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FINANCIAL AND TRADE LIBERALIZATION AND THE AGRICULTURAL SECTOR

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ACRONYMS

ACPC	Agricultural Credit Policy Council
ASEAN	Association of South East Asian Nations
BAIDS	Balanced Agro-industrial Development Policy
BAP	Bankers Association of the Philippines
CAIDS	Country Agro-industrial Development Strategy
CALF	Comprehensive Agricultural Loan Fund
CPI	consumer price index
DBP	Development Bank of the Philippines
DOSRI	Secrecy of Bank Deposit Law
EO	Executive Order
GDP	gross domestic product
GNP	gross national product
GNPR	GNP growth rate
GVA	gross value added
ICM	Informal Credit Markets
ICOR	incremental capital-output ratio
IMF	International Monetary Fund
LBP	Land Bank of the Philippines
90MRR	90-day Manila Reference Rate
PCCI	Philippine Chamber of Commerce and Industry
PDIC	Philippines Deposit Insurance Company
PNB	Philippines National Bank
PSCC	Philippines Standard Commodity Classification
RA	Republic Act
RM	reserve money
TBAC	Technical Board for Agricultural Credit

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EXECUTIVE SUMMARY

Despite massive efforts exerted by the government to industrialize the economy since the 1950s, the relative importance of agriculture in the Philippine economy has not declined as has been experienced by neighboring Asian countries. It is still the largest employer among the major sectors of the economy and a significant contributor to the country's export receipts. Unfortunately, however, macroeconomic policies have generally been biased against the agriculture sector.

The government has recently initiated liberalization in several sectors of the economy. This paper has reviewed financial and agricultural policies and examined the effects of the recent financial and trade liberalization measures on the agriculture sector.

The second half of the 1980s marked a big change in agricultural policy. The government embarked on a balanced agro-industrial policy that was embodied in the Updated Medium-Term Development Plan for 1985-1987. More recently, the government launched the Countryside Agro-Industrial Development Strategy, the main emphasis of which is the modernization and increase in productivity of agriculture, growth and dispersal through agro-based industrialization, and the integration of economic activities in the country.

There were specific liberalization measures undertaken. The government lifted price controls on key agricultural commodities and dismantled existing monopolies in trading and production. Trade and tariff reforms were also introduced, which were in the direction of greater trade liberalization. For the agriculture sector, the reforms included the lifting of the copra ban, abolition of export taxes (except for logs), disbanding of meat importation cartels, privatization of wheat, flour and soybean trading, liberalization of fertilizer and tariff reduction of most inputs. A new round of tariff reforms embodied in EO 470 was introduced in 1991. In particular, tariffs on imports will be gradually reduced within a five-year period to give domestic industries time to adjust and lessen the tariff reforms' budgetary impact. Although there is a narrowing in the difference between the average effective protection rate of the manufacturing sector and the agriculture sector under EO 470, still the former is accorded much higher protection.

A significant part of the current rules and regulations covering the financial sector can be traced to the financial reforms initiated in the early 1980s. Others were introduced in the second half of the 1980s and the 1990s to complement the reforms done earlier. The 1980 financial reforms intended to foster competitive conditions in the financial markets and improve the availability of medium- and long-term funds to the industrial sector. The major components were the deposit and loan interest rates deregulation and restructuring of the banking system. The reforms introduced during the second half of the 1980s and 1990s involved (a) adoption of a uniform, market-oriented rediscount rate by the Central Bank, which effectively ended its selective credit control policy; (b) a clearer definition of the roles of government financial institutions; (c) switch in the emphasis of Central Bank's functions from development-oriented

to stabilization; (d) more liberal bank entry and branching regulations; and (e) improved prudential policies and regulations by the Central Bank.

The performance of the banking system in mobilizing traditional deposits was examined during the period 1970-1990. The financial intermediation ratio, measured as a ratio of deposits to GNP, had been moving erratically during the indicated period. As of 1990, the ratio stood at 30.5 percent, which is still way below the 35.3 percent that was recorded before the 1984-85 balance of payments crisis. The results strongly suggest that stability of the economy is an important requirement to a sustained rise in bank deposits. Interestingly, the ratio in the 1980s was much higher on the average in the 1980s than that in the 1970s, indicating that the banking system was able to mobilize more savings from the private sector in the 1980s than in the 1970s despite a generally unstable economy.

The agriculture sector has consistently obtained the lowest share in total loans outstanding of the banking system. Interestingly, the share of rural banks in total agricultural loans granted declined since 1981. Since the 1980 financial reforms, rural banks were no longer restricted to agricultural lending. Thus, a significant number of them shifted to non-agricultural loans to diversify their loan portfolio. However, in terms of the ratio of agricultural loans granted to total loans granted by each type of banks, still rural banks have remained the largest contributor.

The withdrawal of special credit programs for the agriculture sector that were coursed through the rural banks and the change in the rediscounting policy of the Central Bank since 1985 seemed to have elicited appropriate response from rural banks. In particular, they started to mobilize more deposits as can be seen from the rise in their deposits in real terms since 1985.

A simulation analysis was performed using the PIDS-NEDA macroeconometric model for the period 1992-2000 to determine the effects of specific financial and trade liberalization measures on the economy, in general, and on the agriculture sector, in particular. The effects of sequencing the implementation financial and trade liberalization had also been examined. The results of the simulation analysis are quite instructive.

The impact of reducing fiscal deficit through some revenue-raising measures on the economy is generally favorable. However, it will have differential impacts on the various sectors of the economy. In particular, the industrial and services sectors will be favorably affected while the agriculture sector adversely affected.

The reduction in the reserve requirement ratio will be inflationary due to the resulting higher liquidity, thereby causing instability to the economy. This will, however, have a favorable effect on the agriculture sector since with reduced reserve requirement, more funds could be made available to the agriculture sector.

The increase in savings deposit rate expected of a liberal bank entry and branching does not have a significant impact on the key economic variables. Interestingly, however, it will have a slightly positive effect on some sub-sectors of the agriculture, specifically palay, coconut

and livestock and poultry. This seems to be consistent with the view that a more liberal bank entry and branching policy will help improve financial intermediation, which, in turn, will contribute to the development of the agriculture sector.

The sharp depreciation of the peso vis-a-vis the US dollar will cause a slight slowdown of the economy in the first seven years and an acceleration thereafter. It will have a differential impact on the various sub-sectors of agriculture, although on a net basis the effect is positive. The livestock and poultry and fishery sectors will benefit from such policy action.

The economy as a whole stands to gain from the implementation of EO 470. However, it will have varying effects on the major sectors of the economy. The agriculture sector as a whole stands to lose a little from such policy action. It is to be noted, however, that the direction and magnitude of the effects seem to vary across sub-sectors of agriculture. The rice sub-sector will be adversely affected while the sugar, corn and other crops sub-sectors will be favorably affected.

The import liberalization of rice and corn will slightly improve the economy, but it will have a slight negative effect on the agriculture sector. Some trade-offs are possible within the agriculture sector. The rice and coconut sub-sectors will be negatively affected, while the rest of the agriculture sector will be positively affected by such policy package.

The simultaneous implementation of financial and trade liberalization measures discussed above will have a negative effect on the economy as whole. However, it will have differential impacts on the various sectors of the economy. In particular, it will adversely affect the industrial and services sectors but will positively affect the agriculture sector. The implementation of the package of financial reforms ahead of trade reforms will yield similar results.

The results of the simulation analysis suggest that stability of the economy must not be compromised by any liberalization measures. Given this, the policy package that will yield the best results consists of the following elements: maintain a high reserve requirement ratio on banks' deposit liabilities to control liquidity of the financial system, allow the exchange rate to depreciate moderately in a consistent manner, and implement the tariff reform program embodied in EO 470 including import liberalization of rice and corn. This policy package will push the economy slightly higher than the baseline. Also, the industrial and services sectors will be positively affected while the agriculture sector as a whole will only be mildly negatively affected. Interestingly, within the agriculture sector, the effects of this policy package will differ: negative on palay and coconut sub-sectors and positive on the rest of the agriculture sector. Highly focused government intervention could be designed to reduce the negative effects of such policy package on a few adversely affected sectors. This will have a greater chance of being successfully implemented than instituting an intervention program for a greater number of sectors.

Given the results of this study indicating the potential gains that the agriculture sector will derive from financial liberalization, it should be actively advocating for financial reforms.

1. INTRODUCTION

The present environment in the Philippines seems to be more receptive than five years ago to further economic liberalization measures. The Philippine Chamber of Commerce and Industry (PCCI), which used to be the proponent and defender of protectionist economic policies, is now calling on the government to free the market (Philippine Business Conference 1991). Trade and financial deregulation has been greatly emphasized in their position paper.

The same atmosphere seems to prevail in Congress. More recently, it passed the Foreign Investment Act (RA No. 7042) which seeks to promote foreign investment through greatly simplified and liberal rules and regulations. The Supreme Court just ruled that the Foreign Investment Act is constitutional. This is a signal that the judicial process in the Philippines, slow as it is today, will not anymore hinder the implementation of economic policies formulated by the Executive and Legislative branches of government.

Actually, the march towards greater reliance on the market started in the early 1980s. A major tariff reform program was implemented during the period 1981-1985 on schedule despite strong protests from lobby groups including the PCCI. A reduction in quantitative restriction should have accompanied it were it not for the balance of payments problem that struck the economy in 1983.

Amid objections from the same lobby groups, the Aquino government implemented more trade reforms, which are embodied in Executive Order (EO) No. 49 (October 1986), EO 70 (November 1986), EO 306 (October 1987) and Republic Act No. 6647 (July 1987). All these brought about changes in the nominal tariff structure. Medalla (1990) pointed out that while as a whole the changes were minimal, the average tariff for importable agricultural commodities significantly went down from 46.1 percent in 1985 to 24.1 percent in 1988. This time, the tariff reforms have been accompanied by the reduction in quantitative restrictions. In particular, the number of regulated items went down from more than 34 percent of the total number of PSCC (Philippine Standard Commodity Classification) lines in 1985 to less than 10 percent today.

Significant reforms have been implemented in the financial sector since 1980. The structure of the banking system had been altered, giving more emphasis on competition and efficiency. This was accompanied by the removal of ceilings on interest rates.

Recently, the government had implemented another tariff reform program (EO 470), which envisions to reduce tariffs over a five-year period. In the financial sector, the Central Bank had recently reduced regulations on bank entry and branching, which is expected to improve competition. Hopefully, this will result in an increase in savings deposit rate, which today is very low due to the oligopoly power wielded by existing banks. Intermediation taxes are also expected to be reduced. Moreover, there are strong indications that the foreign exchange market will soon be deregulated.

All this definitely will have a tremendous impact on the economy. However, it is not known how these reforms affect the various sectors of the economy. The specific issue that this

study wishes to address is how the financial and trade liberalization efforts affect the agriculture sector. For instance, will the agriculture sector benefit from a more liberal bank entry and branching policy? Will the tariff reforms such as those embodied in EO 470, positively or negatively affect the agriculture sector? Since the direction and timing of the effects of the various liberalization measures on the agriculture sector could differ, the issue of sequencing the introduction of the liberalization measures becomes important. This study will also address this issue.

Although this study considers the impact of both the financial and trade liberalization measures on the agriculture sector, more emphasis is given on the former. The main reason for this bias is that existing literature has very limited discussions on this issue. Thus, more discussions are devoted to some aspects and experience of the Philippines with financial liberalizations with special reference to the agriculture sector.

The next chapter briefly discusses the role and contribution of the agriculture sector to the economy. It also briefly reviews the changes in agricultural policy of the country over the last twenty years. Chapter 3 discusses some issues on financial liberalization. More specifically, it reviews the changing views on the character of government intervention in the financial markets. Chapter 4 presents an extensive discussion of the evolution of the general financial and agricultural credit policy in the Philippines. It also assesses the performance of the financial sector. The results of the analysis of the previous chapter and this chapter provide a useful background for analyzing the reforms that have been most recently implemented or are currently being contemplated. Chapter 5 provides a quantitative analysis of the likely effects of various financial and trade liberalization measures on the agriculture sector. A simulation analysis using a macroeconometric model is performed. The last chapter summarizes the major findings of the study and discusses some policy implications.

_2. OVERVIEW OF THE AGRICULTURE SECTOR

This chapter briefly discusses the role and contribution of the agriculture sector to the economy and reviews agricultural policy.

2.1 Role of the Agriculture Sector in the Economy

Despite massive efforts exerted by the government to industrialize the economy since the 1950s, the relative importance of agriculture in the Philippine economy has not declined significantly as has been experienced by neighboring Asian economies, such as Korea, Thailand and Indonesia. During the period 1970-1990, the share of agriculture in total GDP fluctuated between 27 and 30 percent (Table 2.1). Except for five years, the agriculture sector posted an impressive growth rate of more than 3 percent during indicated period (Table 2.2). Moreover, it acted as cushion to the severe economic crisis experienced in 1984 and 1985 when it grew by 2.3 percent and 3.3 percent, respectively, while other sectors posted negative growth rates.

The agriculture sector is still the largest employer among the major sectors. As of 1990, it absorbed 45 percent of the total employed population, slightly lower than its labor absorption rate in 1970 (Table 2.3).

There has been a visible change in the composition of agricultural output. The share of crops in total value-added of the agriculture sector rose from 53 percent in 1970 to 63 percent in 1980 and declined thereafter (Table 2.4). This is mainly accounted for by the significant rise in the share of other crops while those of palay, corn, coconut, sugarcane, and banana have remained more or less the same. Of more interest is the share of the poultry sector which almost consistently increased from 4 percent in 1970 to 12 percent in 1990. In contrast, the share of forestry substantially declined from 13 percent in 1970 to only 2 percent in 1990. During the last five years, the livestock and the poultry sub-sectors provided more spark to the agriculture sector whose growth rates averaged 8.5 percent and 7.4 percent, respectively, compared to the agricultural crops' growth which averaged only 0.5 percent (Table 2.5).

Although the contribution of the agricultural output to the total domestic economy has hardly changed over the last twenty years, its share in total value of exports declined dramatically from 44 percent in 1970 to 17 percent in 1990 (Table 2.6). It is, however, to be noted that the composition of agricultural exports has significantly changed over the years. There is a marked decline in the share of traditional exports, such as sugar and coconut, while the share of new agricultural exports, such as fish and other seafoods, rose considerably.

All this points to the dynamism and large potential of the agriculture sector to contribute significantly to the economy.

**TABLE 2.1 Gross Domestic Product by Industrial Origin
(in percent shares to GDP)**

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
1. AGRI. FISHERY AND FORESTRY	28.88	28.68	28.58	27.96	27.32	26.78	26.77	26.47	26.13	25.70	25.56
2. INDUSTRIAL SECTOR	29.50	30.31	32.00	33.16	33.36	34.08	34.82	35.57	35.77	36.35	36.16
3. SERVICE SECTOR	41.62	40.82	39.43	38.88	39.32	39.14	38.41	37.97	38.10	37.95	38.28
GROSS DOMESTIC PRODUCT	100	100	100	100	100	100	100	100	100	100	100
GROSS DOMESTIC PRODUCT (In Million Pesos)	51,014	53,526	56,464	61,252	64,313	68,437	73,922	78,467	82,784	87,962	92,568

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

{Financial Liberalization/TABLE1A.wk1/12-03-91}

TABLE 2.1 (cont'd)

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1. AGRI. FISHERY AND FORESTRY	25.58	25.63	24.86	27.05	29.20	29.73	28.11	27.40	27.05	26.95
2. INDUSTRIAL SECTOR	36.34	36.08	35.98	34.37	32.26	31.14	32.04	32.76	33.16	32.96
3. SERVICE SECTOR	38.08	38.29	39.15	38.56	38.54	39.12	39.85	39.84	39.80	40.09
GROSS DOMESTIC PRODUCT	100	100	100	100	100	100	100	100	100	100
GROSS DOMESTIC PRODUCT (In Million Pesos)	96.207	98.999	99.921	93.927	89.904	91.180	95.463	101.450	107.168	109.890

Sources: (a) Economic and Social Statistics Office.
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

{Financial Liberalization/TABLE1A.wk1/12-03-91}

**TABLE 2.2 Gross National Product and Gross Domestic Product by Industrial Origin
(growth rates, in percent)**

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
1. AGRI. FISHERY AND FORESTRY	...	4.91	4.39	6.15	2.58	4.31	7.98	4.96	4.15	4.51	4.67
2. INDUSTRIAL SECTOR	...	7.80	11.38	12.41	5.64	8.70	10.38	8.41	6.11	7.98	4.68
3. SERVICE SECTOR	...	2.90	1.89	6.98	6.19	5.93	5.98	4.93	5.88	5.83	6.15
GROSS DOMESTIC PRODUCT	...	4.92	5.49	8.48	5.00	6.41	8.01	6.15	5.50	6.25	5.24
GROSS NATIONAL PRODUCT	...	5.77	5.70	9.26	5.60	5.80	7.40	6.34	5.76	6.89	4.96

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

{Financial Liberalization/TABLE1A.wk1/12-03-91}

TABLE 2.2 (cont'd)

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Average 71-90
1. AGRI. FISHERY AND FORESTRY	4.00	3.13	(2.10)	2.27	3.32	3.27	(1.02)	3.57	4.29	2.19	3.58
2. INDUSTRIAL SECTOR	4.45	2.15	0.68	(10.22)	(10.17)	(2.08)	7.73	8.65	6.91	1.93	4.68
3. SERVICE SECTOR	3.39	3.47	3.20	(7.37)	(4.37)	2.95	6.63	6.26	5.51	3.28	3.78
GROSS DOMESTIC PRODUCT	3.93	2.90	0.93	(6.00)	(4.28)	1.42	4.70	6.27	5.64	2.54	3.98
GROSS NATIONAL PRODUCT	3.45	1.90	1.11	(7.07)	(4.12)	1.86	5.91	6.64	5.70	3.08	4.10

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

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TABLE 2.3 Agricultural Employment, 1970-1990 (in millions)

Year	T O T A L EMPLOYMENT (All Industries)	Number of Persons Employed (Agri Sector)	Percent To Total
1970	10.734	5.614	52.30
1971	11.584	5.607	48.40
1972	12.091	6.338	52.42
1973	12.706	6.733	52.99
1974	13.078	7.066	54.03
1975	13.443	7.076	52.64
1976	14.450	7.599	52.59
1977	14.547	7.276	50.02
1978	15.741	8.119	51.58
1979	16.733	8.077	48.27
1980	16.794	8.674	51.65
1981	17.631	9.050	51.33
1982	17.993	9.308	51.73
1983	18.898	9.631	50.96
1984	19.238	9.553	49.66
1985	19.698	9.738	49.44
1986	20.489	10.197	49.77
1987	20.050	9.730	48.53
1988	21.213	9.923	46.78
1989	21.910	9.900	45.18
1990	22.210	9.980	44.93

Source : (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Statistics Office (NSO).

