are led into investments through financial system. The financial system in Taiwan can be represented by Figure 2. This system can be called the "dual financial system", which means the coexistence of a formal (organized, regulated) financial system and an informal (unorganized, unregulated) financial system.

The existence of a dual financial system has a historical background. The formal financial system has always been subject to strict control, and, except a few private banks established by overseas Chinese or which were transformed for specific political reasons<sup>1</sup>, banks were regulated by being

<sup>&</sup>lt;sup>1</sup> E.g. the International Commercial Bank of China was created from the Bank of China after Mainland China took the seat formerly held by Taiwan in the United Nations in 1971.

Table 1 Domestic Savings and Investments

In Million of NT dollars, %

	National	Savings	Domestic	Investment	Excess Savings		
Year	Invest- ment over ten years	Average Share of GNP	Invest- ment over ten years	Average Share of GNP	Invest- ment over ten years	Average Share of GNP	
1951   1960	5712.7	14.91	5737.2	16.08	-564.5	-1.17	
1961   1970	28941.8	21.07	29964.8	21.87	-1025.7	-0.80	
1971     1980	236416.7	31.85	229014.8	30.48	7404.6	1.38	
1981	957591.7	33.23	628907.2	22.35	328614.3	10.88	
1991 1992	1419976 1485458	29.45 28.02	1071802 1258491	22.23 23.74	348174 226967	7.22 4.28	

Source: <u>National Income of the Republic of China</u>, Directorate-General of Budget, Accounting & Statistics, Executive Yuan.

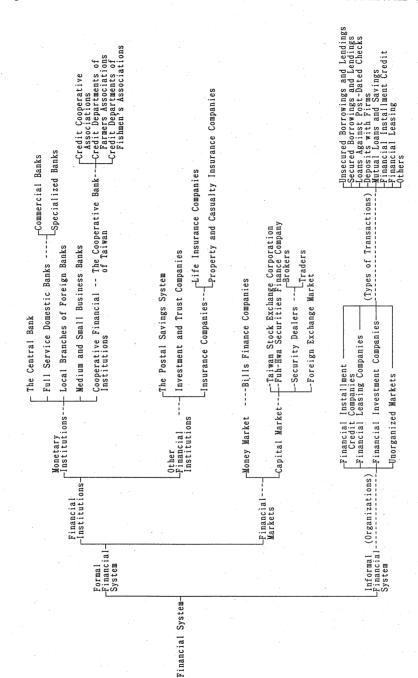


Figure 2 The Financial System in Taiwan

government-owned. Bank interest rates were controlled by the Central Bank and official interest rates usually adjusted more slowly than the market-determined rate through demand and supply. These regulations were maintained for decades until 1989, when a new Banking Law was promulgated and bank privatization and interest rate liberalization were adopted. The long-regulated banking system could not meet the market demand for funds. Government banks tend to operate conservatively. Those firms which can afford to present collateral more easily obtain bank loans. Usually big firms have more easily availability to credit compared to small- and medium-sized businesses, who have difficulty obtaining funds from government commercial banks. Those businesses have to pursue underground capital, and an informal financial market has grown accordingly. As a result, formal and informal financial markets coexist. This is a major characteristic of Taiwan's financial market.

The formal financial system is composed of two subsystems: one is financial institutions, the other is financial markets. Financial institutions include two groups, namely the monetary institutions which create credit money, and other financial institutions which cannot.

The first group of financial institutions includes the Central Bank of China (CBC), commercial banks (domestic banks and local branches of foreign banks), specialized banks, and cooperatives (credit cooperative associations, credit departments of farmers' associations, and credit departments of fishermen's associations). Specialized banks include the Export-Import Bank of China (trade financing activities), Bank of Communication (key industry financing activities), the Farmers Bank of China (farm financing activities), Land Bank of Finance (real estate financing activities), the Cooperative Bank of Taiwan (cooperative-related financing activities), and the Central Trust of China (dealing with government-purchase-related financing activities).

Other financial institutions cannot create money, but they can mobilize idle money to finance investments. They are the postal savings system, investment and trust companies, and insurance companies.

Financial markets include the money market and the capital market. Broadly speaking, the foreign exchange market can also be included. The money market is the short-run fund market. Financial instruments in the money market include treasury bills, commercial paper, bankers' acceptances and negotiable certificates of deposits. These instruments are usually exchanged in the three local bills finance companies. The central

bank often enters this market to execute open-market operations for the purpose of controlling the money supply.

The capital market is a place for long-term bill transactions. Financial instruments in the capital market include stocks, government bonds, corporate bonds and bank debentures. The stock market grew dramatically in the 1980s. The Taiwan Stock Exchange Corporation is the exchange center, and Fuh-Hwa Securities Finance Companies deal with finance behavior for funds and securities.

The operation of foreign exchange activities is executed by the central bank and authorized foreign exchange banks. The authorized banks are where foreign exchange transactions take place, and include some major domestic banks plus local branches of foreign banks.

The informal financial markets include all the financial activities which are not approved by the Ministry of Finance. Financial installment credit companies, financial leasing companies and financial investment companies are registered companies under the Ministry of Economic Affairs. However, they operate their activities as financial institutions. Any activities of financial intermediation by a business not approved by the Ministry of Finance is illegal. Therefore, these companies are classified as informal financial markets. There are many kinds of transactions in this market. Unsecured borrowings and lendings, secured borrowings and lendings, and loans against post-dated checks are popular informal financial activities. "Deposits-with-firms" means that some businesses collect funds from their employees, even from the general public. "Mutual-loans-and-savings" is commonly used as a way to pool savings of relatives and friends.