{Financial Liberalization/AGRIEMP.wk1/12-03-91}.

TABLE 2.4 Gross Value Added in Agriculture, Fishery and Forestry by Industry Group

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
1. AGRICULTURAL CROPS	52.85	53.04	55.51	52.94	56.44	61.67	61.56	61.75	61.42	62.60	63.08
Palay	18.98	17.95	17.04	16.63	17.64	18.32	17.17	18.27	17.41	17.46	17.62
Corn	6.09	5.46	6.27	5.56	6.21	6.71	6.27	6.54	6.65	6.29	6.12
Coconut incldg. Copra	5.30	6.20	7.15	6.00	4.37	6.20	7.27	6.39	6.15	5.62	5.55
Sugarcane	6.69	8.02	6.59	6.51	7.85	7.40	8.28	6.47	5.99	6.04	5.59
Banana	5.05	4.40	1.17	4.15	5.21	2.24	2.28	2.45	2.84	3.16	3.49
Other Crops	10.74	11.02	17.29	14.08	15.16	20.82	20.30	21.64	22.38	24.02	24.72
2. LIVESTOCK	11.95	12.19	10.88	11.70	11.79	9.28	8.78	8.69	8.83	8.65	7.78
3. POULTRY	4.17	4.74	4.49	4.42	4.38	4.72	4.89	5.09	5.58	6.14	6.90
4. FISHERY	17.58	17.27	16.67	16.87	17.31	17.43	16.72	16.86	16.95	16.27	16.38
5. FORESTRY	13.45	12.57	12.46	14.07	10.08	6.90	8.05	7.62	7.23	6.35	5.86
GROSS VALUE ADDED IN AGRI- CULTURE, FISHERY, & FORESTRY	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

{Financial Liberalization/TABLE-2A.wk1/12-03-91}

TABLE 2.4 (cont'd)

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1. AGRICULTURAL CROPS	62.65	62.78	60.25	61.25	62.60	62.98	61.02	59.54	58.71	56.81
Palay	17.50	17.69	15.70	16.53	17.77	18.07	16.82	17.06	17.24	16.23
Corn	6.07	6.00	5.53	5.79	6.47	6.63	6.98	6.97	6.83	7.16
Coconut incldg. Copra	5.67	5.40	4.87	3.75	5.41	6.72	6.72	5.90	5.35	5.29
Sugarcane	5.43	6.08	4.56	5.24	3.16	2.86	2.61	2.87	3.08	2.84
Banana	3.16	3.12	3.63	3.57	3.55	3.45	3.27	3.07	3.06	2.73
Other Crops	24.81	24.49	25.96	26.37	26.25	25.26	24.62	23.67	23.15	22.55
2. LIVESTOCK	7.82	7.95	8.73	8.51	8.95	8.42	9.06	9.59	10.15	10.74
3. POULTRY	7.36	8.64	9.99	10.19	9.81	9.40	10.22	10.95	11.55	12.36
4. FISHERY	16.79	16.76	17.74	17.04	16.84	16.79	17.28	17.39	17.41	18.09
5. FORESTRY	4.77	3.87	3.30	3.01	2.69	2.41	2.41	2.48	2.18	2.00
GROSS VALUE ADDED IN AGRI- CULTURE, FISHERY, & FORESTRY	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

{Financial Liberalization/TABLE-2A.wk1/12-03-91}

**TABLE 2.5 Gross Value Added in Agriculture, Fishery and Forestry
by Industry Group
growth rates, in percent**

Industry	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
1. AGRICULTURAL CROPS	...	5.29	9.23	0.64	9.38	14.66	7.78	5.28	3.59	6.52	5.48
Palay	...	(0.82)	(0.90)	2.98	8.82	8.96	1.19	11.69	(0.71)	4.80	5.60
Corn	...	(5.91)	19.91	(6.42)	14.57	13.27	0.98	9.43	5.96	(1.11)	1.69
Coconut incldg. Copra	...	22.66	20.46	(11.44)	(25.24)	48.69	26.58	(7.72)	0.23	(4.51)	3.39
Sugarcane	...	25.66	(14.21)	4.33	23.62	(1.09)	20.80	(18.01)	(3.57)	5.48	(3.22)
Banana	...	(8.60)	(72.35)	275.53	28.90	(54.95)	10.00	12.64	20.87	16.29	15.69
Other Crops	...	7.71	63.73	(14.05)	10.38	44.13	5.29	11.90	7.68	12.19	7.72
2. LIVESTOCK	...	6.98	(6.79)	13.44	3.36	(17.39)	2.12	3.91	5.82	2.41	(5.88)
3. POULTRY	...	19.22	(1.09)	4.01	1.59	13.07	11.91	9.19	14.19	14.91	17.74
4. FISHERY	...	3.05	0.75	6.84	5.22	5.66	3.60	5.80	4.71	0.30	5.41
5. FORESTRY	...	(1.97)	3.45	19.15	(26.51)	(28.18)	26.03	(0.69)	(1.20)	(8.19)	(3.41)
GROSS VALUE ADDED IN AGRICULTURE, FISHERY, & FORESTRY	...	4.91	4.39	5.52	2.58	4.94	7.98	4.96	4.15	4.51	4.67

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook. Years 1982 and 1989.
(d) National Accounts of the Philippines. December 1990.

{Financial Liberalization/TABLE-2A.wk1/12-03-91}

TABLE 2.5 (cont'd)

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1. AGRICULTURAL CROPS	3.30	3.33	(6.05)	3.98	5.59	3.90	(4.11)	1.07	2.84	(1.13)
Palay	3.31	4.23	(13.12)	7.72	11.04	5.02	(7.88)	5.05	5.42	(3.80)
Corn	3.25	1.87	(9.79)	7.06	15.51	5.89	4.12	3.53	2.12	7.18
Coconut incldg. Copra	6.32	(1.86)	(11.68)	(21.32)	49.16	28.24	(0.99)	(9.10)	(5.37)	1.10
Sugarcane	1.13	15.48	(26.62)	17.56	(37.76)	(6.51)	(9.55)	13.98	11.89	(6.04)
Banana	(5.81)	1.80	14.02	0.55	2.53	0.43	(6.10)	(2.85)	3.99	(8.68)
Other Crops	4.39	1.79	3.77	3.91	2.84	(0.64)	(3.51)	(0.42)	1.99	(0.45)
2. LIVESTOCK	4.56	4.78	7.59	(0.37)	(2.22)	7.99	6.53	9.62	10.35	8.09
3. POULTRY	19.90	11.95	13.18	4.35	(0.50)	(1.13)	7.66	11.42	9.56	9.41
4. FISHERY	6.60	2.95	3.60	(1.77)	2.15	2.92	1.91	4.23	4.39	6.18
5. FORESTRY	(15.22)	(16.34)	(16.68)	(6.59)	(7.71)	(7.37)	(0.92)	6.33	(8.27)	(6.17)
GROSS VALUE ADDED IN AGRI- CULTURE, FISHERY, & FORESTRY	4.00	3.13	(2.10)	2.27	3.32	3.27	(1.02)	3.57	4.29	2.19

Sources: (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Accounts Staff, Statistical Coordination Office
National Economic and Development Authority.
(c) Philippine Statistical Yearbook, Years 1982 and 1989.
(d) National Accounts of the Philippines, December 1990.

{Financial Liberalization/TABLE-2A.wk1/12-03-91}

TABLE 2.6 Value of Major Agriculture—Commodity Exports

Commodity	1970	%	1980	%	1990	%
Coconut Oil	96	20.5	567	28.6	361	25.9
Copra and Copra Meal Cake	94	20.1	128	6.5	74	5.3
Other Coconut Products	19	4.1	116	5.9	68	4.9
Centrifugal/Refined Sugar	188	40.2	624	31.5	111	8.0
Other Sugar Products	8	1.7	33	1.7	22	1.6
Pineapples	26	5.6	97	4.9	120	8.6
Bananas	5	1.1	114	5.8	149	10.7
Mangoes	1	0.2	7	0.4	15	1.1
Other Fruits and Vegetables	0	0.0	14	0.7	42	3.0
Coffee	0	0.0	45	2.3	8	0.6
Abaca Fibers	15	3.2	27	1.4	16	1.1
Tobacco Unmanufactured	14	3.0	29	1.5	20	1.4
Fish and Other Seafoods	2	0.4	107	5.4	294	21.1
Other Agro-Based Products	0	0.0	73	3.7	93	6.7
Total Agro-Based Exports	468	44.1	1,981	34.2	1,393	17.0
Total Non Agro-Based Export	594	55.9	3,807	65.8	6,793	83.0
TOTAL EXPORTS	1,062	100.0	5,788	100.0	8,186	100.0

Sources: (a) DER, Central Bank of the Philippines.
 (b) National Statistics Office.

Despite its significant contribution to the domestic economy, the agriculture sector is facing several problems. Labor productivity, which is measured as gross value-added per worker, has hardly improved at all (Table 2.7). There are strong indications that land resources have almost been exhausted. Farming in marginal lands using the "slash and burn" practice has recently intensified, threatening the environment. Access to formal credit has also become more difficult, thus denying farmers of the opportunity to buy inputs necessary for increased production.¹ The sector is also suffering from the lack of support infrastructure and services.

For instance, only 47 percent of the 3.12 million potentially irrigable land have been covered by irrigation facilities. Post harvest losses have remained high—10 percent of total production for rice and 30 percent for corn—due to inadequate post-harvest storage and processing facilities. Inadequate transport and shipping facilities and services also complicate the matter, making transport of grains from one region to another very costly.

2.2 Agricultural Policy

Despite the attention given by policy makers to the agriculture sector, the overall macroeconomic policy has been biased against it. This stems from the effort of past governments to accelerate the transition process from an agrarian to an industrial economy. In the 1950s, the government embarked on industrialization program anchored on import substitution policy. Infrastructure development had been concentrated mainly in the Metropolitan area where many of the import-substituting firms located themselves, leaving the rural, agricultural areas with very little infrastructure support. Agriculture pricing policy, the main feature of which was the price control imposed on rice and corn, had favored urban dwellers at the expense of the agriculture sector.

The government's intervention in agricultural production, marketing and international trade had intensified in the 1970s. As regards agricultural imports, the National Food Authority was given the sole authority to import without duties wheat and soybean. Importation of fertilizer was also heavily regulated. With regard to the export sector, the government became the sole buyer of sugar from sugar mills and the sole exporter of sugar through the Philippine Exchange, a government-owned corporation, and also controlled the coconut industry's milling capacity and the coconut oil exports through the United Coconut Oil Mills. The results of these interventions had been generally unfavorable. Balisacan (1991) pointed out that "In most cases, either the interventions were ineffective in achieving their avowed intentions or they yielded results quite contrary to these intentions" (p 3). He cited the study of de Dios (1984) showing "that the sugar monopoly resulted in: (a) a loss to producers of between ₱11 billion and ₱14 billion; (b) an addition to the marketing chain resulting in either increased mark-ups, a redistribution of income from actual traders to favored 'paper traders', or both; (c) no increase in trading efficiency and in foreign exchange earnings; (d) a loss of foreign exchange due to the financing of operations through foreign loans; and (e) a loss to the economy because of the

¹ More detailed discussions on this observation are presented in Chapter 4.

**TABLE 2.7 Gross Value Added, Employment and Labor Productivity in Agriculture,
Fishery and Forestry, 1970-90**
(in millions, at constant prices of 1972)

Year	Gross Value Added (in real pesos)	Number of Persons Employed	Labor Productivity
1970	14,734	5.614	2,624.5
1971	15,457	5.607	2,756.7
1972	16,135	6.338	2,545.8
1973	17,026	6.733	2,528.7
1974	17,465	7.066	2,471.7
1975	18,327	7.076	2,590.0
1976	19,789	7.599 a/	2,604.2
1977	20,770	7.276 a/	2,854.6
1978	21,631	8.119	2,664.2
1979	22,606	8.077	2,798.8
1980	23,662	8.674 a/	2,727.9
1981	24,608	9.050	2,719.1
1982	25,378	9.308	2,726.6
1983	24,845	9.631	2,579.7
1984	25,409	9.553	2,659.8
1985	26,252	9.738	2,695.8
1986	27,110	10.197	2,658.6
1987	26,834	9.730	2,757.9
1988	27,793	9.923	2,800.9
1989	28,986	9.900	2,927.9
1990	29,620	9.980 b/	2,967.9

Notes: a/ Integrated Quarterly Survey was not conducted for the following quarters: 1976-4th; 1977-2nd; 1980-1st and 2nd.
b/ Covers January, July, and October surveys only.

Source : (a) Economic and Social Statistics Office,
National Statistical Coordination Board.
(b) National Statistics Office (NSO).

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operating losses of the agencies, in spite of estimated gross profits enjoyed from the differential between export revenues and purchase costs" (p 4).

Trade policy had been biased against the agriculture sector. As shown in Table 2.8, the average effective protection rate (EPR) for the sector after the tariff reform program initiated in the early 1980s was -1 percent compared to 23 for the manufacturing sector.

The second half of the 1980s marked a big change in agricultural policy. The government embarked on a balanced agro-industrial development policy (BAIDS) which was embodied in the Updated Development Plan for 1985-1987. The Medium-Term Philippine Development Plan, 1987-1992 of the Aquino government also reflected the new policy towards the agriculture sector. In particular, it stresses on rural-based development strategy. More recently, the government launched the Countryside Agro-Industrial Development Strategy (CAIDS), the main emphasis of which is the modernization and increase in productivity, agriculture, growth and dispersal through agro-based industrialization, and the integration of economic activities in the country (Geron 1991).

TABLE 2.8 Average Effective Protection Rates (EPRs), in percent

	1979 (Pre-TRP)	1985 (Post-TRP)
All Sectors	24	12
Exportables	-3	-3
Importables	44	25
Primary and Agriculture	1	-1
Manufacturing	40	23
Exportables	1	1
Importables	50	33

Source: Medalla (1986).

Policy reforms introduced in the agriculture sector during the last five years were quite extensive. The government lifted price controls on key agricultural commodities and dismantled existing monopolies in trading and production. Trade and tariff reforms were also introduced, which were in the direction of greater trade liberalization. For the agriculture sector, the reforms included the lifting of the copra export ban, abolition of export taxes (except for logs), disbanding of meat importation cartels, privatization of wheat, flour and soybean trading, liberalization of fertilizer and tariff reduction of most inputs.

The changes in the nominal tariffs and removal of quantitative restrictions between 1986 and 1988 resulted in substantial changes in the EPR. Medalla (1990) found that the overall average EPR steadily decreased from 49.0 percent in 1985 to 36.5 percent in 1988. However, when she compared the EPR of the manufacturing sector with that of the agriculture sector with the latter as the numeraire (i.e., EPR for agriculture is set to 100), she found that the index rose from 119.3 in 1985 to 125.1 in 1986, then slightly went down to 124.3 in 1988. Thus, she concluded that "while the overall downward trend appears to be in the right direction, the relative changes, specifically between agriculture and manufacturing, seem to be contrary to the movement towards more uniform protection..." (p 25).

Further tariff reforms which are embodied in Executive Order (EO) 470 have recently been introduced. The gradual tariff rate reduction will be implemented within a five-year period to give domestic industries time to adjust and to lessen the tariff reforms' budgetary impact. The overall nominal average tariff rate will decline according to the following schedule: Year 1—from 28 to 25.96 percent; Year 2—24.27 percent; Year 3—22.56 percent Year 4—21.74 percent; and Year 5—20.07 percent.² At the final year, most of the tariff lines will cluster around the 10 to 30 percent range. Only 208 lines will remain at 50 percent rate, and quite a number of these is in agriculture. More specifically, the tariff rate for key farm products such as sugar, coconut oil, and staple grains, will remain at 50 percent. Looking at the nominal average tariff rates by sector, it would appear that agriculture receives the highest protection rate before and after EO 470. The simple average nominal protection rate for the agriculture sector will be reduced from 35 percent to 28.02 percent. On the other hand, the simple average nominal protection rate for the manufacturing sector will decline from 27 percent to 19.04 percent. It is to be noted, however, that many of the high tariff rates for agriculture are redundant or irrelevant. For export crops such as coconut, sugar, tobacco, pineapple, banana, coffee, cocoa and sugar, the high statutory tariffs are simply irrelevant. This is also true of many food commodities such as roots and tubers, fresh fish and many kinds of fruits, that are not internationally traded owing to prohibitive transport and handling costs.

The effective protection rate, which gives a more credible measure of protection since it also takes into account the tariff penalties the producers in a given industry have to suffer when buying protected inputs, shows a different picture. The manufacturing sector's average effective protection rate remains the highest at 28 percent, compared to that of agriculture which

²This is based on Clarete (1991).

is only 2 percent. In short, although there is a narrowing in the difference between the average effective protection rate of the manufacturing sector and the agriculture sector under EO 470, still the former is accorded much higher protection.

3. ISSUES IN FINANCIAL LIBERALIZATION³

In the late 1970s and early 1980s, several countries had liberalized their financial sector. Of course, the scope and speed of financial liberalization varied from country to country. More countries such as Indonesia and Thailand have joined the financial liberalization bandwagon in the most recent years. Still, other countries have continued the process of liberalizing their financial sector. The Philippines and Korea can be cited as examples here. So far, the results of financial liberalization are mixed. In some countries, notably the Southern Cone countries of Latin America, financial liberalization seemed to have failed (Diaz-Alejandro 1985), while in other countries, such as Korea and Singapore, it succeeded (Hyun 1990; Tyabji 1989). The Philippines' experience falls in the middle; that is, it cannot be considered a total success nor a total failure.

The differential results of financial liberalization initiated by several countries have been attributed to several factors (Corbo and de Melo 1987; McKinnon 1987). One was unfavorable external shocks. Another was inappropriate order of economic liberalization. Still another factor was macroeconomic mismanagement during the transition from a repressed regime to a liberal one.

This chapter discusses some general issues in financial liberalization that are important in analyzing the experience of the Philippines in deregulating its financial sector.

3.1 Directed Credit Policy

Directed credit policy is anchored on the assumption that developing countries have imperfect and inefficient financial markets; hence, state intervention is required to direct the flow of credit to the preferred or high priority sectors (Khatkhate and Villanueva 1978). In an imperfect financial market, private profitability and social profitability from loans granted to different sectors greatly differ, which may be attributed to the following three factors: (1) banks may overestimate the risk, administration, and collection costs associated with extending loans to high priority sectors; (2) banks' desired rate of return on loans may be higher than the correct marginal social rate of time preference; and (3) banks may not take into consideration the external benefits which expansion in the high priority sectors will yield for the rest of the economy.