Given the above structure of the financial system, there are four kinds of financial sources for the business sector: financial institutions, the money market, the capital market, and the curb market. Table 2 shows the shares of these financial sources from 1964 to 1991. The money market was not appeared until 1976. It shows that financial institutions are the most important financial source, which on average from 1976 to 1991 is 54.97% of total financial sources for businesses. The curb market is the second biggest financial source for firms, which is 24.11% of total financial sources. The capital market provide only 13.94% of financial sources for firms. The money market provided only averagely 6.98% since it was established. In other words, the level of direct finance is rather small and the market has not been popular. The indirect finance market

Table 2 The Financial Sources for the Business Sector

Unit: NT\$ Million, %

End	Financial In	stitution	Money 1	larket	Capital 1	Market	Curb	Market	Total
of Year	Amount	%	Amount	%	Amount	%	Amount	%	Amount
1964	13,708	47.81%			7,410	25.84%	7,555	26.35%	28,673
1965	16,940	48.33%			9,190	26.22%	8,922	25.45%	35,052
1966	20,889	50.40%		1.	8,180	19.74%	12,377	29.86%	41,446
1967	30,250	61.24%			5,930	12.01%	13,213	26.75%	49,393
1968	37,021	61.12%			7,450	12.30%	16,102	26.58%	60,573
1969	40,267	60.18%			8,150	12.18%	18,490	27.64%	66,907
1970	48,886	61.04%			8,930	11.15%	22,267	27.80%	80,083
1971	75,837	62.98%			9,100	7.56%	35,468	29.46%	120,405
1972	95,138	67.20%			10,590	7.48%	35,842	25.32%	141,570
1973	127,716	65.30%		_	16,843	8.61%	51,034	26.09%	195,593
1974	175.311	67.83%			24,964	9.66%	58,188	22.51%	258,463
1975	217,673	66.64%			32,797	10.04%	76,191	23.32%	326,661
1976	252,236	64.48%	2,207	0.56%	48,714	12.45%	88,050	22.51%	391,207
1977	277,295	59.34%	9,949	2,13%	63,085	13.50%	116,976	25.03%	467,305
1978	342,513	57.40%	17,373	2.91%	81,166	13.60%	155,707	26.09%	596,759
1979	428,490	55.90%	46,687	6.09%	104,789	13.67%	186,596	24.34%	766,562
1980	573,574	53.51%	65,464	6.11%	131,867	12.30%	301,078	28.09%	1,071,983
1981	637,621	53.67%	109,769	9.24%	158,080	13.31%	282,576	23.78%	1,188,046
1982	755,500	54.47%	133,288	9.61%	186,622	13.45%	311,601	22.47%	1,387,011
1983	821,159	54.14%	159,425	10.51%	201,999	13.32%	334,103	22.03%	1,516,686
1984	852,272	51.60%	195,908	11.86%	232,801	14.09%	370,819	22.45%	1,651,800
1985	866,343	47.81%	195,423	10.79%	252,536	13.94%	497,613	27.46%	1,811,915
1986	989,694	47.88%	154,510	7.47%	287,471	13.91%	635,558	30.74%	2,067,233
1987	1,185,375	50.60%	138,066	5.89%	338,976	14.47%	680,352	29.04%	2,342,769
1988	1,458,643	55.89%	129,308	4.95%	395,663	15.16%	626,114	23.99%	2,609,728
1989	1,438,043	57.81%	191,768	6.08%	466,729	14.81%	671,103	21.29%	3,151,709
1990	2,103,235	56.89%	347,112	9.39%	558,025	15.09%	688,663	18.63%	3,697,035
1990	2,103,233	58.07%	344,554	8.08%	680,825	15.97%	762,497	17.88%	4,263,865
Avg.of 1976~ 1991	990,128	54.97%	140,051	6.98%	261,834	13.94%	419,338	24.11%	1,811,35

Source: Data are arranged from <u>Flow of Funds in Taiwan District, R.O.C.</u>, and <u>Financial Statistics Monthly</u>
The Central Bank of China.

is comparatively larger, and has provided most of the funds.

Table 3 shows the relative assets of various financial institutions. Taking 1993 as an example, in terms of assets, the central bank processes about 15% of total financial institutions. Depository institutions have 67.99%. Among depository institutions, domestic banks have the largest sector, being 44.07%. Other financial institutions have lower market shares. The market shares of assets for other financial institutions in 1993 can be ranked in descending order as follows: postal savings system, life insurance companies, investment and trust companies, property and casualty insurance companies, securities finance companies, and the smallest, bills finance companies. The postal savings system grew swiftly after the 1970s because the system provided convenience due to the widespread nature of its service units.

The number of units for each type of financial institution can be observed in Table 4. In 1991, there are 17 domestic banks, with 773 branches. Each domestic bank is allowed to open a maximum of three branches every year. A new bank can open only five branches when established. Foreign banks were allowed to open only one branch until 1987. Credit cooperatives and credit departments of farmers' and fishermen's associations have more units and more branches, but most of them are small, so that their market share of assets is comparatively low. What deserves mention is that the number of branches in the postal savings system has been the largest. However, the number of domestic banks rises sharply to 34 banks, because banking privatization was allowed since 1989 when new Banking Law was promulgated.

The market share of loans and deposits can be seen in Table 5. In 1991, domestic banks had 44.45% of total deposits, and 63.45% of total loans. Obviously, domestic banks have composed the major portion of Taiwan's financial system. If we include local branches of foreign banks and medium business banks in this classification, then the market share for banks increases. Other financial institutions, although they provide different services and have grown quickly in terms of number of branches, each have less than 10% of the market share.

The foreign exchange market is the place where the foreign reserve exchanges are transacted. The central bank and the foreign exchange-authorized banks exchange foreign reserves mutually. Foreign exchange authorized banks include domestic banks and local branches of foreign banks. In 1992, there were 55 authorized foreign exchange banks,