Governments in LDCs had used various instruments to direct the flow of credit to the high priority sectors. These include, among others, imposing a general ceiling on lending rate, giving lower rediscount rate to priority sectors, requiring banks to allocate a certain proportion of their loans to priority sectors, creating specialized banks to serve the credit needs of high

³This partly draws on Lamberte (1991a).

priority sectors, and establishing special credit guarantee programs for high priority sectors. Oftentimes, these were all carried out at the same time.

Critics of directed credit policy have appealed to both theory and facts to point out its untenability and adverse effects on the financial markets (e.g., McKinnon 1973, Shaw 1973, Kapur 1976). Their main contention is that it has repressed the financial system. As a consequence of the ceilings on lending rate that are below the market-clearing rate, the deposit rates have to be kept low to make banks profitable, thereby causing financial disintermediation. The lack of loanable funds forces potential investors to rely more on self-finance, and this is greatly felt by some sectors of the economy including those considered by government as high priority sectors.

The lack of funds flowing to priority sectors oftentimes induces monetary authorities to institute a very liberal rediscounting policy. This unnecessarily raises money supply, which in turn causes high inflation rate. The high inflation rate produces a negative real rate on deposits that ultimately results in more financial disintermediation.

The Philippine experience with directed credit policy seems to support this hypothesis (Lamberte 1985; and Lamberte and Lim 1987). The subsidies given by the Philippine government to banks through some special credit programs to priority sectors had artificially made banks profitable. The result was a proliferation of banks that were induced by the apparent profitability of banking. When these subsidies were withdrawn, many banks folded up (Lamberte and Relampagos 1990). But this occurred only after banks were able to appropriate for themselves a large proportion of the subsidies attached to special credit programs that should have gone to borrowers (Esguerra 1981).

The directed credit policy is further weakened by the fungibility of funds (Adams 1984). That is, borrowers may use loans for purposes other than the ones stated in the loan contract. In this case, it is useless to direct credit to priority sectors. It is also argued that when interest-rate ceilings become more restrictive to make credit cheaper to priority (rationed) sectors, the size of the loans granted to the nonpriority (nonrationed) sectors increases, while that of priority sectors decreases (Gonzales-Vega 1984). Thus, directed credit policy further aggravates the problem of income inequality. The Philippine experience also seems to support this view. For instance, Llanto and Neri (1985) found that agricultural credit subsidy went mostly to larger farmers who could have easily obtained credit at commercial rates from banks.

3.2 Financial Liberalization: The McKinnon-Shaw View

McKinnon (1973) and Shaw (1973) were pushing financial liberalization as a way to develop the financial markets of LDCs. This would involve the freeing of the interest rate so that the supply of funds will equate with the demand for funds. For LDCs, this suggests an upward adjustment in the interest rate to reflect the true scarcity of funds. Also, other policies that tended to repress the financial system need to be dismantled.

McKinnon (1987) has buttressed his arguments with empirical evidence. Using a cross-country analysis of real interest rates and economic growth, he demonstrated that countries that have sustained higher real rates of interest had generally robust real financial growth leading to higher real economic growth. Other studies corroborated McKinnon's findings. For instance, an Asian Development Bank study (1985) found that an incremental output-capital ratio was positively associated with the real deposit rate, suggesting that interest rate has a favorable effect on investment efficiency. The relationship between financial and economic development within a country has been closely examined by Fritz (1984). In the case of the Philippines, for instance, he found that financial intermediation "causes" (in the Granger sense) economic growth at an early stage of development, and the causation is reversed at a later stage. This seems to follow Patrick's (1966) view that the supply-leading impetus is necessary at the initial stages of development, but is gradually replaced by demand-following approach as the process of real growth occurs.

In the early 1980s, a financial liberalization fever caught several countries. It could largely be attributed to the IMF and the World Bank which started to put emphasis on financial liberalization in their programs. It is to be noted that the world entered the decade of the 1980s when the effects of the second oil shock was mostly felt, and many countries including the Philippines had to run to the IMF and/or the World Bank for financial assistance to enable them to restructure or stabilize their economies.

The McKinnon-Shaw view has been challenged by several authors, notably Wijnbergen (1983), Taylor (1983) and Diaz-Alejandro (1985). Wijnbergen developed a model that explicitly incorporated an asset market structure consisting of bank deposits, "unproductive" assets such as gold, cash, commodity stocks, etc., and curb market loans. In the McKinnon-Shaw view, it is assumed that deposits and "unproductive" assets are close substitutes so that an increase in deposit rate would cause a portfolio shift from "unproductive" assets to deposits. In his empirical analysis using Korean data, Wijnbergen found that the substitution between deposits and curb market loans is of more importance than between currency and time deposits. Since deposits with the banking system are subject to reserve requirements, the shift from curb market (which provides one for one intermediation) to deposits would cause a decline in the total supply of funds to the business sector.

That it is not so easy to restructure the economy is captured in the title of Diaz-Alejandro's article: "Good-Bye Financial Repression, Hello Financial Crash." The Southern Cone Countries of Latin America, namely Argentina, Chile and Uruguay introduced wide ranging liberalization reforms between the second half of the 1970s and the first half of the 1980s, of course, with varying timing and intensity (Corbo and de Melo 1987). Interest rates were deregulated at the same time that anti-inflationary measures were introduced. Real interest rates shot up to unprecedented levels. McKinnon (1987) attributed the high interest rates to the breakdown of proper financial supervision over the banking systems of the Southern Cone. Bad loans that had been rolled over several times constituted a large proportion in the loan portfolio of banks, creating what Harberger (1985) calls a "false" demand for credit. Eventually, several

banks collapsed. Corbo and de Melo pointed out an important lesson that can be drawn from the experience of the Southern Cone, captured in the following words:⁴

"The fourth lesson is that each country would have benefitted from closer scrutiny of its banks. There is a crucial distinction between wholesale liberalization of financial markets and properly monitored deregulation. A clear understanding of this distinction could at least have mitigated several unfortunate developments:

- In Chile, banks allowed the debt of affiliated firms to rise even though these firms were doing badly and should have been forced to liquidate. Hence less credit was available for more profitable independent firms (Galvez and Tybout 1985).
- Bankers suddenly placed in a free market environment failed to recognize that the increase in the interest rates tended to redirect their loans away from low-risk, low-return activities, resulting in 'adverse selection' (Stiglitz and Weiss 1981). Better bank monitoring might have resulted in less upward pressure on lending rates.
- De facto deposit insurance provided incentives for undue risk-taking. Banks with poor portfolios were able to attract new funds by raising deposit rates, thereby forcing less-risky banks to match these rates" (p 137).

3.3 The Emerging Views

The failure of the financial liberalization efforts in several countries has prompted many economists to rethink their theories. There was a consensus that liberalization per se is not doomed to failure. Several countries did it and emerged successful. But the execution of it is not as simple as first thought out to be. Many have recognized the need to closely examine the context within which liberalization is being introduced. In particular, it has been noted that a certain degree of stability must first be achieved by the economy before any attempt at liberalization is going to be made. Otherwise, stabilization takes precedence over liberalization. Also, many have recognized the importance of examining closely the process of liberalization and of managing it properly. Thus, stress is being made on the order and speed of economic liberalization. There is a consensus that domestic markets be deregulated first to ensure that resources are reallocated more efficiently. The liberalization of the current account of the balance of payments is to follow. The last to be liberalized is the capital account of the balance of payments.

⁴ We have mentioned here only one of the five lessons drawn by Corbo and de Melo (1987) from the experience of the Southern Cone of Latin America.

With respect to financial liberalization, Lanyi and Saracoglu (1983) have suggested that lending rates be liberalized first before deposit rates. An adjustment of deposit rates well in advance of the lending rates would result in losses to banks, and if these losses are disproportionately large, banks would collapse. Even a simultaneous deregulation of the lending and deposit rates would be awfully dangerous to banks since interest rates on savings deposits will immediately be adjusted while those on term loans cannot be altered before maturity unless floating interest rates on those loans have been applied.

McKinnon (1987) has recently taken a different view of financial liberalization. While still pushing for a liberal financial policy and cautioning policy makers against going back to the financial repression syndrome, he takes the view that in the presence of macroeconomic instability and the moral hazard in banks, an interest rate ceiling on loans is in order. In Stiglitz and Weiss' (1981) model, both the "adverse risk selection" and "incentive effect" induce banks to limit voluntarily the interest rate charged to any one class of borrowers in order to maximize expected profits. McKinnon has modified this model by introducing moral hazard problem under the situation of macroeconomic instability, and has obtained an entirely different result. In particular, if the government committed itself implicitly or explicitly to provide deposit insurance, a bank may be induced to undertake very risky lending at extraordinarily high real rates on interest. He pointed out that:

"in the presence of macroeconomic instability, which inevitably creates positive covariance in the default rates of the bank's borrowers, moral hazard on the part of the bank itself becomes a very serious problem. With its own future profit now a random variable, our loosely regulated bank with inadequate loan-loss provisions has undue incentive to make high interest (and therefore risky) loans knowing ex ante that a favorable macroeconomic outcome will lead to very high profits—and that it can walk away from heavy losses" (McKinnon 1987; p. 408).

Since the monetary authority will ultimately bear the burden of an unfavorable outcome, it therefore has the obligation to institute measures to reduce bank's incentive to lend to risky projects; and setting interest ceilings on loans is one of those measures. However, McKinnon considers this only as a "second best" response. Still, instituting prudential regulations is considered the best approach.

In conclusion, the views on financial policy have apparently swung from one extreme end to the other, with the most recent view taking the middle ground in view of the need to manage the transition from a repressed financial regime to a more liberal one.

4. EVOLUTION OF THE GENERAL FINANCIAL AND AGRICULTURAL CREDIT POLICY IN THE PHILIPPINES

This chapter first traces the evolution of the general financial and agricultural credit policy in the Philippines. It then analyzes the overall performance of the financial system with special reference to agricultural credit.

4.1 Financial and Agricultural Credit Policy

4.1.1 Period of Directed Credit Policy

Up until 1985, the Philippines pursued a "supply-led"⁵ financial policy, which was characterized by liberal provision of credit to priority sectors of the economy. Being considered a priority sector, the agriculture sector seemed to have been favored by this policy.

At the turn of the 20th century, the government established the First Agricultural Bank, which accepted deposits but specialized in providing secured agricultural loans. It was later on absorbed by the Philippine National Bank which was created in 1916. After the establishment of the Central Bank in 1949, the government had further intensified its direct and indirect intervention in the agricultural credit market. In particular, the Central Bank pursued a selective credit policy, whereby loans at highly subsidized rates were directed to priority sectors through highly specialized financial institutions. Since commercial banks were not lending to the agriculture sector, the government created the rural banking system. Massive government subsidies, including capital and liquidity subsidy through the rediscounting window of the Central Bank, were given to rural banks to encourage local investors to set up rural banks in rural areas of the country.

The 1970s witnessed the unprecedented growth in the number of special credit programs for the agriculture sector (Table 4.1). The prescribed maximum lending rates for these programs, which ranged between 3 and 17 percent, were substantially below the prevailing market rates. A good number of them could be rediscounted with the Central Bank. Interestingly, some of them were supported by multi-lateral agencies such as the World Bank and the Asian Development Bank. Many of these special credit programs were administered by non-bank government agencies which did not have the expertise in lending. They exerted so much effort in disbursing the funds to targeted beneficiaries but did not exert the same amount of effort to collect those loans. Thus, most of these programs experienced dismal repayment record, which ultimately undermined their sustainability. For instance, under the Masagana-99 program the total number of farmers covered reached a peak of 36.4 percent of the small rice farmers and 47.2 percent of the potential rice farmers in the mid-70s. This is not surprising

⁵This term was coined by Patrick (1966). It suggests a causal relationship running from financial sector to the real sector. Specifically, it argues that the creation of financial institutions and the supply of their financial assets, liabilities, and related financial services be done in advance of demand for them, especially the demand for entrepreneurs in the modern or growth-inducing sectors.

**TABLE 4.1 Summary List of Agricultural Credit Programs
by Source of Fund Category**

P R O G R A M	YEAR IMPLEMENTED	YEAR PROJ AGMT TERMINATED	NO. OF YEARS IN OPERATION	IMPLEMENTING AGENCY	LENDING CHANNEL(S)	LOANS AMOUNT (PH)	GRANTED PERCENT SHARE	REPAYMENT RATE
I. Government Funded with CB Rediscounting (GPR)								
1. M-99	1973		12	MAF/NFAC	PNB, RBs, LBP	5807.6	48.11	82.3
2. Cotton Financing Program	1974		11	PCC, CB-SES III	TRB, RBs, LBP Thrift Banks(TBs)	88.0	0.73	77.7
3. CB-MRCS Supervised Experienced Education Program	1974		11	MRCS, CB-SES III		3.3	0.03	98.2
4. Gulayan sa Kalusugan	1975		10	NFAC	RBs	62.0	0.51	84.4
5. Bahabang Barangay						972.2	8.05	n.a.
a. Fattening	1978		7	BAI, CB-SES III	RBs			
b. Cow / Calf	1981		4	BAI, CB-SES III	RBs			
6. Biyayang Dagat	1979		6	BFAR	PNB, RBs, DBP	101.7	0.84	25.0
7. Supervised Credit for Orchard Crops	1982		3	CB-SES III	RBs	36.1	0.30	n.a.
8. Maisagana	1982		3	MAF/NFAC	PNB, RBs, LBP	192.3	1.59	62.1
9. Pukyutang Barangay	1982		3	CB-SES III	RBs			
10. Kalabaw ng Barangay	1983		2	BAI, CB-SES III	RBs, TBs	3.7	0.03	n.a.
11. GFSNE	1984		1	KKK-PCA, CB, Accredited Banks	Accredited Financial Institutions	149.5	1.24	
SUB-TOTAL						7416.4	61.44	

TABLE 4.1 (cont'd)

PROGRAM	YEAR IMPLEMENTED	YEAR PROJ AGMT TERMINATED	NO. OF YEARS IN OPERATION	IMPLEMENTING AGENCY	LENDING CHANNEL(S)	LOANS AMOUNT (PM)	GRANTED PERCENT SHARE	REPAYMENT RATE
II. Government Funded, No Rediscounting but Administered by CB (GFNR)								
A. Domestic								
1. IAF Virginia/Burley Tobacco Financing Program	1976		9	PVTA, CB-SES III	RBs, SLAs	112.6	0.93	87.4
2. SARF	1978		7	MAF	PNB, RBs, LBP	106.6	0.88	66.6
3. KASAKA	1982		3	CB, MAF/NFAC	RBs	6.0	0.05	n.a.
4. IRF	1983		2	CB, MAF/NFAC	RBs	5.5	0.04	97.4
5. IRPP	1984		1	MAF/NFAC	NFA, Input Suppliers (Cyanamid)	336.4	2.79	32.2
6. ECPAP	1984		1	MAF/NFAC	PNB, RBs, LBP PPI, Cyanamid	193.0	1.60	60.3
7. KKK	1982		3	MHS	PNB, DBP, LBP	833.7	6.90	n.a.
S U B - T O T A L						1593.8	13.20	
B. Foreign Sources								
1. MAR Second Rural Development Land Resettlement Project	1978		7	MAF, MLGCD MPH, MPW, MOH, CB, NFA, NIA	RBs, CRBs, SLAs	24.3	0.20	n.a.
2. CMP	1979		6	BCOD	RBs	42.9	0.36	n.a.
3. Fourth CB-IBRD Rural Credit Project	1979		6	CB	RBs	601.1	5.64	n.a.
4. Aquaculture Development Project	1984	1990	1	CB, MAF, BFAR	RBs	8.2	0.07	n.a.
S U B - T O T A L						756.5	6.27	n.a.

TABLE 4.1 (cont'd)

P R O G R A M	YEAR	YEAR	NO. OF	IMPLEMENTING	LENDING	LOANS	GRANTED	REPAYMENT	
	IMPLEMENTED	PROJ	YEARS IN						AGENCY
			OPERATION			(PM)	SHARE		
			TERMINATED						
III. Government Funded but Administered and/or Channeled through Other Banks (GFOB)									
A. Domestic Sources									
1. Pagkain ng Bayan	1973		12	Exec. Committee, National Advisory Council, Ministry of Finance, NFA, MAF, MAR, BED, BAEcon, Prov'l. and City Gov't's.	PNB	21.7	0.18	41.4	
2. KKK-Local Government Special Fund Program	1982		3	Ministry of Loc. Gov't's., MHS	PNB	164.3	1.36	27.0	
S U B - T O T A L						186.0	1.54		
B. Foreign Sources									
1. Agrarian Reform IEDP	1978		7	LBP, MAR, MLGCD, MAF; DBP	LBP, DBP	179.3	1.48	39.3	
2. DBP-IBRD Smallholders Tree Farming	1978			DBP	DBP	40.6	0.34		
3. Small Farmer Dev't. Field Action Project (MAO-FAO-ASSARD)	1979		6	LBP / MAR	LBP	2.9	0.02		
4. SNSP	1979		6	BCOD	CRBs/PNB	5.8	0.05		
5. Third Livestock and Fishery Dev't. Proj.	1980	1984	5	DBP	DBP	547.0	4.53		
6. Laguna de Bay Fishpen Development Project	1979		6	Laguna Lake Development Authority	DBP	67.1	0.56		
S U B - T O T A L						1614.7	*/	13.38	*/

Note: */ Includes the DBP-IBRD Livestock Development Project, the DBP-IBRD Fishpond and Marine Project, and the Rehabilitation Program of Fishing Industry in the Philippines.

TABLE 4.1 (cont'd)

PROGRAM	YEAR IMPLEMENTED	YEAR PROJ AGMT TERMINATED	NO. OF YEARS IN OPERATION	IMPLEMENTING AGENCY	LENDING CHANNEL(S)	LOANS AMOUNT (PM)	GRANTED PERCENT SHARE	REPAYMENT RATE
IV. Government Funded but Administered and/or Channeled through Non-Bank Institutions (GFNB)								
A. Domestic Sources								
1. PTA Supervised Farm Credit Assistance	1975		10	PTA	PTA	10.3	0.08	60.7
2. Sugar Workers' Fund	1982		3	MOLE	BRW	1.7	0.01	
3. BRW-RPB Livelihood Prg. for Sugar Workers	1983		2	MOLE, RPB	BRW	1.3	0.11	
4. CDLF	1973		12	CDLF / MAF	CDLF / MAF	147.0	1.22	16.4
5. MAR Loan Assistance Program				MAR	MAR	0.4	<0.005	
S U B - T O T A L						160.7	1.33	
B. Foreign Sources								
1. FSDC Irrigation System/ Infrastructure Development	1975		10	FSDC	FSDC	58.8	0.49	39.9
2. FSDC KAISA Enterprise Development	1980		5	FSDC	FSDC	248.2	2.06	
3. AITP	1983		2	TRC	TRC	36.4	0.30	100.0
S U B - T O T A L						343.4	2.80	
G R A N D T O T A L						12071.5	100.00	

Source: National Development Authority (NRDA), 1986.

since the program had just started, and lured by the relatively easy access to it, many farmers switched from the informal credit markets to this institutional source of credit. By 1980, the actual coverage dropped to only 3.7 percent of the total small rice farmers and 4.8 percent of the potential rice farmers. Concomitant with this was the rise in the past due ratio reaching as high as 84 percent.

Proponents of the special credit programs had argued that despite the high default rate, these programs were successful in motivating the agriculture sector to adopt more efficient, modern technology. However, the overwhelming pieces of evidence do not support this view. For instance, many farmers adopted high-yielding varieties even before the introduction of subsidized credit programs such as the Masagana-99 program. Still, other proponents of the special credit programs pointed out the favorable equity impact of such program. Again, the pieces of evidence do not support this view. For instance, Esguerra (1981) found that the credit subsidy of the Masagana-99 program went to large farmers. David (1983) added that the Masagana-99 program favored the irrigated rice farmers who are in general richer farmers than those non-irrigated rice farmers.

Aside from rediscounting and special credit programs, there were indirect forms of government interventions in the agricultural credit markets. One is the agri/agra loan quota scheme. This is designed to augment the funds for agricultural lending by mandating all banking institutions to set aside 25 percent of their net incremental loanable funds for agricultural lending, 10 percent of which is to be lent to agrarian reform beneficiaries and 15 percent for general agricultural lending. As found by TBAC (1985), this scheme had very little impact on the flow of credit to the agriculture sector. Most urban-based banks which do not have the capability to lend to the agriculture sector complied with the requirement by buying eligible government securities.

The deposit-retention scheme was another policy tool of the government to augment the funds for the agriculture sector. The scheme requires all branches and extension offices of commercial and thrift banks operating outside of Metro Manila to allot at least 75 percent of the total deposits generated in a particular region or service area for investment in the same area. Most banks did not comply with this requirement (Lamberte 1987), suggesting that it is still profitable for banks to transfer the funds to urban areas and pay the penalty.

4.1.2 Financial Liberalization Period

A significant part of the current rules and regulations covering the financial sector can be traced to the financial reforms initiated in the early 1980s. Others were introduced in the second half of the 1980s and the 1990s to complement the reforms done earlier.

The 1980 set of financial reforms is so far the broadest initiative undertaken by the Philippines in the financial sector. Prior to these reforms, it was clear that the financial system was not responding to the requirements of a rapidly growing economy. There was lack of competition in the financial markets. Funds mobilized by the financial system were severely

inadequate. Moreover, whatever funds available therein were mostly of shorter maturity. Because of the inadequate supply of long term funds, business enterprises used money market funds for permanent working capital and for the acquisition of fixed assets. Indeed, many corporate giants saw the need to establish in-house financial institutions to ensure themselves of adequate supply of funds (Lamberte 1989). Many of these financial institutions were engaged in money market activities. A significant volume of funds in the 1970s were raised in the money markets because to surplus units, money market instruments whose rates were not yet subjected to any ceiling were more attractive than traditional deposits in terms of return and liquidity.

The foregoing were the main issues which the 1980 financial reforms attempted to address. In particular, the reforms sought to foster competitive conditions in the financial markets and improve the availability of medium- and long-term funds to the industrial sector. The following is a more detailed discussion on the major aspects of the financial reforms effected in the 1980s and 1990s. More attention will be given to the banking system.

Structure of the Financial System. The financial system has been re-structured to make it more competitive. This was done by reducing functional differentiation among different types of financial institutions. At present, there are five types of banks in the Philippines. These are: (1) universal banks or banks with expanded commercial banking functions; (2) ordinary commercial banks; (3) thrift banks; (4) rural banks; and (5) specialized government banks. Table 4.2 summarizes the authorized functions and activities of the various types of banks, except the specialized government banks. It can immediately be observed that there is a reduced differentiation among the different bank categories as far as their functions are concerned. For instance, the term "commercial bank" was usually applied to a financial institution that accepted demand deposits subject to withdrawal by check. This definition would no longer be completely valid in the Philippine context since other types of banks may now be authorized by the Central Bank to accept demand deposits provided that they satisfy certain prerequisites. Also, enforced specialization has been eliminated. For instance, rural banks, which before were allowed to lend only to small farmers, may now lend to medium-sized farm and non-farm enterprises. The creation of universal banks is one of the important aspects of the 1980 financial reforms. The idea is to make a "one-stop banking facility" which offers clients a broad range of financial services so that they do not have to go to different financial institutions for their various financial needs. Thus, universal banks have been authorized to perform some functions, such as securities underwriting and syndication activities, which before were reserved only to investment houses. Aside from investment functions, they are also allowed to have direct equity investments in allied and non-allied undertakings with some restrictions to ensure the flow of long-term funds into the economy.

The functions and range of services offered by ordinary commercial banks have also been broadened to include non-traditional functions of a commercial bank. However, unlike universal banks, they have restricted investment functions. More specifically, they are not authorized to perform securities underwriting and syndication activities. In addition, their equity investments in allied undertakings are more restricted compared to universal banks. They are

TABLE 4.2 Authorized Activities of Various Bank Categories Based on the Amended Banking Laws

Authorized Activities	(1) Expanded Commercial Banks (Unibank)	(2) Commercial Banks (CBs)		(3) Thrift Banks			Rural Banks
		Domestic	Foreign	Savings & Mortgage Banks	Private Dev. Banks	Savings and Loan Association	
A. Commercial Banking Services							
1. Accept deposits	1	1	1	1	1	1	1
2. Issue LC's and accept drafts	1	1	1	a/	a/	a/	0
3. Discounting of promissory notes and commercial papers	1	1	1	1	1	1	1
4. Foreign exchange transactions	1	1	1	11	11	11	0
5. Lend money against security	1	1	1	1	1	1	1
B. Nationwide Branching Operations	1	1	1	1	1	1	1
C. Equity Investments in Allied Undertakings	11	11	11	11	11	11	11
D. Equity Investments in Non-Allied Undertakings	1	0	0	0	0	0	0
E. Trust Operation	11	11	11	11	11	11	11
F. Issue Real Estate and Chattel Mortgage, bonds Buy and Sell These for Its Own Account, Accept/Receive in Payment or as Amortization of Loan	1	1	1	1	1	1	1

TABLE 4.2 (cont'd)

Authorized Activities	(1)	(2)		(3)			Rural Banks
	Expanded Commercial Banks (Unbank)	Commercial Banks (CBs) Domestic	Foreign	Thrift Banks			
				Savings & Mortgage Banks	Private Dev. Banks	Savings and Loan Association	
G. Direct Borrowing with Central Bank	1	1	1	1	1	1	1
H. Activities of Investment Houses							
1. Securities underwriting	1	0	0	0	0	0	0
2. Syndication activities	1	1	1	1	1	1	1
3. Business development and project implementation	1	1	1	1	1	1	1
4. Financial Consultancy and Investment	1	1	1	1	1	1	1
5. Mergers and consolidation	1	1	1	1	1	1	1
6. Research and studies	1	1	1	1	1	1	1
7. Lease real and/or personal properties	0	0	0	0	0	0	0
III. Money Market Operation	b/	b/	b/	1/	b/	b/	b/
	1	1	1	0	0	0	0

1 - Authorized Activities

1) - Authorized but subjected to Monetary Board Approval

0 - Not authorized/prohibited

a/

Limited only to domestic LCs and drafts.

b/

The lending side may be done by all banks without prior CB approval.

The borrowing side (quasi-banking) may be exercised only with prior CB approval for all bank.

Sources: a) .PDCP, "Universal Banking in the Philippines," Philippine Business Review Vol. 13, 1980.

b) Central Bank Circular (various issues).

prohibited from investing in non-allied activities. Table 4.3 compares the limits of equity investments in ~~allied~~ and non-allied undertakings between universal banks and ordinary commercial banks. The main point here is that with the deregulation in equity investment by universal banks, the agriculture sector will be one of the sectors which will stand to benefit. In particular, it has been expected that some universal banks will infuse equity in some rural banks and improve their banking operations. So far, only one universal bank bought several rural banks and tried to coordinate their banking activities. Others preferred to open branches in some rural areas. Private development banks, savings and mortgage banks, and stock savings and loan associations used to perform different functions. For instance, private development banks specialized in extending long-term loans to industrial and commercial enterprises, whereas savings and mortgage banks specialized in providing housing and consumer loans. With the 1980 financial reforms, the functions of these three categories of banks have been standardized, and they are now called thrift banks, although individual banks falling in any of the three categories may retain their established identity. Thrift banks may secure authority from the Central Bank to have additional functions, such as demand deposit account operations, issuance of domestic L/Cs, undertaking trust services, etc., after meeting certain requirements prescribed by the Central Bank for each additional function. In short, thrift banks may have "full domestic banking" functions, which means that they actually operate like a commercial bank but without international banking operations. The competitiveness of thrift banks is further enhanced with the newly-introduced regulation which allows those with minimum paid-in capital of ₱50 million to accept currency deposits. The regulation that limits their total amount of unsecured loans to only 10 percent of their total loan portfolio was removed in 1990 to make them at par with commercial banks. Many of the thrift banks, especially those located outside Metro Manila, have played an important role in delivering credit to the agriculture sector.

Although rural banking as a category remains, their functions and activities have also been broadened to enable them to compete with other types of financial institutions. Whereas before they were merely unit banks, now they are allowed to have branches. This will enable them to reduce risk since they will be able to diversify their loan portfolio at least geographically. They have functions similar to thrift banks except that they are not allowed to open domestic L/Cs. At present, the Central Bank has not granted them the authority to undertake trust services.

Since the different bank categories have been given broader powers, the Central Bank has adjusted upwards the minimum capital requirements to ensure stability of individual banks. Table 4.4 presents the latest schedule of minimum capital requirements for each bank category.

TABLE 4.3 1980 Financial Reforms—Limits on Equity Investments by Banks*

Activities	Limits for Commercial Banks	Limits for Universal Banks
Allied Undertakings		
Financial Allied Undertakings		
Commercial Banks	30%	30%
Thrift Banks (private development banks, savings and mortgage banks, saving and loan banks, stock savings, etc.)	100%	100%
Rural Banks	100%	100%
Investment Houses	40%	100%
Others (leasing, credit card venture companies, etc.)	40%	100%
Non-Financial Allied Undertakings		
Warehousing Companies	100%	100%
Storage Companies	100%	100%
Safe Deposit Box Companies	100%	100%
Mutual Fund Mgt. Companies	100%	100%
Computer Service Companies	100%	100%
Insurance Agencies	100%	100%
Home Building/Development Companies	100%	100%
Agricultural Drying or Milling Companies	100%	100%
Non-Allied Undertakings		
Agriculture	0	35%
Manufacturing	0	35%
Public Utilities	0	35%

*Limits setting only a minority equity investment in a single enterprise can be waived upon the approval of the President.

**A universal bank or a commercial bank with expanded functions has a minimum capitalization of ₱1 billion.

Source: Central Bank Circular 739, pp. 50-57.

**TABLE 4.4 Minimum Capitalization of Private Domestic Banks and Non-Banks
Authorized to Perform Quasi Banking Activities (NBQB)**

Type of Institution	Minimum Capitalization (In PM)
1. Universal Banks	P1,500
2. Commercial Banks with FCDU License	750
3. Thrift Banks	150
(a) New Thrift Banks	
(i) Metro Manila	20
(ii) Other Places	10
(b) Existing Banks	
(i) Metro Manila	10
(ii) Other Places	5
4. Rural Banks	
(a) New	
(i) Metro Manila	20
(ii) First Class "A" Cities	10
(iii) Other Places	0.5
(b) Existing banks	
Existing rural banks are allowed to increase their capital within a period of time depending upon their number of years of operation.	

Source: Central Bank.

Merger/consolidation has been encouraged to meet the minimum capital requirement. The response to this ~~new~~ policy has been impressive. To date, ten private commercial banks and one government-controlled bank have been granted the license to operate as a universal bank.⁶ They have expanded the number of their affiliates/subsidiaries through merger/acquisition to position themselves well in this new competitive environment.

There are three specialized government banks, but one of them, the Philippine Amanah Bank that provided banking services to the Muslim communities, is now moribund. The two remaining ones are the Land Bank of the Philippines (LBP) and the Development Bank of the Philippines (DBP). LBP was established in 1963 to finance the acquisition by the Government of landed estates for division and resale to small landholders, as well as the purchase of landholding from landowners. After the entire country was declared in 1972 a land reform area, LBP was reorganized and strengthened. More significantly, it was given the authority to engage in commercial banking activities. In fact, it is actually a universal bank. As part of the reforms recently initiated by the government, LBP has already gradually phased out its retail lending activities and is now concentrating on wholesale lending so as not to compete with private banks. It has also opened a rediscounting facility to provide liquidity to rural banks. More recently, it has become the major conduit of government agricultural credit programs.

DBP's main function has been to help accelerate the industrialization in the country by providing industries with medium- and long-term funds. Previously, it was also given the task to develop the private development banking system in the country through direct equity investments in private development banks and some liquidity windows. Under the new charter, its powers have been broadened to take into account the recent financial reforms and to enable it to operate competitively. DBP has remained the major conduit of government credit programs for the industrial sector.

While the banking system was re-structured to encourage more competition, the policy on bank entry and branching had remained very restrictive. In fact, the Central Bank tried to reduce the number of banks by encouraging merger/consolidation. It was only in 1989 that this policy was changed. In particular, licensing of new banks has been liberalized. The opening of new branches has also been deregulated. More specifically, all restrictions on opening new branches in rural areas have been removed, while in urban areas and metropolitan areas, the Central Bank still retains its discretionary policy on branching in order to prevent any market concentration problems in a certain area. This is a big change compared to the previous Central Bank policy that stressed on limiting the opening of branches to avoid instability that might be brought about by too much competition in a certain area. Also, the prerequisite investment in low-yielding government securities to open branches that unduly increased cost to banks was removed in 1989, and a bidding process has replaced it. There is a bill being deliberated in Congress proposing to liberalize entry of foreign banks into the domestic banking system. With

⁶ One universal bank is not included here because it was closed in 1987. The government-owned commercial bank is now partially owned by the private sector.

its expected passage in 1992, the banking system will definitely undergo another restructuring. Banking competition is expected to spread into the rural areas.

Interest Rate Policy. Although the anti-usury law was abolished in the early 1970s, still the Central Bank administratively set all interest rates, up until 1981 when it began freeing the interest rates. The interest rate liberalization was done in several stages. In 1981, interest rate ceilings on all types of deposits and loans, except that of short-term loans, were lifted. The interest rate on short-term loans was finally lifted in 1983. It is to be noted that the sequence being followed in deregulating the interest rate did not follow those suggested by Lanyi and Saracoglu which was discussed in the previous chapter.

The rediscounting policy was changed in 1985 when the Central Bank started setting one rediscounting value equivalent to 80 percent of the value of the original loans and one rediscount rate for all eligible papers that is supposed to be aligned with the market rate. At present, the basis for determining the rediscount is the 90-day Manila Reference Rate (MRR90).⁷ The rediscount rate is re-evaluated and, if necessary, adjusted every quarter to reflect the prevailing cost of funds.

Credit Policies. Towards the second half of the 1980s, the policy on special credit programs has been changed. Firstly, the government has adopted the policy of aligning the interest rates on special credit programs with the market rates. Secondly, the funds of the 20 out of the 46 agricultural credit programs were consolidated and are now being used to beef up the existing credit guarantee and insurance programs of the government.⁸ And thirdly, special credit programs that used to be managed by the Central Bank have been transferred to the appropriate government financial institutions so that the Central Bank can now concentrate its efforts in the management of monetary aggregates and in bank supervision.

Portfolio Regulations. The deposit retention scheme policy has been relaxed since 1988. Firstly, the Central Bank has reduced the number of regional groupings from 12 to 3. This would allow banks to move funds in a much larger geographical area. Secondly, it narrowed down the definition of deposits. This effectively reduces the base for computing the amount to be raised to satisfy the regulation. And lastly, the Central Bank has allowed banks to use other methods of compliance. Specifically, the policy is deemed complied with if, in a particular region, the bank's lending for the financing of agricultural and export industries aggregated 60 percent of its deposits.

Another portfolio regulation is the requirement for all banks to allocate 25 percent of their total loanable funds to agriculture/agrarian reform beneficiaries. While the bill in Congress

⁷ The MRR90 is based on the weighted average of the interest rates on promissory notes and time deposits with a 90-day maturity.

⁸ This is called Comprehensive Agricultural Loan Fund (CALF) which is being managed by the Agricultural Credit Policy Council (ACPC).

that proposes to abolish this law has not yet been passed, the Central Bank, in the meantime, has suspended sanctions for non-compliance with this loan portfolio regulation. This in effect relaxes the said regulation.

Prudential Regulations. The 1980 financial reforms addressed bank stability in two closely related areas, namely size of capital and capital adequacy as reflected in the net worth to risk asset ratio. As already mentioned earlier, the minimum capital requirements for various types of banks had been raised several times. Those that are allowed to perform more functions have higher minimum capital requirement than those that have fewer functions. As regards capital adequacy, the definition of the net worth to risk asset ratio was clarified so that the true risk exposure of financial institutions can easily be monitored.

Despite the failure of several banks that occurred during the first half of the 1980s, nothing had been done to strengthen prudential regulations. The unwritten policy of the government during that period was not to allow any bank to fail. Towards the end of the 1980s, the Central Bank has started to strengthen its prudential regulations. Firstly, it declared a policy of not sustaining weak banks for unduly long periods. It will extend its financial assistance only to banks that are facing the problem of liquidity rather than of solvency. This sharply contrasts with the previous policy of providing assistance to any bank without examining first whether the bank is encountering a liquidity or solvency problem. The difficulty in securing assistance from the Central Bank will hopefully prompt banks to behave more prudently. Secondly, the Central Bank raised the minimum capital requirements for the different bank categories. Thirdly, the Central Bank introduced a number of measures to strengthen its bank supervision function. These include, among others, the improvement in commercial banks' reporting requirements and specific guidelines for asset valuation and loan loss provisions to tighten, standardize and apply criteria uniformly to all banks. And, lastly, it proposed several measures to curb insider abuse. These measures, however, need legislative actions.

Table 4.5 gives a summary of the measures that have been most recently implemented or proposed. Those that require legislative actions are all pending in Congress, and it may take more time before they are passed. Most of those measures pertain to the strengthening of prudential regulations and bank supervision.

4.2 Performance of the Financial System

This section examines the performance of the banking system in terms of deposit mobilization and allocation of credit during the period 1970-1990.⁹ This period covers both the period of financial repression (1970-1980) and liberalization (1981-1990).

⁹ This partly draws on Lamberte (1991b).