Table 3 Total Assets of Financial Institutions in Taiwan Units: NT\$ Million, %

Items		Total	Assets	·
(End of Year) Institutions	1981	1986	1991	1993
Central Bank	523,199 (21.67)	1,749,414 (27.73)	2,253,616 (18.46)	2,641,884 (14.87)
Depository Institutions	1,138,614	2,596,284	5,830,846	7,828,474
1. Domestic Banks	(47.17)	(41.16)	(42.66)	(44.07)
2. Local Branches of	120,253	142,449	293,098	370,117
Foreign Banks	( 4.98)	( 2.26)	( 2.14)	( 2.08)
3. Medium Business Banks	78,610	250,337	847,609	1,196,629
	(3.26)	(3.97)	( 6.20)	(6.74)
4. Credit Cooperatives	136,619	336,470	1,030,168	1,556,681
	( 5.65)	(5.33)	(7.54)	(8.76)
5. Credit Department of Farmers' and Fishermen's Associations	105,926	328,598	775,889	1,124,925
	( 4.39)	(5.21)	(5.68)	(6.33)
Subtotal	1,580,022	3,654,138	8,777,610	12,076,826
	(65.46)	(57.93)	(64.22)	(67.99)
Other Financial Institutions 1. Investment and Trust Companies	81,513 ( 3.38)	118,838 ( 1.88)	523,640 ( 3.83)	443,557 ( 2.50)
2. Postal Savings Systems	182,812	738,173	1,274,640	1,714,125
	( 7.57)	(11.70)	(9.33)	( 9.65)
3. Life Insurance Compa-	29,765	18,904	448,638	699,479
nies	(1.23)	(0.30)	(3.28)	( 3.94)
4. Property and Casualty	9,221	16,710	36,643	56,029
Insurance Companies	( 0.38)	(0.26)	(0.27)	( 0.32)
5. Bills Finance Companies	5,110	7,511	34,702	44,008
	( 0.21)	( 0.12)	(0.25)	(0.25)
6. Securities Finance	2,350	4,577	48,843	86,070
Copmaines	( 0.10)	( 0.07)	( 0.36)	( 0.48)
Subtotal	310,771	904,713	2,367,106	3,043,268
	(12.87)	(14.34)	(17.32)	(17.13)
Total	2,413,992 (100.0)	6,308,265 (100.0)	13,668,332 (100.0)	

Source: The Central Bank of China, Financial Statistics Monthly, Various Issues.

Table 4 Number of Units of Financial Institutions in Taiwan

Year	19	61 Dec.	19	771 Dec.	19	81 Dec.	19	91 Dec.	1993	Oct.
Institutions	Firms	Branches								
Total	409	1369	431	1897	441	3060	495	4196	526	4388
Domestic Banks	10	260	14	417	15	580	17	773	34	1145
Local Branches of Foreign Banks	. 1	1	6	6	24	24	36	47	37	32
Credit Cooperatives	80	153	78	228	74	286	. 74	499	74	522
Credit Departments of Farmers' and Fishermen's Associations	291	385	294	394	284	784	311	1096	312	851
Medium Business Banks	8	84	. 8	118	8	195	8	298	8	402
Investment and Trust Companies	1	1	6	6	8	31	8	70	6	49
Insurance Companies	17	34	24	80	23	167	36	181	50	156
Postal Savings System	1	451	1	648	1	1023	1	1121	1	1258
Bills Finance Companies	-	-	-	-	3	5	3	20	3	22
Securities Finance Companies	-	-	-	-	1 1	1	1	1	1	. 2

Source: MOF, Yearbook of Financial Statistics of the Republic of China, 1986.

Note: 1. Data do not include the Central Bank of China, and Central Deposit Insurance Corporation.

2. The number of branches includes head offices.

Outstanding Deposits and Loans Table 5 of Financial Institutions in Taiwan

Unit: NT\$ Million, %

Items	Deposits							
(End of Year) - Institutions	1961	1971	1981	1991	1993			
Domestic Banks	14,120	76,288	633,456	3,725,216	5,122,308			
	(75.57)	(65.21)	(53.48)	(42.90)	(44.79)			
Local Branches of Foreign	( 0.03)	157	5,104	75,736	122,456			
Banks		( 0.13)	( 0.43)	(0.87)	(1.07)			
Medium Business Banks	915	5,858	56,713	679,028	971,010			
	( 4.90)	(5.01)	(4.97)	( 7.82)	( 8.49)			
Credit Cooperatives	1,892 (10.13)	12,983 (11.10)	126,301 (10.66)	988,339 (11.38)	1,493,538 (13.06)			
Credit Department of Farmers' and Fishermen's Associations	1,105 (5.91)	6,557 (5.60)	89,964 (7.60)	726,331 (8.36)	1,058,591 (9.26)			
Postal Savings Systems	632	11,812	165,751	1,242,914	1,607,323			
	( 3.38)	(10.10)	(13.99)	(14.31)	(14.05)			
Investment and Trust	-	1,167	78,398	494,780	376,609			
Companies		(1.00)	(6.62)	(5.70)	(3.29)			
Life Insurance Companies	15	2,167	28,838	451,983	685,669			
	( 0.08)	(1.85)	(2.43)	(8.66)	(5.99)			
Total	18,685	116,989	1,184,525	8,684,327	11,437,504			
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)			
Items	Loans							
(End of Year) Institutions	1961	1971	1981	1991	1993			
Domestic Banks	14,358 (82.15)	92,289 (75.54)	885,035 (66.94)	4,742,106 (63.45)	6,722,477 (62.83)			
Local Branches of Foreign	( 0.40)	4,743	107,753	235,704	279,349			
Banks		(3.88)	(8.15)	(3.15)	( 2.61)			
Medium Business Banks	659	5,506	68,750	727,231	1,044,710			
	(3.77)	(4.51)	(5.20)	(9.73)	(9.76)			
Credit Cooperatives	1,236	8,719	88,028	582,911	926,602			
	(7.07)	(7.14)	(6.66)	(7.80)	(8.66)			
Credit Department of Farmers' and Fishermen's Associations	817 ( 4.67)	4,972 (4.07)	66,464 (5.03)	395,002 (5.29)	702,295 (6.56)			
Postal Savings Systems	( 0.32)	479 ( 0.39)	1,873	24,918 (0.33)	104,701 ( 0.98)			
Investment and Trust	277	3,746	78,210	448,780	407,154			
Companies	(1.59)	(3.06)	(5.91)	(6.00)	( 3.81)			
Life Insurance Companies	( 0.03)	1,721 (1.41)	26,085 (1.97)	317,360 ( 4.25)	512,249 (4.79)			
Total	17,478	122,184	1,322,198	7,474,012	10,699,537			
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)			

Source: Financial Statistics Monthly, Taiwan District, the Republic of China, The Central Bank of China.

Note: Outstanding loans includes loans, investments and holdings of real estates.
Deposits = Deposits held by Enterprises and Individuals + Government Deposits.

composed of 17 domestic banks (247 branches) and 38 foreign banks (48 branches).

The financial institutions can be further classified into several subsystems according to their functions and activities. Besides the commercial financing system, there is the trade financing system, the small- and medium-sized business financing system, the strategic industries financing system, among others. These subsystems other than the commercial financing system can be called the financial preferential system.

Before examining this financial preferential system, the historical background and performance of several important financial institutions is discussed. Those institutions are the central bank, domestic full service commercial banks, specialized banks, local branches of foreign banks, medium business banks, cooperatives, other financial institutions, the money market, and the capital market.<sup>2</sup>

#### a. Domestic Full Service Commercial Banks

For decades, commercial banks have been government-owned, and private banks were not allowed. Government-owned banks play the key role in the Taiwan financial system. Banking privatization was not approved by the Ministry of Finance until 1989. In the new Banking Law of 1989, the government for the first time allowed commercial banks to be privately owned. Therefore, the Banking Law of 1989 is considered as an very important law in the history of financial reform.

Before 1989, most commercial banks were owned by the government, with the exception of four private banks. There were special reasons for the existence of these private banks. Three of them are owned by overseas Chinese. The government approved these banks in order to absorb funds from abroad. One of them, the International Commercial Bank of China, was created from the Bank of China after the Republic of China withdraw from the United Nations because of pressure from Mainland China. It is obvious that the existence of the four private banks had a political

<sup>&</sup>lt;sup>2.</sup> This information was collected from the annual books and reports of the various banks.

motivation.

In response to the new Banking Law of 1989, 17 new private banks have been established from the end of 1991 up to the end of 1993. In 1990, 19 groups sent applications to the Ministry of Finance. These were the first-run applications, and 15 of them were authorized. Each of them were allowed to open five branches when established<sup>3</sup>. The first new bank started operations at the end of 1991, and the other 14 banks started operations in the first half of 1992. Also, a new private bank, formulated from the China Trust Company Ltd., was approved in early 1992, and started operations in July of 1992. In the second run of applications, just one bank applied, and it was authorized in June of 1992, and started to operate in April of 1993.

#### b. Specialized Banks

There are five specialized banks. The Export-Import Bank of China is related to trade, Chiao-Tung Bank to industrial development, the Land Bank of Taiwan to land and real estate, and the Farmers Bank of China to agriculture. The Central Trust of China is related to government procurement.

#### c. Local Branches of Foreign Banks

Before 1965, there was only one local branch of a foreign bank. Monetary authorities in Taiwan hesitated to open up the domestic financial services market to foreign banks at that time. After 1965, as U.S. economic aid was about to end, the authorities changed their policy to allow foreign banks to establish branches in Taipei in order to encourage foreign investment. The existence of foreign banks has put a competitive pressure on domestic banks.

#### d. Medium Business Banks

Medium business banks are classified as one of specialized banks sometimes. According to the Banking Law of 1975, sometimes medium business banks in Taiwan were developed from the long-standing mutual

<sup>&</sup>lt;sup>3</sup>. If the operating department and savings department are counted as two units, it could be considered a total of seven units.

loans and savings companies. Eight medium business banks were established, including one government bank, and seven private banks. The medium business banks are an important sector of the small-and-medium business financing system.

#### e. Cooperatives

There are three kinds of cooperatives: credit cooperative associations, the credit departments of farmers' associations, and the credit departments of fishermen's associations. These cooperatives are regional. Although they can accept deposits from the general public, their loans are extended to just their members. The government-owned Cooperative Bank of Taiwan acts as a central bank for the cooperatives.

#### f. Other Financial Institutions

#### 1. The Postal Savings System

The functions of the postal savings system are performed by the Directorate General of Remittance and Savings Banks which was established in 1930 and resumed full operations in Taiwan in March, 1962. Besides the remittance services conducted inside and outside the country, the Directorate General of Remittance and Savings Banks also accepts savings deposits through its extensive network of post offices. The postal savings system is popular because they maintain so many more operating units than do the banks. It is much more convenient for the public to deposit in post offices.

Since the postal system was not allowed to extend loans to the public, all the savings deposits the system received were redeposited with the Central Bank of China before March 1982. That is, postal savings deposits redeposited with the CBC served two purposes: (1) a source of funds for economic development, (2) a buffer to reduce inflationary pressure from over-loaning by the CBC to monetary institutions.

However, the redeposit regulation was changed several times. In the 1980s, the deposits were redeposited into four specialized banks in order to enrich the funds for special development purposes. Later, the regulations with regard to deposit destination were changed several times. Sometimes, the central bank used this measure as a monetary control tool. Other times, these deposits were designated sources of special loans to implement industrial policy.

#### 2. Investment and Trust Companies

The operations of investment and trust companies cover a very broad range, including trust-deposit management, direct and syndicated medium- and long-term loans and investments, as well as securities underwriting. In many respects, the investment and trust companies in Taiwan play a role similar to investment banks in other countries.

One of the investment and trust companies was recast into a commercial bank in 1992 in the tide of banking privatization.

#### 3. Insurance Companies

Insurance companies can be classified into two kinds: life insurance companies, and casualty and property companies. Life insurance companies are included in the category of financial institutions, because they accept deposits.

#### g. Financial Markets

#### 1. Money Market

In order to stimulate and lubricate the transaction of short-term funds, the "Regulation Governing the Dealers of Short-term Negotiable Instruments" was promulgated in 1976. Three bills finance companies were established in the following three years. The bills finance companies execute bill transactions in the money market. The major financial instruments in money market are treasury bills, negotiable certificates of deposit, brokers' acceptances, and commercial paper.

Bills finance companies were authorized to act as dealers, brokers, underwriters, and guarantors as well as endorsers of many kinds of money market instruments. Their active participation in the money market contributed to the rapid growth of the market.

The money market has been well-developed into a sound financial market. However, its size is still small, with less than a 10% share on average, as shown in Table 2.

#### 2. Capital Market

The capital market is the market in which securities with more than one year to maturity are traded. The capital market in Taiwan comprises the bond market and the stock market. There are four major financial instruments in the capital market: government bonds, corporate bonds,

debentures, and stocks. The bond and stock markets are not yet fully developed. As firms' bond-issuing costs (including the rates of yields and the administrative costs) were usually higher than traditional bankfinancing costs, firms preferred bank financing to corporate bond issuing for their funds-raising. Also, prudent fiscal performance in Taiwan, which kept the government out of government-deficit trouble, cause the development of an active government bond market to lag far behind.

In order to increase the overall market liquidity and the marketability of individual securities, the Fuh-Hwa Securities Finance Company was established in April 1980. The major functions of this exclusive securities finance company are to provide margin loans for the purchase of securities, to provide accommodation for the sale of securities, and to serve as a custodian of securities.