**TABLE 4.5 Action to Support Financial Sector Reforms Implementation Schedule as of
31 May 1992**

Action / Objective	S T A T U S
A. Amendment to the Central Bank and PDIC Acts	
1. Amend the Central Bank Act to:	
(a) Introduce cease and desist orders to add to CBP's available enforcement instruments;	These proposed amendments are included in a bill pending before Congress to amend the CB Charter
(b) Add appropriate new criteria for appointment of receivers for distressed banks to provide MB more flexibility in dealing with insolvent banks;	
(c) Curb insider abuse by eliminating secrecy accorded to deposit of DOSRI;	
(d) Empower CBP to institute civil suits against bank directors and officials accused of wrongdoing; and	
(e) Protect the regulatory staff against personal losses resulting from suits brought against them for action taken in performance of their duty.	
2. Strengthen arrangements for Depositor Protection	
(a) Appoint PDIC, by law, as receiver in all cases of bank failure and increase its capital. The objectives are to: (a) give a substantial role to PDIC in dealing with failed banks, (b) avoid allegations of conflict of interest when CBP acts as conservator, receiver and liquidator, and (c) empower PDIC to institute civil suits against bank directors and officials accused of wrongdoing.	Included in proposed amendments to the Central Bank charter as well as to the PDIC law pending before Congress. The House of Representatives has already approved its version of the proposed bill amending the PDIC Charter.

TABLE 4.5 (cont'd)

Action / Objective	S T A T U S
(b) Strengthen PDIC's management and staff to prepare PDIC for a substantially enlarged role.	<p>Part of the institutional strengthening plan approved by the Board of Directors of the Corporation will be fully implemented after the bills pending before Congress amending the PDIC Charter had been approved, and PDIC's capital had been increased. Managerial manpower is now being augmented preparatory to the transfer of responsibility over closed banks as soon as PDIC's Charter is amended.</p> <p>In the meantime, PDIC's paid-in capital had been raised to P2.0 billion. The Corporation had also been authorized to recruit additional personnel.</p>
<p>B. Strengthen Bank Supervision and Regulation</p> <p>-----</p>	
<p>1. Study and Improve :</p> <p>-----</p>	
(a) Commercial banks' reporting requirements;	<p>Final report of the Committee approved by the MB per its Res. No. 759 dated 01 September 1989. Various issuances to implement the decision now circularized.</p>
(b) Guidelines for asset valuation and loan loss provisions to tighten, standardize, and apply criteria uniformly to all banks;	<p>Report of the Committee approved by MB per its Res. No. 1093 dated 22 December 1989. Various issuances to implement the decision now circularized.</p>
(c) Guidelines for treatment of trust accounts by commercial banks to prevent abuses;	<p>Revised report of the Committee approved by the MB on 08 October 1990. Various issuances to implement the decision now circularized.</p>
(d) accounting principles governing preparation and reporting of banks' financial condition and operating results; and	<p>Revised report of the Committee approved by the MB on 07 January 1991. Various issuances to implement the decision now circularized.</p>

TABLE 4.5 (cont'd)

Action / Objective	S T A T U S
(e) Guidelines governing emergency loans to banks to ensure consistency and predictability in their application.	Guideline approved under MB Res. No. 245 dated 27 March 1989. However, circularization will wait until action on the bills filed in Congress pertaining to the same matter has been made. In the meantime, should there be a need for emergency loans, said guidelines will be applied.
C. Reduce Intermediation Costs	
1. By Fostering Competition in the Banking Industry	
(a) Lift moratorium on establishing new banks. Establish objectives qualifying criteria for new bank applicants.	Policy already approved by the MB per its Res. No. 244 dated 27 March 1989 and issued as Circular 1200 dated 16 May 1989.
(b) Review and improve the policy governing weak banks. The objectives would be not to sustain the weak banks for unduly long periods.	Policy already approved by the MB per its Res. No. 244 dated 27 March 1989 and issued as Circular 1200 dated 16 May 1989.
(c) Review and improve conditions governing opening of new branches.	Further liberalization of branching guidelines subject to prudential requirements circularized under Circular 1281 dated 15 April 1991 implementing MB Res. No. 411 dated 12 April 1991
D. Transfer of APEX AND IGLF programs to DBP and ALF to LBP from CBP.	The transfer of ALF to LBP and IGLF and APEX to DBP have now been effected.

TABLE 4.5 (cont'd)

Action / Objective	S T A T U S
E. By Improving Debt Collection and Insolvency Loans	
1. Amend laws and procedures governing debt recovery and real estate mortgages by: (a) reducing redemption period of six months, (b) eliminating distinction between bank and non-bank creditors in the case of judicial foreclosure, and (c) tightening the access to courts after an extra-judicial foreclosure.	The proposed bills amending present laws already endorsed to Congress.
2. Amend bankruptcy laws to (a) protect the reorganization process from subversion by seizure of assets by creditors, (b) give courts explicit authority to enable debtor enterprises to continue operation while reorganization proceeds, and (c) give SEC or another agency unambiguous power to appoint a trustee.	- do -
F. By Reducing Taxation on Financial Intermediation:	
1. Phase out Gross Receipts Tax (GRT)	The gradual phase-out of the Gross Receipt Tax at 1% p.a. is now pending at Congress. It has already passed the first reading.
2. Eliminate 20% Final Withholding Tax on Interbank deposits.	Presently, Interbank loan transactions are payable within five days, thus, not taxable.
3. Phase out implicit tax arising out of current reserve requirements.	
4. Eliminate preferential reserve requirements on long-term time deposits.	Approved under MB Res. No. 760 dated September 1, 1989 and circulated under CB Circular No. 1209 dated 01 September 1989.

43

TABLE 4.5 (cont'd)

Action / Objective	S T A T U S
G. Improve Fund Mobilization and Delivery of Term Funds	
1. Phase out Agri-Agra requirements to eliminate redundant (Agri) and unrealistic (Agri) lending targets and free banking sector from mandated credit programs.	A bill had been filed in Congress to eliminate the requirement for banks to allocate part of their loanable funds to Agri-Agra requirements. The CB had endorsed this bill.
2. Phase out CBP role in credit allocation programs.	Transfer of all loan programs administered by CB have now been implemented.
3. Adopt a general policy of market-oriented interest rates on all government sponsored loan programs and those funded by official borrowings, to eliminate subsidies and distortions.	Already incorporated in the Government's Statement of Policy and being implemented.
44 4. Reorient DBP to a wholesale bank with private sector orientation and substantially reduce present retail banking operations. The objective is for DBP to mobilize long-term funds both domestically and internationally and act as a market-maker in long-term paper. This objective cannot as yet be implemented due to some disagreement raised by the Commission on Audit on the terms of privatization.	<ol style="list-style-type: none"> 1. Funds to be used by DBP for wholesale banking now made available to DBP (such as IGLF and APEX). 2. Institutional strengthening prescribed to support this conversion to wholesale banking effected as follows: <ol style="list-style-type: none"> a. Capital Markets Department created. b. Vice President to head CND appointed. c. Financial Institutions Dept. created. d. Vice President to head PID appointed. 3. Privatization of branches which formed part of DBP's rehabilitation program was temporarily deferred due to questions raised by the Auditor. COP approved the hiring of a Privatization Advisor and Industrial Investment Credit Project was chosen. Evaluation still underway.

Source: Central Bank of the Philippines

{Financial Liberalization/IMPLSKED.wk1/12-04-91}

4.2.1 Deposit Mobilization

The trend in the volume of traditional deposits (i.e., demand, savings and time deposits) mobilized by the banking system during the period 1970-1990 is shown in Figure 4.1. Nominal deposits increased from ₱8.2 billion in 1970 to ₱345.4 billion in 1990. The annual growth rate during this period averaged 21 percent. Note, however, that the average nominal growth rate of total deposits was lower in the 1980s (19.1%) than in the 1970s (23.8%). In real terms, the trend in deposits show a different pattern. It remained more or less the same during the first three years of the 1970s. The decline of real deposits in 1974 was associated with the high inflation rate which occurred that year as a result of the first oil shock. This was followed by a sharp rise in real deposits that went on up until 1980. It was interrupted in 1981 when a liquidity crisis struck in the beginning of that year. It resumed its growth for the next two years. Real deposits dropped precipitously in 1984 and 1985 as the economy experienced its severest balance-of-payments crisis. Recovery started in 1987 and real deposits rose since then. The level of real deposits in 1990 already approximated that of 1983, the highest ever achieved before the balance-of-payments problem.

The performance of the banking system in mobilizing traditional deposits may be measured in terms of the ratio of total deposits to GNP. A high ratio indicates financial deepening or a high level of financial intermediation. The trend of the ratio of total deposits to GNP is shown in Figure 4.2. The ratio declined during the period 1971-1974, which means that disintermediation took place during this period, and rose during the period 1975-1980. The ratio fluctuated in the 1980s indicating several stresses encountered by the banking system during this period. As of 1990, the ratio of deposits to GNP stood at 30.5 percent, which is still way below the 35.3 percent that was achieved in 1983. The results strongly suggest that stability of the economy is an important requirement to a sustained rise in bank deposits. Note that on the average, the ratio in the 1980s (32.1) was much higher than that in the 1970s (18.8%), which means that the banking system was able to mobilize more savings from the private sector in the 1980s than in the 1970s despite a generally unstable economy.

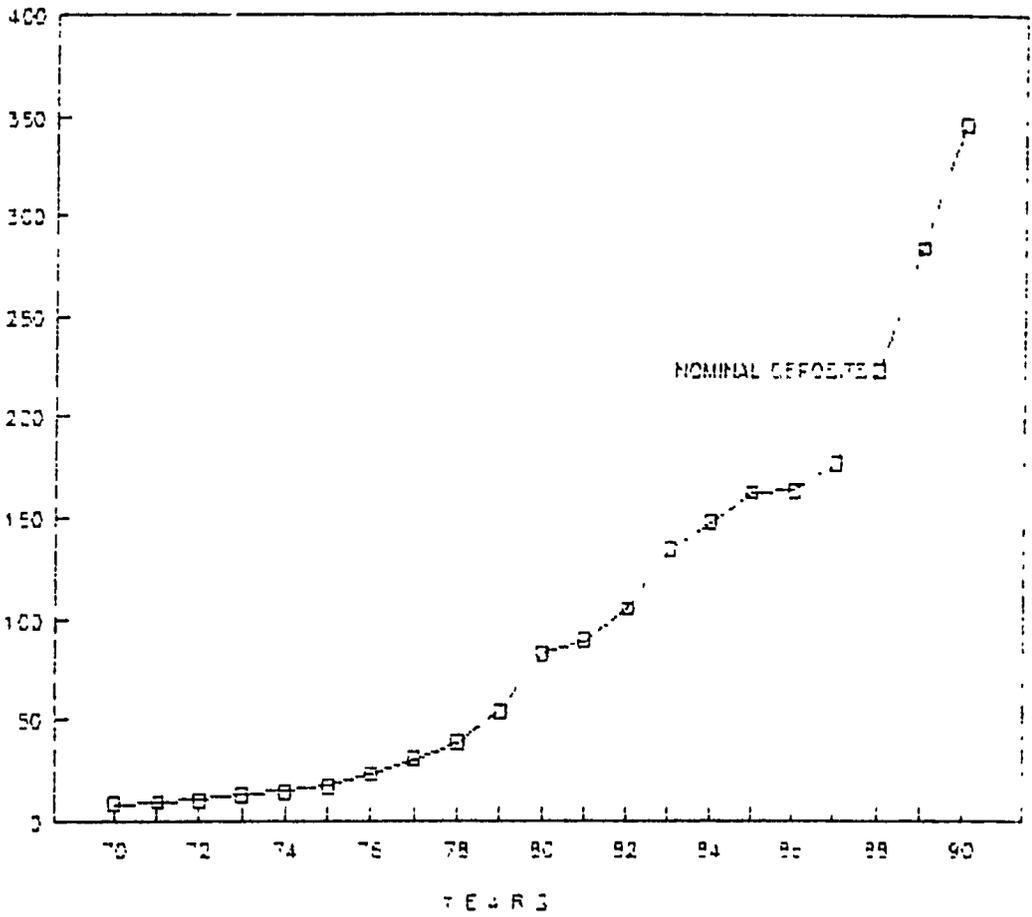
To determine how well the Philippines performed in mobilizing private financial savings, its performance is compared with those of other countries. In addition to the four ASEAN countries, 14 countries were randomly selected for this purpose. The data on deposits and GNP (or GDP as the case may be) were taken from the IMF International Financial Statistics. For bank deposits of the 18 countries, deposits in deposit money banks and other banking institutions (lines 24, 25, 44 and 45) were obtained. The ratio of deposits to GNP was regressed on real GNP (or GDP) expressed in U.S. dollars. Both variables are expected to have positive relationships. The estimated regression line traces the average performance of the country in mobilizing deposits. Countries whose ratios of deposits to GNP are above the regression line are said to perform better than the average, while those whose ratios are below the regression line are poor performers. The regression analysis was performed for two years, i.e., 1980 and 1989, to see if the Philippines has improved its performance relative to other countries since it started to liberalize its financial system. The results are shown in Figures 4.3 and 4.4 for 1980 and 1989, respectively.

FIGURE 4.1 Deposits of the Banking System, 1970-1990

(In Million Pesos)

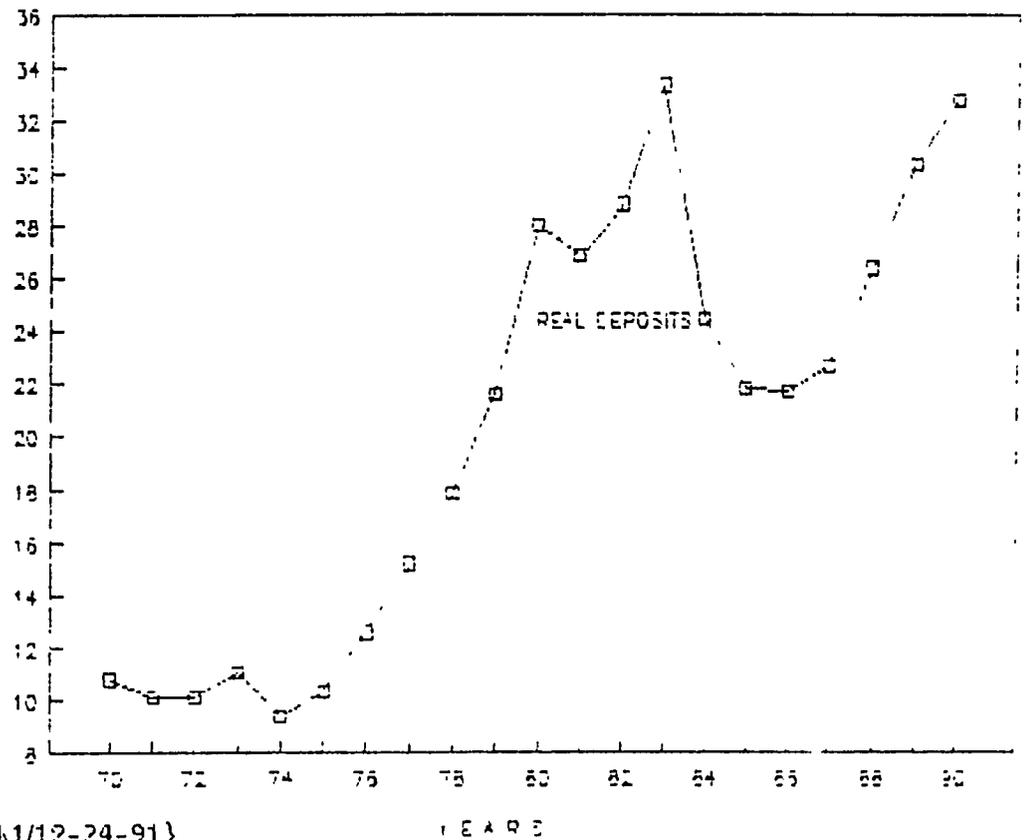
Year	Nominal Deposits
1970	8 155
1971	9 317
1972	10,121
1973	12,895
1974	14,635
1975	17,183
1976	22,906
1977	30,385
1978	38,386
1979	54,192
1980	82,543
1981	88,912
1982	105,040
1983	133,808
1984	147,594
1985	162,260
1986	163 110
1987	176,472
1988	220,123
1989	283,919
1990	345,396

DEPOSITS (In Billion Pesos)



Year	Real Deposits
1970	10 758 6
1971	10,083.3
1972	10,121 0
1973	11,068 7
1974	9,363 4
1975	10,295.4
1976	12,565.0
1977	15,162.2
1978	17 854 0
1979	21,633.5
1980	28,018.7
1981	26,853 5
1982	28,766.0
1983	33,285 6
1984	24 419 9
1985	21,808.6
1986	21 759 3
1987	22 681 6
1988	26,367.3
1989	30,336 8
1990	32,753.5

DEPOSITS (In Billion Pesos)



{Financial Liberalization/FIG1 wk1/12-24-91}

FIGURE 4.2 Ratio of Deposits to GNP, 1970-1990 (in percent)

Year	Deposit-to-GNP Ratio
1970	19.98
1971	18.78
1972	18.09
1973	17.86
1974	14.66
1975	15.02
1976	17.07
1977	19.83
1978	21.68
1979	24.86
1980	31.20
1981	29.28
1982	31.31
1983	35.33
1984	27.99
1985	27.15
1986	26.53
1987	25.09
1988	27.12
1989	29.52
1990	30.50