Before the Taiwan Stock Exchange Corporation began operations in 1962, there had been over-the-counter markets operated by securities brokers and traders. However, the number of listed companies and transactions of listed stocks were relatively small at that time. The ratio of market value of listed stocks to GNP was under 10% for most of the years before 1975, but that ratio was up to about 15% during the years 1976 to 1980. After 1980, this ratio continued to climb to 19.8% in 1986 and 44.8% in 1987, showing an upward trend in the stock market.

The most important factor that contributed to this upward trend was the high expectation that the value of New Taiwan Dollar would be appreciate, and "hot money" from abroad flooded into Taiwan. The abundant funds caused the stock price index to triple during the period 1983 to 1987. The high turn-over ratios (the transaction value of listed stocks divided by the market value of listed stocks), jumped from just over 1 for most of the years after 1970 to an unprecedented record high of 1.92 in 1987. The high turn-over ratio indicates the stock market in Taiwan is not much of a vehicle for investment but a paradise for risk lovers.

Stock market fever has calmed down since 1989, because the central bank adopted a contractionary monetary policy to decrease the money supply. Consequently, the stock index dropped from over 12,000 to under 4,000 in several months. After that, although some fluctuations occurred, the craze of the late 1980s did not occur any more.

The major characteristics of dual financial system in Taiwan have been reviewed in this section. It is shown that indirect finance dominates direct finance. Government banks dominate private financial institutions. Although government banks can not satisfy funds of many businesses, the informal financial system can provide business funds to some extent.

## III. Overview of Financial Policy

This section briefly summarizes the contents of four major financial policies: monetary policy, foreign exchange policy, policies for financial system development and financial preferential policy.

#### a. Monetary Policy

Monetary policy is executed by the Central Bank. One of the Central Bank's major objectives is to ensure price stability. Generally speaking, this objective is well under control. Taiwan has maintained stable prices since the Second World War.

Table 6 shows that the annual rate of change of consumer prices were usually less than 5%, except during the periods of the two oil crises, 1973-74 and 1980-81. In 1973, the world economy experienced a shortage of food, lack of raw materials, rise in wages, insufficient energy supplies, and an upswing in oil prices. The price level in Taiwan jumped accordingly. The Central Bank adopted several measures to stabilize the financial situation. In order to stabilize prices, some contractionary measures were adopted, such as domestic banks were asked to provide funds to finance importers, the government issued savings bonds and treasury bonds, and the margin for import advances were raised.

In 1974, in order to overcome the continuous pressure of inflation, the government executed "The Act for Stabilizing the Current Economy" in January. The Central Bank raised deposit interest rates, and did not make nonessential loans. By May, the economy had slumped into recession, so the Central Bank adopted several measures to stimulate the economy. These measures worked effectively to some extent, and the economy began a recovery in 1975.

In 1979, the second oil crisis occurred. In order to restrain expected inflation, "The Act for Handling Current Price Problems" was enacted. Bank interest rates were raised and some measures were adopted for

Table 6 Growth Rate and Inflation Rate

	Table o of owen Rate and Inflation Rate							
Year	GNP Growth Rate	Growth Rate of Consumer Prices	Stock Price Index (1966=100)	Growth Rate of Money Supply				
		111000	(1000 100)	$M_{1B}$	M <sub>2</sub>			
1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993	6.8 7.9 9.4 12.3 11.0 9.0 10.6 9.1 9.0 11.3 13.0 13.4 12.8 1.2 4.4 13.7 10.3 14.0 8.5 7.1 5.8 4.1 8.7 11.6 5.6 12.6 11.9 7.8 7.3 5.0 7.2 6.0 5.9	7.83 2.34 2.24 - 0.20 - 0.08 1.99 3.35 7.92 5.04 3.58 2.83 3.01 8.17 47.47 5.24 2.50 7.04 5.77 9.75 19.01 16.34 2.96 1.35 - 0.02 - 0.17 0.70 0.52 1.28 4.41 4.13 3.62 4.50 2.90	362.45 	5.0 28.1 35.0 15.8 12.2 30.1 11.5 15.6 15.0 30.6 34.1 50.4 10.5 28.8 25.1 33.6 37.0 7.7 22.7 13.8 14.6 18.4 9.3 12.2 51.4 37.8 24.4 6.1 -6.6 12.1 12.4 15.3	13.9 30.5 30.5 15.5 19.3 23.1 12.4 21.7 23.3 28.9 32.5 29.8 24.8 28.0 26.0 31.0 9.6 21.9 18.6 24.3 26.4 20.1 23.1 25.3 26.6 17.9 19.3 16.6 15.1			

Source: Taiwan Statistical Data Book, Council for Economic

Planning and Development, Republic of China.

1. M<sub>1B</sub> = circulating currency + checking accounts + passbook deposits + passbook savings deposits. Note:

 $M_2 = M_{1B} + quasi-money.$ 

2. Growth rate of money supply is based on the outstanding volume at end of month.

enriching bank funds. The central bank also adopted some selective credit policies to aid economic development, including trade-related policies, loans for small- and medium-sized firms.

An abundant trade surplus and an accumulation of foreign reserves occurred in the 1980s and has lasted for years. New Taiwan dollars were kept under value to maintain high trade surplus. The U.S. government put great pressure on Taiwan to allow Taiwan's foreign exchange rate to reflect the supply and demand of foreign currency, and appreciation of the NT dollar became inevitable. In order to avoid a tremendous impact on exporters, the Central Bank announced that the NT dollar would be appreciated gradually. This announcement attracted a large capital inflow, leading to a dramatically high growth rate of the money supply. These funds flooded into the stock market and the real estate market, feeding speculation. Fortunately, however, consumer prices maintained their stationary trend.

A high money growth rate and low inflation rate both appeared in the 1980s in Taiwan. Traditional money-demand theory is not comprehensive enough to explain this phenomenon. Ya-Hwei Yang and Jia-Dong Shea (1994) sets up a theoretical model incorporating stock trading and import prices to analyze the relationship between the money supply and the GDP deflator. An empirical study using quarterly data from the first quarter of 1978 to the second quarter of 1993 supports the theoretical model. Unitroot test, cointegration test, and two-stage least squares are adopted. The empirical results show that the decrease in import prices (after considering New Taiwan dollar appreciation and import decontrol) helped stabilizing domestic prices. The results also show that stock trading did absorb, to certain extent, the influence of the money supply on prices in the period of 1986 to 1991. Also, our model has better forecasting performance than does the traditional model.