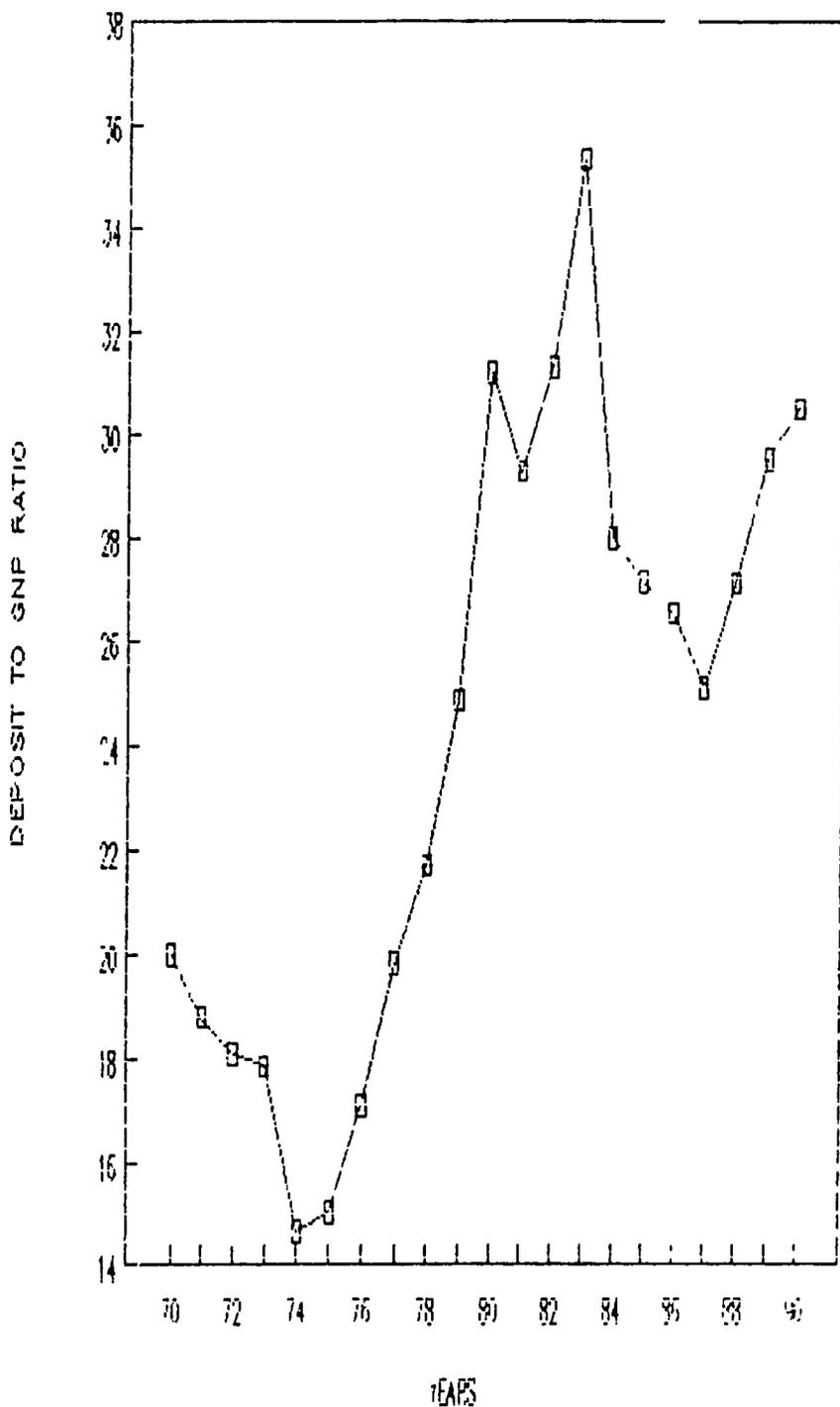
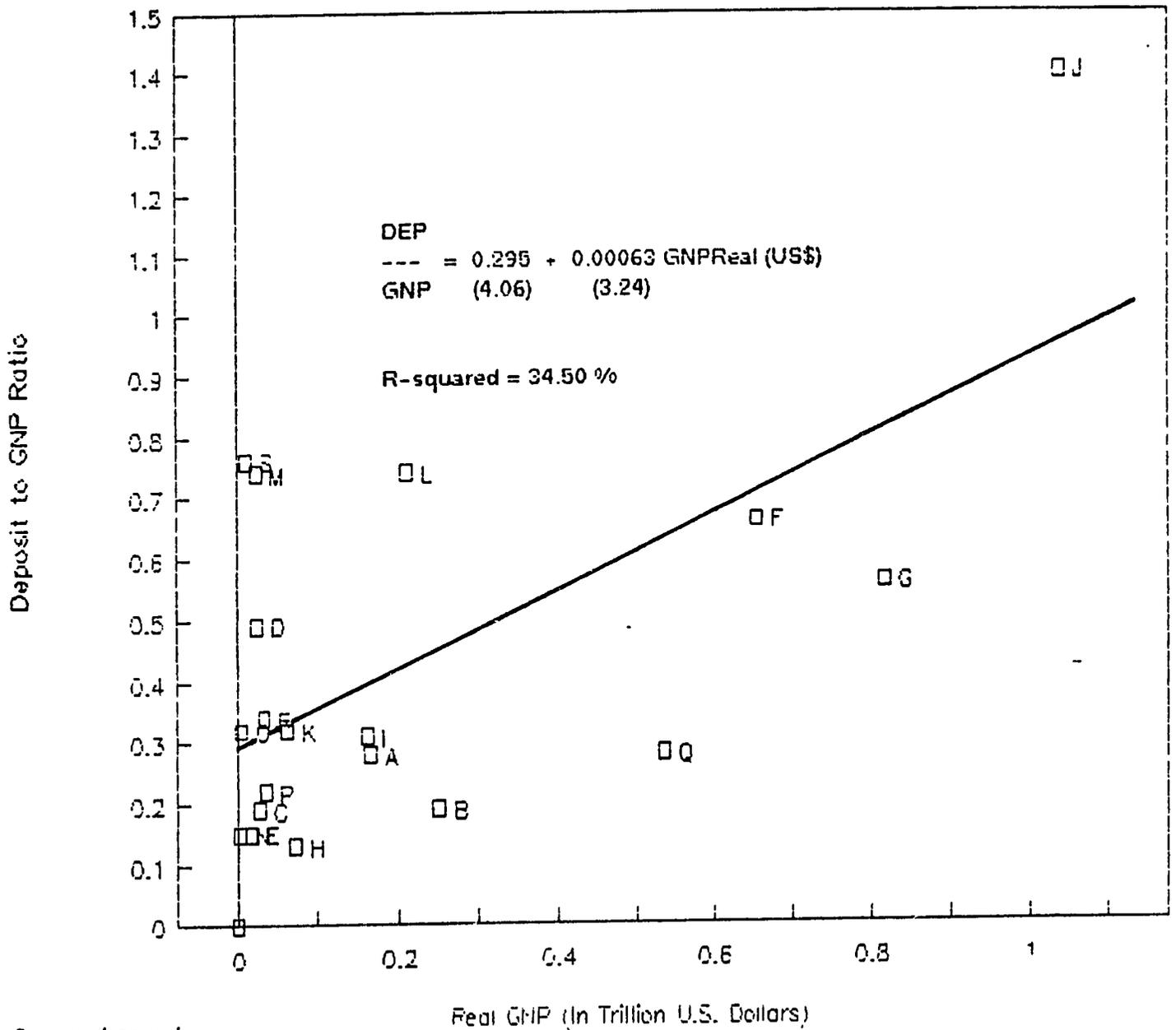


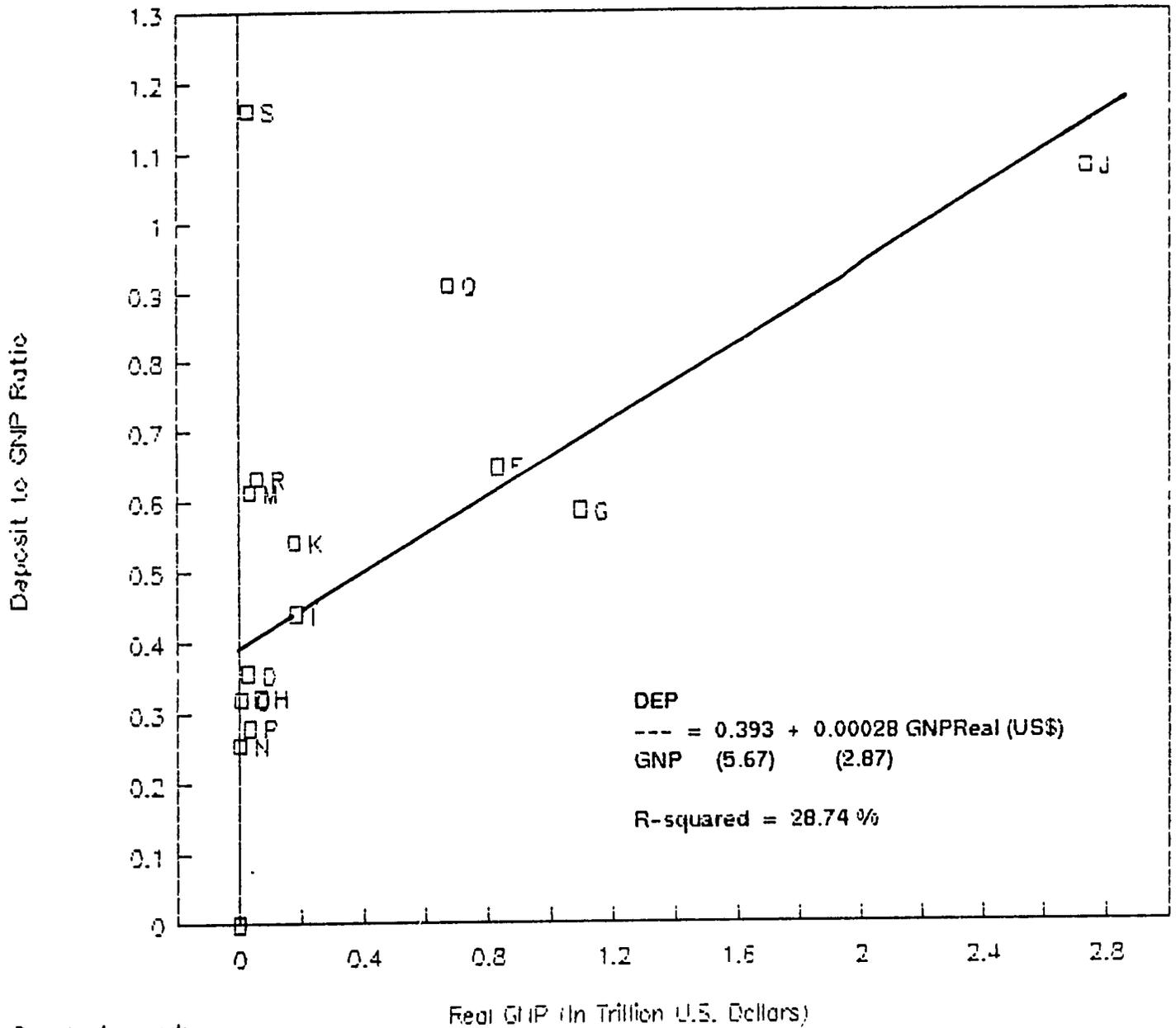
FIGURE 4.3 Relationship Between Deposit to GNP Ratio and Real GNP, Selected Countries, 1980



Country Legend:

- | | | | | |
|------------------|---------------|-----------|-----------------|---------------|
| A - Argentina | E - Peru | I - India | M - Malaysia | Q - U.K. |
| B - Brazil | F - France | J - Japan | N - Nepal | R - Thailand |
| C - Chile | G - Germany | K - Korea | O - Sri Lanka | S - Singapore |
| NZ - New Zealand | H - Indonesia | L - Spain | P - Philippines | |

FIGURE 4.4 Relationship Between Deposit to GNP Ratio and Real GNP, Selected Countries, 1989



Country Legend:

- | | | | | |
|-----------------|---------------|-----------|-----------------|---------------|
| A - Argentina | E - Peru | I - India | M - Malaysia | Q - U.K. |
| B - Brazil | F - France | J - Japan | N - Nepal | R - Thailand |
| C - Chile | G - Germany | K - Korea | O - Sri Lanka | S - Singapore |
| D - New Zealand | H - Indonesia | L - Spain | P - Philippines | |

In 1980, 13 countries including the Philippines, had performed below the average. The performance of the Philippines, however, was close to the average. It was almost the same as that of Korea, Thailand, Sri Lanka, India, and Argentina, but much better than that of Indonesia, Nepal, Brazil, Chile, and Peru. The regression line in 1989 has shifted upward suggesting that on the average, financial intermediation has improved over the years. Several countries, including the Philippines, are found to perform lower than the average. There are at least three striking observations that can be made from Figure 4.4. First, Korea and Thailand had shown an above-average performance whereas in 1980, they were shown to perform just below the average. Second, the Philippines' ratio had moved further below the regression line. And third, Indonesia, India and Sri Lanka had outstripped the performance of the Philippines while Chile, Peru and Nepal are fast catching up with the Philippines.

The performance of the Philippines in mobilizing deposits over the period 1970 to 1989 is compared with those of a few selected countries, namely Malaysia, India, Sri Lanka, Indonesia and Thailand (Figure 4.5). Malaysia's and Thailand's deposit-to-GNP ratios were already high in the 1970s compared with that of the Philippines, and still they increased much faster in the 1980s. India and Sri Lanka had about the same ratios as the Philippines' in the 1970s, but towards the second half of the 1980s, the deposit-to-GNP ratio of the Philippines fell well below those of India and Sri Lanka. Interestingly, the ratio of Indonesia in the 1970s was far below that of the Philippines, but it had been steadily rising. By 1989, it already overtook that of the Philippines. Among the countries shown in Figure 4.5, the Philippines obtained the lowest deposit-to-GNP ratio as of 1989.

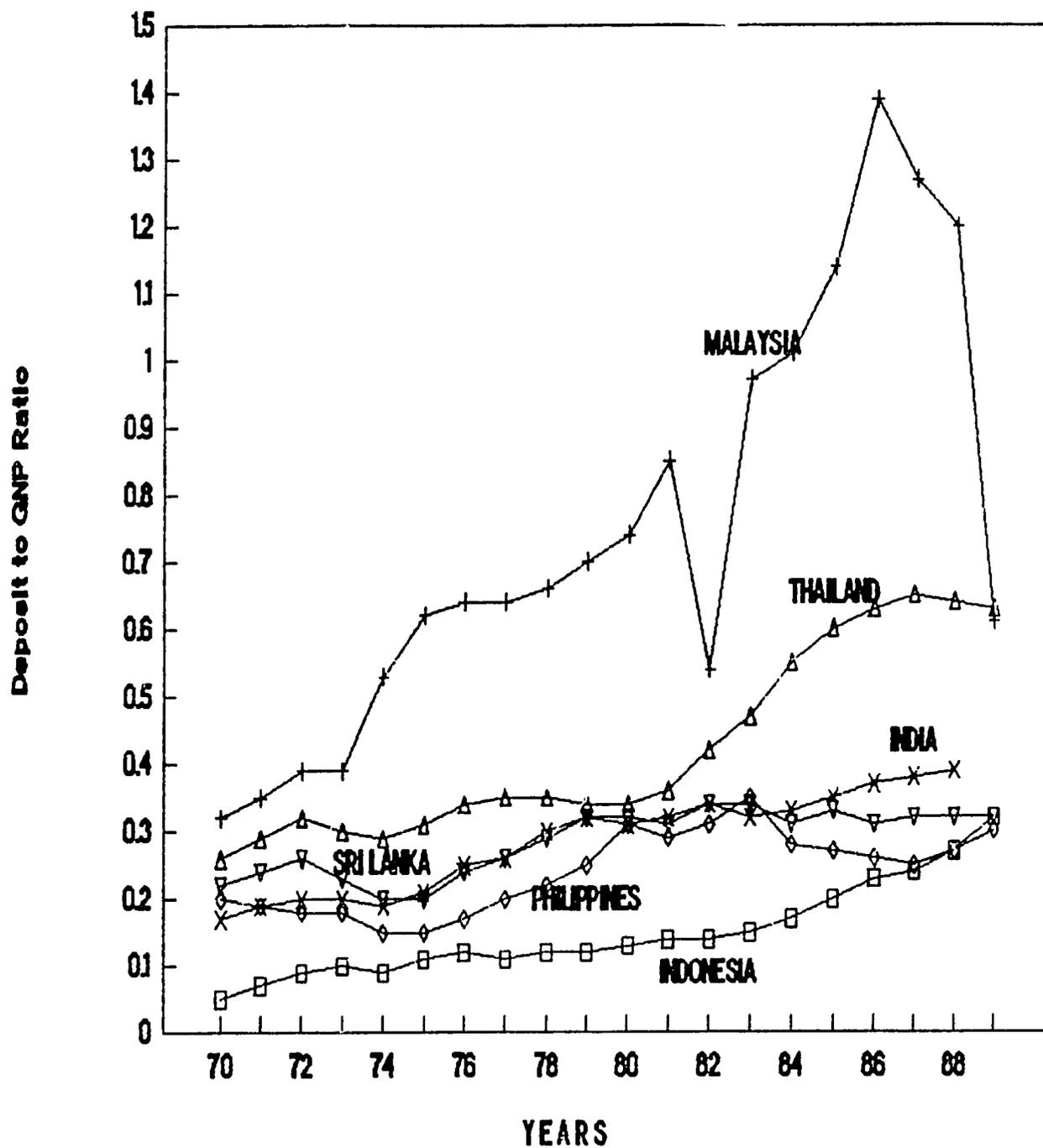
The results discussed above suggest two things. First, the Philippine banking system has performed badly relative to its potential (as indicated here by the regression line). Second, although the deposit-to-GNP ratio of the Philippines has been rising over the years, nevertheless it has lagged behind those of other low-income countries. The relatively low performance of the Philippine financial system could be attributed to the low real rate of return of deposits and instability of the financial system.

Figure 4.6 depicts the movements of nominal and real interest rates on savings deposits. In 1973, the Central Bank was given the authority to set interest rates on all deposits.¹⁰ The nominal interest rate on savings deposits was raised by the Central Bank from 6 percent in 1975 to 7 percent in 1976. It was adjusted again in 1979 to 9 percent. The nominal rate continued to climb after the interest rate liberalization in 1981, but declined since 1986. As of 1990, the nominal rate on savings deposits was about 5 percent, which was lower than the fixed rates in the 1970s.

The effect of inflation rate on the real return on savings deposits is quite instructive. The real interest rate had been negative in all the years during the period 1970-1990, except 1986 and 1987 when inflation rates plunged precipitously. It seems that the interest rate

¹⁰ Prior to this year, the rates were fixed according to the Anti-Usury Act of 1916.