In order to solve the high money growth rate problem, the Central Bank adopted a contractionary policy in 1989. The money growth rate  $(M_{1B})$  dropped to 6.1% in 1989, and even went negative (-6.6%) in 1990. The stock price index fell dramatically and has remained stable. The above description shows clearly that monetary policy significantly influences the price level, the stock and real estate price levels, and major economic activities.

#### b. Foreign Exchange Policy

Taiwan's exchange rate policy has been adjusted several times over the past few decades, experiencing a multiple exchange rate era, a fixed exchange rate period, a managed floating exchange rate era, and a flexible exchange rate phase.

After 1949, the foreign exchange rate of the New Taiwan dollar was determined and fixed by the Central Bank. From 1949 to 1968, differing exchange rates were in effect for different kinds of products. This was the multiple exchange rate system period. Between 1969 to 1978, a unit fixed exchange rate was determined by the Central Bank. In 1968 the foreign exchange rate was fixed at US\$1=NT\$40. In 1973 it was changed to US\$1=NT\$38, and 1978 it was adjusted to US\$1=NT\$36. This was the fixed exchange rate system period. Then, in 1979 a managed floating exchange rate system was adopted, and a foreign exchange market formally The "central rate" was determined in accordance with demand and supply of the previous day's transaction. The difference in the central rate between two consecutive days was not allowed to be greater than 2.25%. Finally, in April of 1989 the "central rate" system was cancelled, and a flexible exchange rate system has been in effect ever since. However, when the Central Bank wants to influence exchange rates, it can still intervene to some extent in the foreign exchange market.

New Taiwan dollars have been undervalued for decades, which has contributed greatly to the tremendous trade surplus. The slow appreciation process of the NT dollar in the mid-80s had a tremendous impact on the trade and industrial structure of Taiwan, as previously discussed.

Generally speaking, the Central Bank tries to achieve multiple objectives. Stabilization of the money supply and prices, stabilization of foreign exchange rates, and stimulation of the economy and trade are all pursued by the Central Bank. However, these objectives conflict sometimes. During the oil crises, the Central Bank adopted contractionary measures to stabilize prices, but also used expansionary instruments to fight recession. Stabilization of the foreign exchange market means that the money supply is out of control. How to find a most suitable policy combination is a difficult task.

#### c. Policies for Financial System Development

Since World War II, Taiwan's financial system has been strictly controlled.

Although financial liberalization has been demanded by the public, its speed was not accelerated until the 1980s.

The major component of the financial system is the banking system. Therefore, when we discuss the development of the financial system, we always take the development of the banking system as being a representative. These regulations include interest rate limitations, control on ownership of banks, restrictions on the establishment of new banks, regulations on foreign banks, and the activities of bank operations. These restrictions have been gradually deregulated.

#### 1. Interest Rate Regulation and Deregulation

The purpose of regulation of interest rates at the beginning stage of economic development is to provide low-cost capital to entrepreneurs. After the economy grows to some extent, interest rate liberalization is pursued to improve the allocational efficiency of financial market.

The government in Taiwan has controlled bank interest rates for a long time. Only in recent years has it been decontrolled. Prior to 1975, the government-prescribed interest rates for loans and deposits were all uniform. In 1975, the government required that uniform interest rates for deposits would be prescribed by the Central Bank of China, and that the ceiling and floor interest rates for bank loans would be fixed by the Interest Rate Recommendation Committee of Banks Association and subject to the approval of the central bank. Subsequently, several adjustments were made to gradually enlarge the range between the ceiling and floor interest rates for bank loans. The interest rates for banks debentures and negotiable call loans were allowed to fluctuate freely in 1980. In 1985, the banks were permitted to set their own interest rates on loans (prime rate) within the prescribed ceiling and floor limits. In 1986, the ceiling limit for interest on loans was abolished, with only the floor limit retained.

Since the promulgation of the new Banking Law on July 19, 1989, both the ceiling and floor limits for interest rates on deposits and loans have been abolished, and interest rate liberalization was finally completed. The interest rate recommendation committee was dissolved at the same time. Before private commercial banks started operations, although interest rates can technically be decided by each bank, market interest rates remained stable for a period of time. The cost of capital for the three major commercial banks were similar so that their interest rate structures were also alike. After interest rate liberalization, they acted as the price

leader for a while. The interest rates of the three were identical most of the time. In effect, they collusively monopolized the market. However, since the new private banks began to prepare for establishment in late 1991, the variances of the prime rate of different banks has widened, from 0.24% before August of 1991 to over 0.45% after September of 1991.

#### 2. Deregulation of Private Banks

In order to completely secure the stability of financial markets and control the flow of funds, the government prefers government-owned financial institutions to private banks. However, the efficiency of government banks is considered much lower than private banks. Yang (1993) made a study on this topic, which supports the above assertion. Financial liberalization becomes a trend when the economy develops to a certain extent.

Banking privatization is one of major financial reforms in Taiwan's financial history. Deregulation of private banks was allowed by the Banking Law of 1989. In June of 1991, 15 new banks are authorized. By April of 1993, 17 banks were established and operating, creating better service attitudes and more competition in the whole banking industry.

#### 3. Control and Deregulation of Ownership of Banks

Owning the banks allows the government, but also councilmen, to have the power to determine the direction of funds. From the viewpoint of public policy, the government can execute industrial policy through government banks better than through private banks. From the viewpoints of vested groups, councilmen can influence loan decisions by manipulating their political power.

Banks in Taiwan were not allowed to be privatized until the Banking Law of 1989. Although there were four private banks, three of them were owned by overseas Chinese, and of one was recast from the Bank of China for political considerations. Government banks have been criticized because their operations restrict efficiency, and their attitudes are much too conservative.

In order to increase its ability to self-manage, some measures were attempted. The three major commercial banks sold their share of stock from the government to the public in 1990. However, this act was not successful because the stock market was in recession and few people purchased the stocks. The proposal of selling shares was then delayed.

In addition, several drafts of "The Law on the Management of Government Banks" were proposed, written and modified, but they were not approved by the Legislative Yuan.