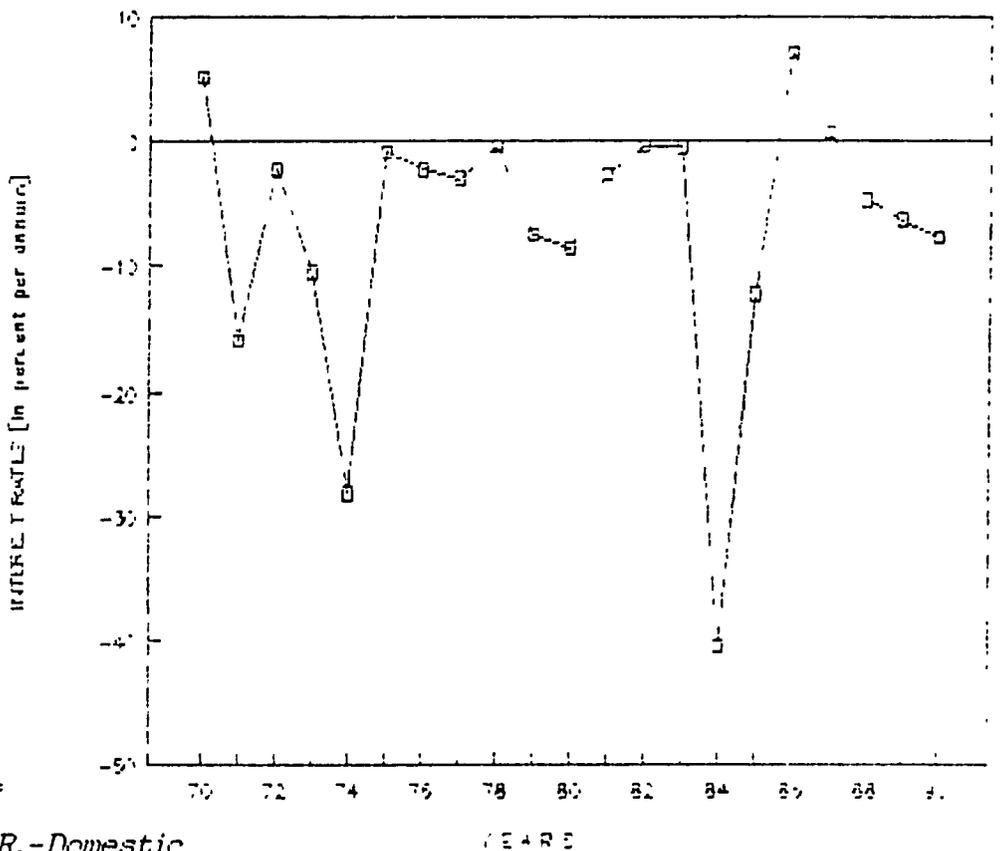
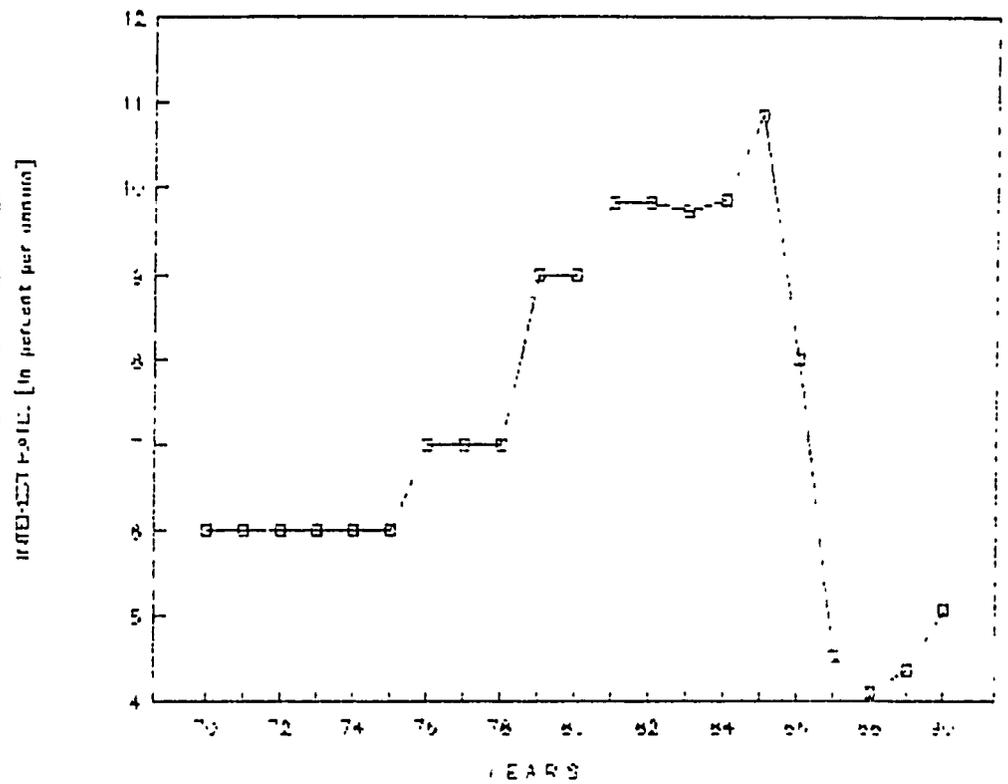
FIGURE 4.5 Deposit to GNP Ratios, Selected Countries, Various Years



□ Financial Liberalization/FIGU5.pic/12-06-91)

FIGURE 4.6 Nominal and Real Interest Rates on Savings Deposits, 1970-1990

Year	Nominal Rates	Real Rates
1970	6.000	5.242
1971	6.000	(15.900)
1972	6.000	(2.230)
1973	6.000	(10.500)
1974	6.000	(28.160)
1975	6.000	(0.780)
1976	7.000	(2.230)
1977	7.000	(2.930)
1978	7.000	(0.290)
1979	9.000	(7.510)
1980	9.000	(8.600)
1981	9.812	(2.570)
1982	9.811	(0.399)
1983	9.729	(0.441)
1984	9.855	(40.495)
1985	10.842	(12.258)
1986	7.993	7.243
1987	4.530	0.740
1988	4.100	(4.660)
1989	4.274	(6.226)
1990	5.060	(7.620)



Source: Central Bank: D.E.R.-Domestic

liberalization has not conferred any benefits to small savers who usually hold their money in savings deposits. ~~This~~ This could be partly attributed to the oligopoly power wielded by banks on this market.¹¹

The movements of nominal and real interest rates on the 91-day time deposits are shown in Figure 4.7. The nominal rate had been increasing since 1974 up until 1984. It declined in the next three consecutive years, but rose again in the last three years. The movement of the real interest rate on time deposits is quite interesting. It was negative in most of the years before the 1981 interest rate liberalization, but has been positive thereafter, except in 1984 and 1985, the height of the balance of payments crisis. Moreover, there is a perceptible increase in the real interest rate on time deposits during the period 1970-1990.

It is to be noted that inflation rate had been higher in the 1980s than in the 1970s. Clearly, it has substantially negated the positive effect of interest rate liberalization introduced in the early 1980s on financial intermediation.

To be attractive to the depositing population, deposits must also be secured. Deposit security hinges on the health of the financial system, in general, and of the financial institutions, in particular, as well as the adequacy of the deposit insurance provided by the government. Instability of the financial system diminishes deposit security or increases the risk of losing a part of the whole deposits when banks fail. Close supervision of banks by the Central Bank could reduce the risk of bank failure.

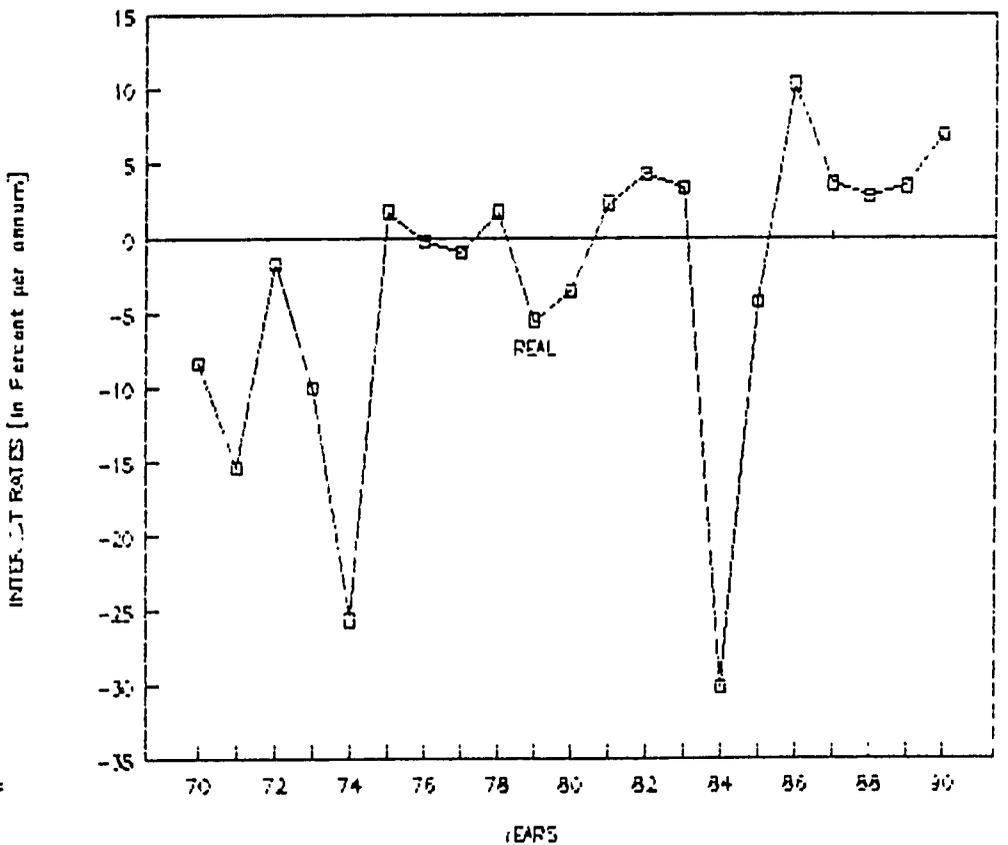
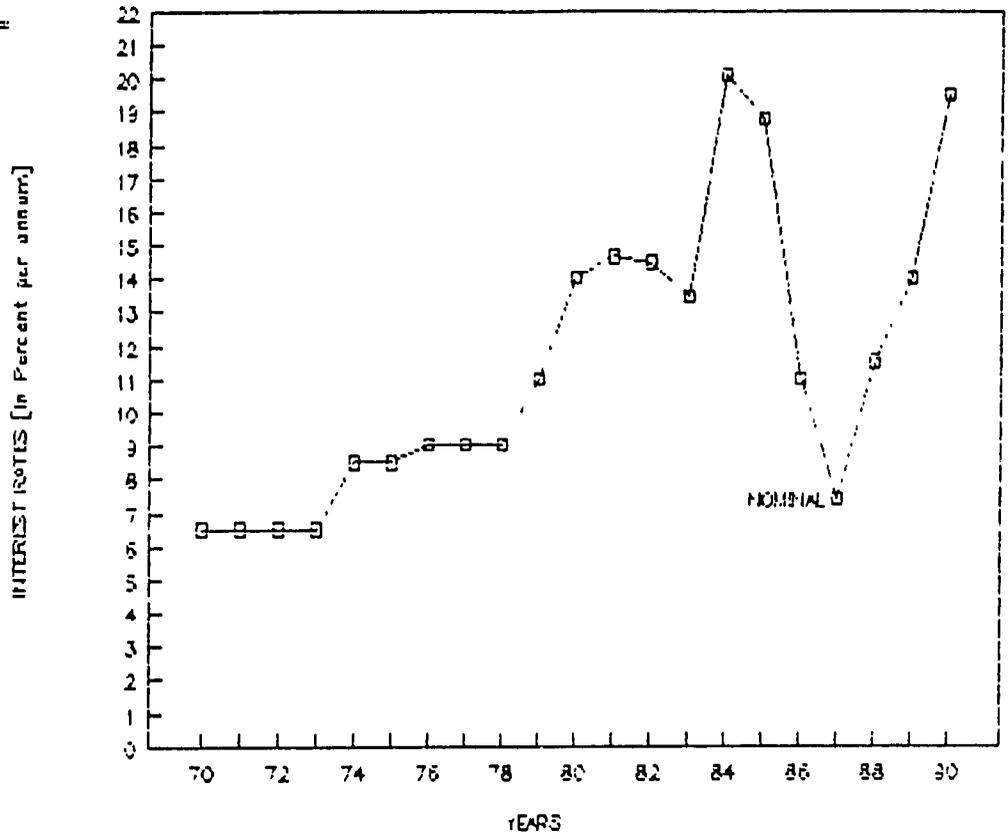
The history of the Philippine banking system is replete with banking failures. Even large banks, such as Manila Bank with over half a million depositors and almost ₱2 billion deposits and Banco Filipino with over 2 million depositors and almost ₱1 billion deposits, had failed. Throughout the period 1972-1988, the Central Bank closed a total of 232 banks broken down as follows: 6 commercial banks; 3 savings and mortgage banks, 4 private development banks, 26 stock savings and loans associations; and 193 rural banks. The cumulative total deposits involved amounted to ₱7.6 billion (Table 4.6). Note that the incidence of bank failure was higher in the 1980s than in the 1970s. Also, a number of large banks with huge amounts of deposits failed in the 1980s (Table 4.7).

Most of the bank failures were not caused by the crises that struck the economy since 1970. Instead, the crises merely exposed the weaknesses of those banks which had been caused by mismanagement and fraud committed by the owners and officers of the failed banks. The

¹¹ There are casual pieces of evidence pointing to the existence of the oligopoly power of banks especially in the savings deposit markets. For instance, when PNB raised its interest rate on savings deposits a few months after the Central Bank removed the ceilings on interest rates, the private banks represented by the Bankers Association of the Philippines (BAP) sent some signals to PNB indicating their dislike for such move. The president of PNB who was sure to get elected as president of the BAP before PNB made such move was suddenly rejected by the BAP members. In addition, Lamberte (1991a) found bank spread to be increasing since the interest rate liberalization in 1980, which happens to be strongly correlated with the concentration ratio (measured by the Herfindahl index).

FIGURE 4.7 Nominal and Real Interest Rates on Time Deposits, 1970-1990

Year	Nominal Rates	Real Rates
1970	6.500	(8.350)
1971	6.500	(15.400)
1972	6.500	(1.730)
1973	6.500	(10.000)
1974	8.500	(25.660)
1975	8.500	1.720
1976	9.000	(0.230)
1977	9.000	(0.930)
1978	9.000	1.10
1979	11.000	(5.910)
1980	14.000	(3.600)
1981	14.652	2.262
1982	14.474	4.264
1983	13.449	3.279
1984	20.115	(30.235)
1985	18.812	(4.288)
1986	10.970	10.220
1987	7.387	3.597
1988	11.507	2.747
1989	14.012	3.412
1990	19.528	6.848



Central Bank is encountering some difficulties in closely supervising banks because of lack of personnel and certain laws, particularly the Secrecy of Bank Deposits Law, that weakens their supervisory function. Although its examiners may be able to see violations of DOSRI loan ceilings, however, in cases where dummies are used, they usually find it difficult to prove the flow of funds from dummies to the DOSRI (when made through the deposit accounts) because they cannot examine any deposit account per the said Law.¹²

The role of the Central Bank as a regulatory body and lender of last resort is important in ensuring the stability of the banking system. Its timely and adequate intervention in times of financial stress could prevent a local bank run from developing into a global or systemic bank run. The Central Bank appears to be responsive to imminent bank runs. For instance, it provided financial assistance to the banking system during the 1981 liquidity crisis and the 1984-1985 balance-of-payments crisis. As shown in Figure 4.8, the ratio of Central Bank's financial assistance to banks to reserve money rose significantly in 1981 and 1984-1985. This was aimed at stabilizing the financial system.

All banks of the Philippines are members of the Philippine deposit insurance program administered by the Philippine Deposit Insurance Corporation (PDIC), a government-owned corporation. The present maximum coverage per depositor is ₱40,000. As of December 1988, 96 percent of the 17.9 million deposit accounts had balances below the insurance maximum coverage.¹³ The total exposure of PDIC was estimated at ₱76.4 billion, which was about 31 percent of the banking system's total deposit liabilities.

The credibility of the deposit insurance system to depositors depends on the quickness of PDIC in paying claims, which, in turn, depends on its financial and human resources. Unfortunately, however, PDIC is severely undercapitalized and undermanned. Its permanent insurance fund is only ₱2 billion. Its income from assessment fees and investment in securities has not been sufficient to cover its operations and payments of insured deposits. While its total gross income for the period 1970-1988 amounted to ₱1.4 billion, the estimated insured deposits payable for the same period reached more than ₱3.5 billion yielding a loss of over ₱2 billion. Consequently, it has to resort to borrowing from the Central Bank to support heavier disbursements. Even with this, its available funds are still insufficient to meet payments of insured deposits of failed banks. In fact, it has been way behind its payments of claims. In 1988 alone, it paid a total of ₱368 million to insured deposits of failed banks, such as Manilabank, PISO Development Bank, Banco Filipino, etc., that had been closed more than two years ago. In its annual report for 1988, PDIC admitted that "some 600,000 depositors with estimated insured deposits of ₱2.345 billion in 475 banking offices were still to be served" (p 7).

¹² DOSRI refers to directors, officers, stockholders, and related interests of a bank.

¹³ The latest annual report of PDIC is dated April 1989.

**TABLE 4.6 Banks Closed After the Establishment of PDIC in 1969
Under Republic Act 3591**

Year-end	Total No. of Banks	Total No. of Accounts	Total Deposits (P M)	Amount Paid by P.D.I.C. (P M)	Equivalent No. of Paid Accounts
1972	6	148,092	30 896	10.615	n.a.
1973	10	n.a.	n.a.	17 010	54,683
1974	12	n.a.	n.a.	46 273	n.a.
1975	12	n.a.	n.a.	n.a.	n.a.
1976	14	218,928	152.329	46.672	n.a.
1977	21	386,559	353.804	60.941	60,983
1978	22	394,728	355.182	61 812	62,329
1979	24	398,163	356.032	61.855	62,485
1980	47	480,000	368.327	66.870	81,604
1981	79	640,200	415.836	93.003	n.a.
1982	86	n.a.	n.a.	n.a.	85,801
1983	94	n.a.	n.a.	173.883	218,804
1984	120	1,744,627	1,877.694	364.168	275,703
1985	164	4,891,556	5,726.140	1,580.000	762,800
1986	189	4,994,731	5,776.446	1,847.763	837,074
1987	219	5,610,617	7,635.050	2,490.680	993,978
1988	232	n.a.	n.a.	2,859.000	1,058,832

Note: n.a. - no data available from the annual reports.

Source: P.D.I.C. Annual Reports, 1972-1988.

TABLE 4.7 Large Banks Closed by the Monetary Board of the Central Bank

BANK	Date of C.B. Takeover	No. of Deposit Accounts	Deposits (In Million Pesos)
(1) Continental Bank 1/	6-25-74	60,128	121.2
(2) General Bank & Trust Co. 2/	3-25-77	157,977	199.6
(3) Royal Savings Bank, Inc. 3/	7-06-84	302,580	350.7
(4) Banco Filipino Savings and Mortgage Bank	1-25-85	2,413,000	897.0
(5) Philippine Veterans Bank	4-10-85	no data	1,600.0 4/
(6) Pacific Banking Corp.	7-05-85	no data	3,058.0 5/
(7) PISO Development Bank	2-04-87	20,088	206.3
(8) Manila Banking Corp.	5-25-87	633,614	1,905.2

NOTES :

1/ Resumed normal operation on May 31, 1977 under the name Allied Banking Corp.

2/ Resumed normal operation on September 19, 1977 under the name of International Corporate Bank.

3/ Resumed normal operation on September 11, 1984 under the name of Commercial Savings Bank, a subsidiary of COMBANK (now renamed Boston Bank of the Philippines).