#### 4. Restrictions on Foreign Banks

In order to attract foreign capital, local branches of foreign banks were welcomed. On the other hand, in order not to put too much pressure on local financial institutions, foreign banks are usually restricted to some extent. However, although restricted, activities of foreign banks did create some competition for local banks. Facing the tide of financial internationalization, the regulations on foreign banks were gradually reduced.

The number of local branches for each foreign bank is obvious proof of restriction. The foreign banks were allowed to open just one branch before 1986. In 1987, a second branch was first approved. In 1991, a third branch was approved. By the end of 1989, each government bank had 55.7 branches on average, while foreign banks have just 1.2 branches.

#### 5. Broadening of Bank Activities

Following the trend of financial liberalization and financial internationalization, approved activities for banks were broadened gradually. For example, in the past, bills transactions were allowed to be conducted only by bills finance companies. However, these activities were opened to some private banks in 1992. The Ministry of Finance seems to be planning to develop the banking industry into a universal banking system.

#### 6. Path Toward Financial Internationalization

Several steps have been taken to move toward financial internationalization. These include the following: 1. Establishment of foreign financial institutions. 2. Establishment of foreign branches of domestic banks. 3. Interbank call market for foreign reserves (open in 1989). 4. Release of control on capital movement. The government-set limit on capital outflow per capita each year was \$5 million, and capital inflow per capita each year was \$50,000. This restriction has been adjusted to a \$5 million ceiling for both capital inflow and outflow. 5. Plan to establish Taipei as an Asian financial center. The government of Taiwan wants to follow Singapore, Japan, and Hong Kong to become one of the Asian financial centers. Abundant savings, foreign reserves, and

highly-educated human resources can be advantages. However, some other points still need to be improved: free capital movement, a preferential tax system, information systems, and the internationally-accommodating financial regulations and affiliated financial services. It will take time for Taipei to reach appropriate standards.

#### d. Financial Preferential Policy

In order to stimulate industrial development and fulfill specific purposes, financial preferential policies are often adopted by governments. Some financial subsystems are established for this function, such as an export financing system, a small- and medium-sized businesses financing system, and a strategic industries financing system. Some selective credit policies are occasionally executed as well.

The special loans give some privileges to selected customers, such as low interest rates and easier access to funds. Some special loans are executed by the particular banks, such as strategic industry loans. Some are executed by domestic general banks and foreign banks, such as loans for export. Others are a combination of both specialized banks and general banks, such as for small- and medium-sized enterprises loans.

The preferential financial subsystems are briefly analyzed below.

#### 1. The Export Financing System

General commercial banks extend loans for exports with preferential interest rates, and provide easier financing terms for exports. The Import-Export Bank of China also plays an important role, providing insurance, loans, and guarantees for exports.

Ever since export promotion was proposed in the 1960s as Taiwan's economic development strategy, export financing policy has been important.<sup>4</sup> To some extent, Taiwan's excellent economic performance during the 1960s and early 1970s can be attributed to its outward-oriented development policies.

Usually, export industries receive high priority in credit rationing, and

<sup>&</sup>lt;sup>4.</sup> Other export incentives include rebates of custom duties and commodity taxes on imported raw materials, tax exemptions, retention of foreign exchange earnings for the import of raw materials and machinery, etc.

have been granted low interest loans to provide financing for reshipment production financing and the import of raw materials. After the 1970s, as a continuous trade surplus led to increased foreign exchange reserves, the authorities gradually reduced the interest rate difference. This preferential policy lasted for years until 1989.

In the Trade Financing System, the Export-Import Bank of the Republic of China plays a significant role. The bank was established on January 11, 1979, and is a state-owned specialized bank which provides specific medium- and long-term export-import credits and guarantee services under the supervision of the Ministry of Finance. Starting on the first of April of that year, Eximbank also took over the responsibility for the export insurance services from the Chung Kuo Insurance Corporation.

In accordance with the "Export-Import Bank of the Republic of China Act", the objectives of the Bank are to support government economic and trade policies and to assist local firms in expanding external trade and engage in overseas investments, with the aim of promoting national economic development and to further enhance international economic cooperation.

#### 2. Small- and Medium-sized Business Financing System

Small- and medium-sized businesses are the most active sector economy in terms of number of firms, employees, value of products, and other criteria. However, they have difficulties obtaining loans from formal financial markets. In order to solve this problem, a small- and medium-business financing system was established within the formal financial system. This system is composed of banks, i.e. commercial and special banks (medium business banks), Medium Business Credit Guarantee Funds (MBCGF) and the Small Business Integrated Assistance Center. The following functions are provided by this system.

#### (1) Financing

In addition to commercial banks, the medium business banks are the specialized banks which do SME financing. These specialized banks were transformed from mutual savings companies after 1975 when the Law of Banking was revised. Only one of them is government owned, the Medium Business Banks of Taiwan (MBBT). All others (regional) are private. Each bank has its own channel for its source of funds. The MBBT accepts transfer deposits from the postal savings system and the support of the government Development Fund of the Executive Yuan.

Special loans in various programs are usually lent out through government banks. Furthermore, the credit cooperative associations and credit departments of farmers' and fishermen's associations are not directly connected with SMEs, but they may provide part of the funding demand of SMEs.

#### (2) Guarantees

The establishment of the SMBCGF, a non-profit organization, provides vital assistance to SMEs that usually do not have a healthy financial structure or sufficient collateral. The SMBCGF not only provides credit guarantees to SMEs that are rich in development potential and lack collateral, assisting them to obtain financing funds from financial institutions for sound development, but also simultaneously shares the financing risk with the financing institutions to enhance the institutions' confidence in SME financing.

#### (3) Assistance

In July 1982, seven provincial banks donated funds to establish the Small Business Integrated Assistance Center to provide a combination of assistance to SMEs that encounter difficulties in applying for financing through provincial banks or have unhealthy financial management, then helping them to obtain financing funds. Financing diagnosis and financial management assistance are two primary service items.

Hence, the functioning mechanism of the entire SME financial system is the following: SMEs apply to banks directly for financing. If the bank worries about the SME's capability of repayment, the bank may apply to the SMBCGF to guarantee a certain percentage of the loan. The SME may also ask for diagnostic assistance of its operation, management, technology and marketing in order to prepare a report as a reference to encourage the bank to approve the loan.

#### 3. Strategic Industry Financing System

Preferential policies for strategic industries were introduced in 1982 and six criteria were adopted which the selected strategic industries must meet to be so designated: high linkage effect, high market potential, high technological intensity, a high degree of value-added, a low energy coefficient, and a low level of pollution emissions. Within these strategic industries, certain products are designated to be actively promoted, most of which are in the mechanical products, information and electronics sectors.

The list of selected products has been amended four times and a few products from the biochemical and material industries were included after 1986. In the Six-Year National Development Plan, some new key industries were added, such as biochemical, material industries.

Taiwan's government offers two preferential measures for the purpose of subsidizing the strategic industries. One is preferential loan, the other is technology and management guidance. Preferential loans are administered both by a pool of funds administered by the Bank of Communications, and by a pool of funds administered by the Medium Business Bank of Taiwan. Funds for both pools are supplied partially by the government's Development Fund. Yang (1993) evaluated the costs and benefits of this policy empirically and found that the amount of the ratio of financial support does not seem to play an important role in the technology improvement and management improvement activities of firms. Market potential factors play a much more important influencing role. Therefore, financial liberalization and improvement of financial efficiency is much more effective than a selective credit rationing policy.

In 1992, the Six-Year National Development Plan was promulgated. Originally, the plan targeted total expenditures of NT\$8 trillion. This amount would require a great deal of domestic savings and foreign capital to accommodate the investment. In 1993, the size of plan was reduced to a smaller scale. However, the need for funds is still very acute. In order to solve the funding problem, the government has designed several methods for collecting funds, such as the issuance of government bonds, an increase of tax bases, and even the setting-up of a "Japanese-style fiscal investment and loan program" to pool postal savings and pension funds. The appropriateness of these approaches have been widely discussed domestically. Differing pro and con viewpoints are raised. Even though undertaking the Six-Year National Development Plan is necessary, time is still needed to determine whether the preferential policy-oriented financial system can accomplish its function under this Plan.

### IV. Lessons for Developing Countries

The experiences of Economy and the Financial system in Taiwan can provide developing countries the following lessons:

- 1. Financial policy can be modified at different stages of economic development. For example, preferential low interest rates for exports and under-valued New Taiwan dollar policy stimulated exports in the early stage of Taiwan's economic development. However, this does not mean that preferential financial policy should be in place all the time. In Taiwan, exports have no longer been the only policy target since the 1980s. The pace of financial liberalization is quickening now.
- 2. It is believed that a liberalized financial system is the most efficient financial system. Letting the financial market operate freely in its own way seems more suitable. This is a long-run target to be pursued.
- 3. When market failure occurs and a free market does not work well, private financial institutions and the operation of the interest rate system cannot meet the demand of industry. Special financial institutions can then be designed to fill the gap, such as specialized banks and guarantee systems.
- 4. A dual financial system, in which formal and informal financial systems coexist, has been in operation for decades in Taiwan. The formal financial system has been tightly regulated, and so has not been able to meet the total demand for funds. Many firms, especially small- and medium-sized enterprises, have difficulty obtaining loans from financial institutions. These firms resort to the informal financial market to seek fund sources. This phenomenon might possibly happen in developing countries. Obviously, although financial development is far behind economic development, the informal financial system can fill the gap.
- 5. The government in Taiwan deserves credit for controlling price stability and avoiding serious financial crises. A stable financial system can provide a stable channel for the circulation of funds for the transaction of various economic activities. This is confirmed by past experiences.
- 6. In order to avoid financial instability, a sound supervisory system and a well-designed sequence of financial liberalization are essential. These require time to complete. The government should have an overall design for the sequence of financial liberalization.
- 7. Inappropriate financial policy will have a lasting influence on

- economic development. For instance, if the money supply is too great, it usually results in inflationary pressure for many years. Controlling the supply and maintaining stable prices is a major task of the Central Bank.
- 8. How to find the most suitable policy is a difficult task. In order to pursue financial efficiency and financial stability at the same time, the government should make efforts to search for an optimal policy. In Taiwan, the role of the government has changed. In the 1950s, a high interest rate policy was adopted in order to curb the high inflation rate. In addition, export-oriented policy was successfully used in the 1960s, such as an undervalued Taiwan dollar and preferential interest rates for exports. This evidence supports the contribution of the government during the early stage of economic development in Taiwan. However, in the 1990s, the requirement for an efficient market system is urgent. Inappropriate government intervention is not welcome. This reveals that the role of the government should gradually adjust in different stages of economic development.

#### References

- Baron, David P. (1983), The Export-Import Bank: An Economic Analysis, Academic Press.
- Kuo, Shirley W.Y.(1983), *The Taiwan Economy in Transition*, Boulder, Colo: Westview.
- Li, Kwoh-ting, and Tzong-shian Yu, eds.(1982), Experiences and Lessons of Economic Development in Taiwan, Taipei: Academia Sinica.
- Shea, Jia-dong and Ya-hwei Yang, (1994), "Taiwan's Financial System and the Allocation of Investment Funds," *The Role of the State in Taiwan's Development*, edited by J.D. Aberbach, D. Dollar, and K.L. Sokoloff; M.E. Sharpe, New York.
- Yang, Ya-hwei (1982), An Economic Analysis of Exports and Financial System in Taiwan, Chung-Hua Institution for Economic Research, Economic Papers, No. 13 (in Chinese).
- Yang, Ya-hwei (1993), "Government Policy and Strategic Industries: The Case of Taiwan," in Takatoshi Ito and Anne O. Krueger eds., *Trade and Protectionism: NBER-East Asian Seminar on Economics*, Volume 2, The University of Chicago Press.
- Yang, Ya-hwei and Jia-dong Shea (1994), "Money and Prices in Taiwan in the 1980s," *Discussion Paper* No. 9420. The Institute of Economics, Academia Sinica, Taiwan, Dec.
- Yang, Ya-hwei (forthcoming), "Taiwan: Development and Structural Change of the Banking System," in H. Patrick and Y.C. Park, eds., *The Financial Development of Japan, Korea and Taiwan: Growth, Repression and Liberalization*, Oxford University Press.
- Yang, Ya-hwei (forthcoming), "Trade, the Financial System and Financial Policy," in *The Financial Aspects behind Taiwan's Successful Trade*, edited by Michael Skully, MacMillan Press.

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