4/ Data pertain to end-1984. Note that 1.4 billion pesos of the 1.6 billion peso deposits were government deposits.

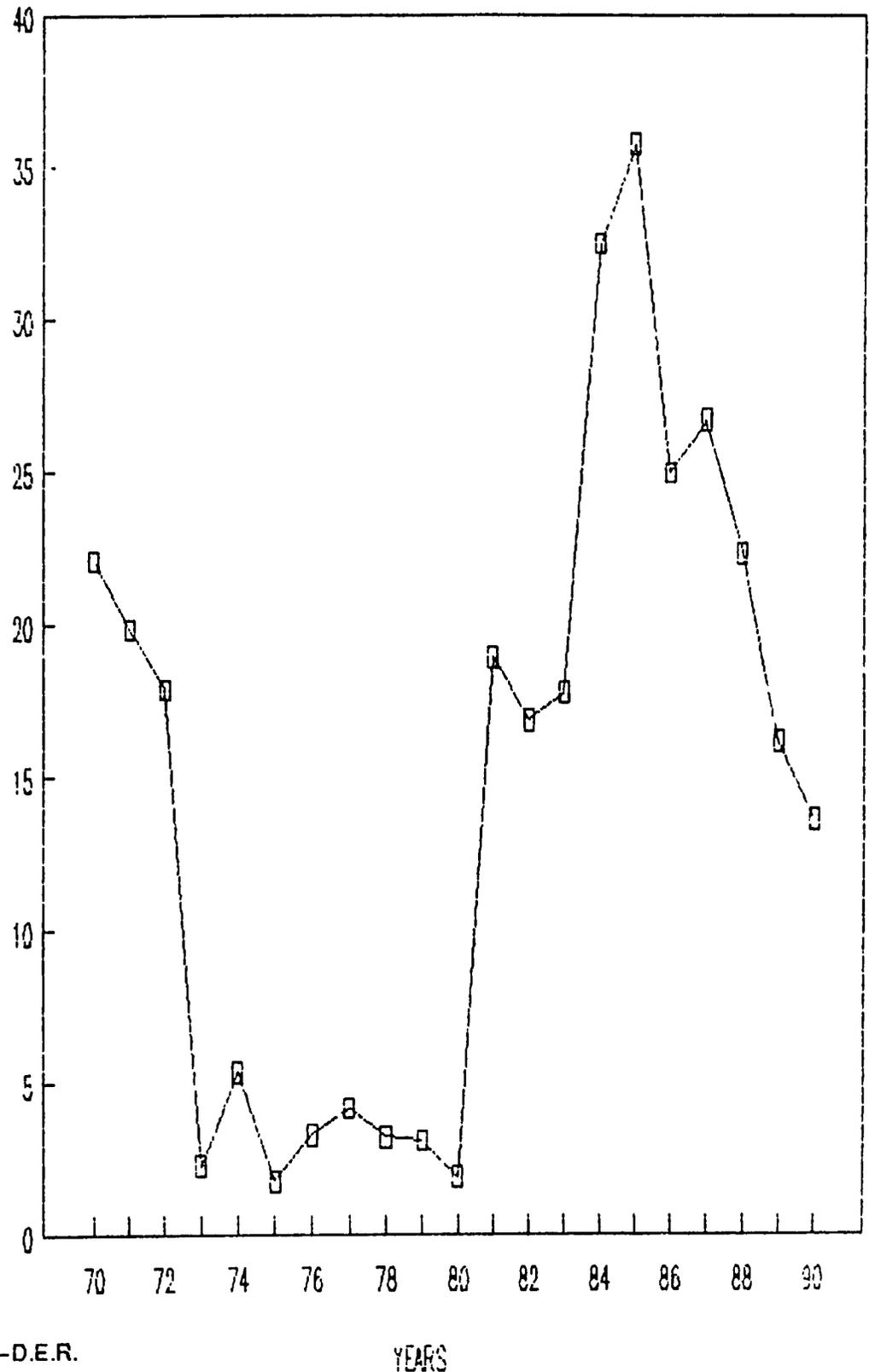
5/ As of December 1984. In 1987, Far East Bank and Trust Co. (FEBTC) won the bid to operate Pacific Bank's 43 branches all over the country and since then has been servicing all depositors of the closed Pacific Bank.

S O U R C E : P.D.I.C. Annual Reports and the Central Bank.

FIGURE 4.8 Ratio of Central Bank's Assistance to Banks (ASS) to Reserve Money (RM), 1970-1990 (in percent)

Year	ASS /RM
1970	22.08
1971	19.88
1972	17.86
1973	2.28
1974	5.37
1975	1.77
1976	3.31
1977	4.15
1978	3.21
1979	3.08
1980	1.89
1981	18.91
1982	16.84
1983	17.73
1984	32.47
1985	35.76
1986	24.95
1987	26.68
1988	22.31
1989	16.13
1990	13.60

C.B. ASSISTANCE TO RESERVE MONEY RATIO



Source: Central Bank, Domestic-D.E.R.

In summary, bank failures increase the risk of deposits, which would be considered as a disincentive to savers. Indeed, the numerous bank failures that occurred in the 1980s partly negated the gains derived from financial liberalization.

4.2.2 Financial Innovations

It is incomplete to describe the performance of the domestic financial system by just examining mobilization of traditional deposits. It is to be noted that since the 1970s, financial innovations have occurred. Interestingly, some of these innovations emerged in response to regulations. The following, therefore, discusses some financial innovations and their impact on financial savings since they relate to financial liberalization.

Deposit Substitutes. The emergence of the new financial institutions, called nonbanks, which were not directly under the control of the Central Bank, paved the way for the development of the money market. This market offered a variety of short-term financial instruments whose rates were unregulated by the Monetary Authorities. It inevitably drew some resources away from the traditional deposits. Banks responded to the challenge posed by nonbank financial institutions by offering their own money market instruments, called deposit substitutes, whose rates were not covered by the Anti Usury Act of 1916. The interest rates on deposit substitutes in the early 1970s were much higher than those on time deposits (Figure 4.9). Concerned about the impact of high interest rate on investment, the increasing emphasis on direct lending by nonbanks, and possible insider abuse as demonstrated in the case of one of the commercial banks that failed in 1974, the Central Bank issued in 1976 new regulations covering money market operations of banks and nonbanks. These regulations included interest rate ceilings on deposit substitutes, higher minimum trading lot size, reserve requirements and 35 percent transactions tax on all primary borrowing in the money market, all of which effectively reduced the interest rate differential between deposit substitutes and traditional deposits. The interest rate liberalization that took effect in 1981 has further diminished the relative attractiveness of deposit substitutes vis-a-vis the traditional deposits.

The first officially recorded data on outstanding deposit substitutes appeared in 1976. From ₱16.6 billion, it rose to ₱26.2 billion in 1982, but declined thereafter. By 1990, the outstanding deposit substitutes amounted to only ₱9.9 billion, which is equivalent to only 38 percent of that of the 1976 level. Interestingly, the share of commercial banks in the total outstanding deposit substitutes substantially declined from 65 percent in 1976 to 32 percent in 1990, suggesting that they have become less dependent on this source of funds.

Although it drew some resources away from traditional deposits, nonetheless the deposit substitute market was able to mobilize additional financial savings. As can be seen from Figure 4.10, the ratio of financial savings that include traditional deposits and deposit substitutes to GNP (FS2) was much higher especially in the 1970s and the early 1980s than that which includes only the traditional deposits (FS1). However, the difference between FS2 and FS1 has tended to shrink since 1981 when the interest rate was liberalized. As of 1990, the difference was hardly noticeable at all.

While the deposit substitute market has provided savers with alternative investment instruments, however, it has not benefitted at all the small savers. The deposit substitute market is a market for large savers. Most of the placements were more than half a million pesos.

Trust Accounts. Another financial innovation that emerged in the domestic financial market is the trust account. Banks may secure authority from the Central Bank to operate a trust account, which is treated as an off-balance sheet activity of banks.

Trust accounts grew faster during the second half of the 1970s when deposit substitutes began to be subjected to several regulations. During the period 1970-1990, the growth of trust accounts averaged 31 percent compared to only 21 percent for traditional deposits. In the 1980s, a large amount of funds had shifted from deposit substitutes to trust accounts. This partly accounted for the latter's sustained growth and the former's steady decline (Figure 4.11). It must be noted that the reserve requirement on deposit substitutes was high compared to that on trust accounts. It reached 24 percent in 1984 for deposit substitutes as against only 10 percent for common trust funds and 0 percent for other trust funds. Aside from this, banks have been reported to transfer loan accounts to their trust departments in order to facilitate compliance with loan portfolio requirements, such as the agri/agra law. Similarly, the gross receipts tax which is imposed on all interest, commission, and discounts from lending activities of banks would not apply to income from trust loans and investments since these do not accrue to banks themselves. All this enables banks to offer more attractive returns on trust funds than on deposit substitutes or traditional deposits.

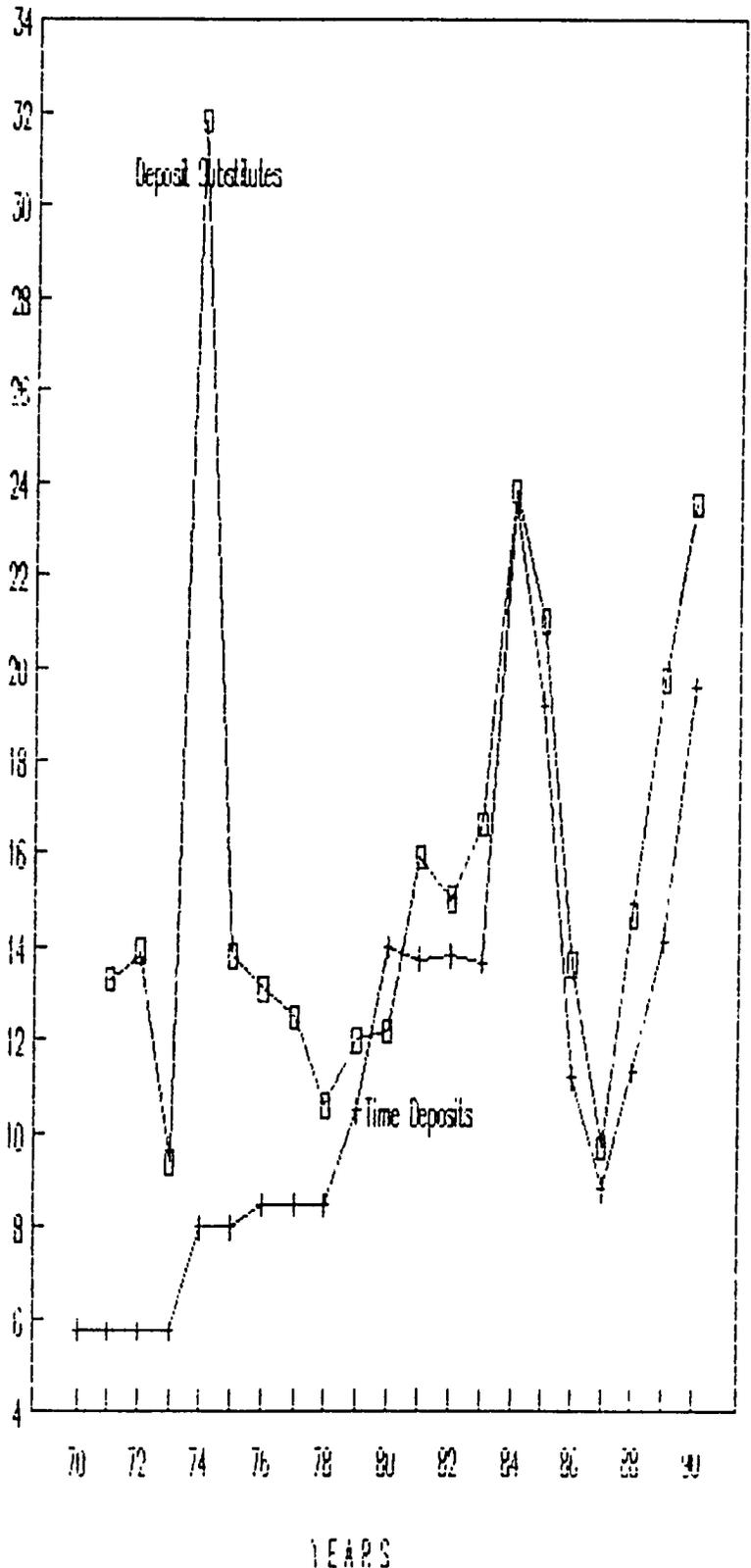
While it is true that trust accounts have absorbed some funds from deposit substitutes and traditional deposits, it has also yielded a net contribution to the overall financial savings mobilization. As can be seen from Figure 4.12, the ratio of financial savings, which include traditional deposits, deposit substitutes and trust accounts, to GNP (FS3) is much higher than that which does not include trust accounts (FS2). The difference between FS3 and FS2 has remained large even in the second half of the 1980s when deposit substitutes markedly declined. The share of trust accounts in the total financial savings had remained above 10 percent in the 1980s.

Small savers, however, are left out in this innovation. The required minimum lot size for a trust fund is very high. A survey of a sample of banks reveals a minimum requirement ranging from ₱20,000 to ₱100,000.

Government Securities. Government securities are alternative savings instruments for the private sector. The 1980s saw a phenomenal rise in outstanding government securities. As of 1990, outstanding government securities already reached ₱243.4 billion or 21 percent of GNP compared to only ₱34 billion or 16 percent of GNP in 1980. Among the government securities, the Treasury bills, which are basically short-term securities, have become the primary instrument in terms of outstanding value. From only ₱3 billion in 1980, it rose to ₱192.6 billion in 1990. Its share in total outstanding government securities had also increased

FIGURE 4.9 Nominal Interest Rates on Time Deposits and Deposit Substitutes, 1970-1990

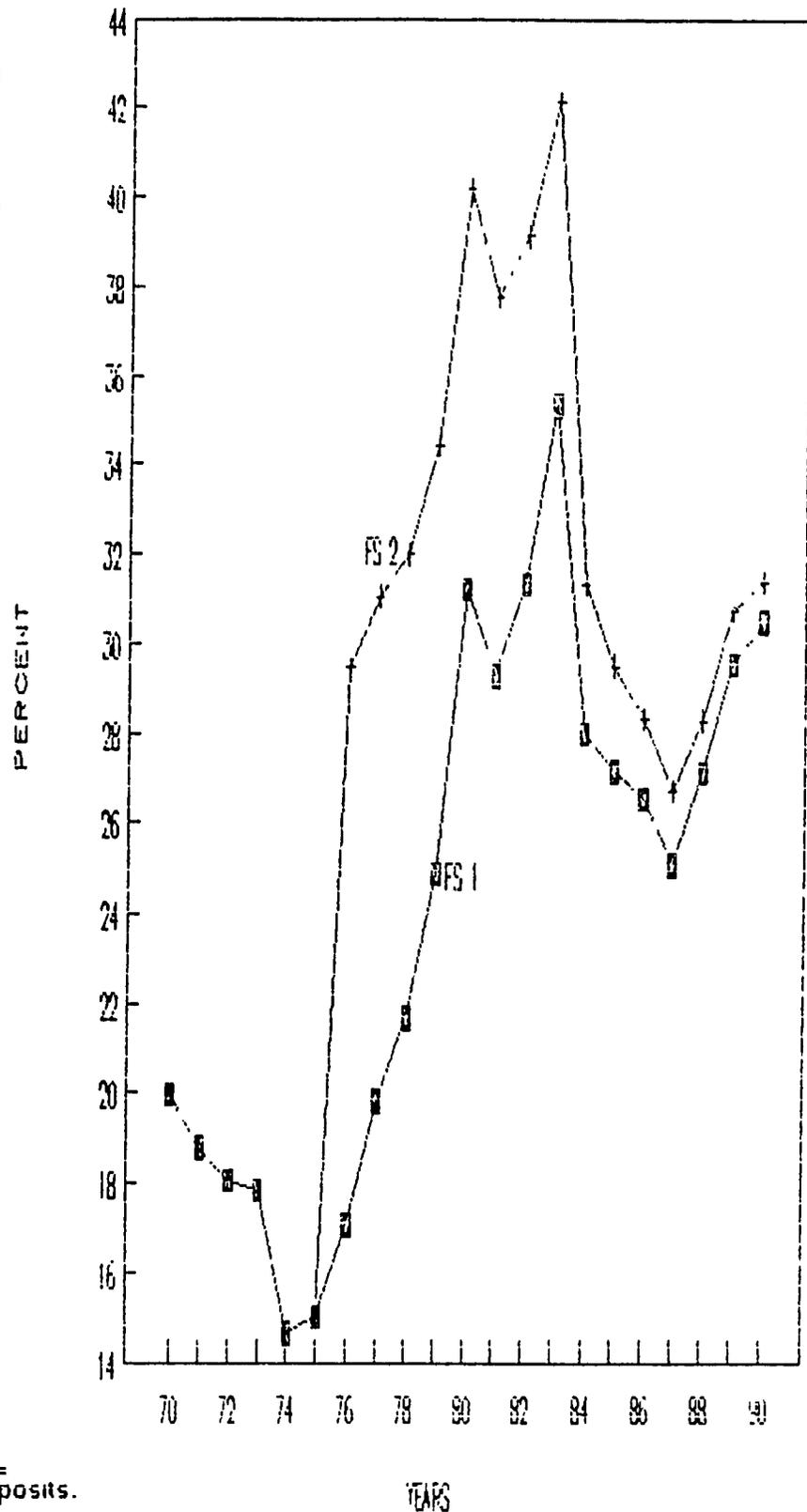
Year	Deposit Substitutes	Time Deposits
1970	13.135	5.750
1971	11.948	5.750
1972	11.918	5.750
1973	9.425	5.750
1974	10.047	8.000
1975	10.342	8.000
1976	10.186	8.500
1977	10.901	8.500
1978	10.988	8.500
1979	12.254	10.500
1980	12.141	14.000
1981	12.606	13.717
1982	13.811	13.799
1983	14.173	13.616
1984	30.534	23.566
1985	25.806	19.177
1986	14.433	11.173
1987	11.390	8.809
1988	14.406	11.315
1989	19.333	14.126
1990	23.396	19.538



Source: Central Bank: D.E.R.-Domestic

FIGURE 4.10 Ratio of Financial Savings to GNP with Deposit Substitutes, 1970-1990

Year	FS 1	FS 2
1970	19.98	19.90
1971	18.78	18.78
1972	18.09	18.09
1973	17.86	17.86
1974	14.66	14.66
1975	15.02	15.02
1976	17.07	29.48
1977	19.83	31.05
1978	21.68	31.98
1979	24.86	34.42
1980	31.20	40.16
1981	29.28	37.77
1982	31.31	39.13
1983	35.33	42.14
1984	27.99	31.35
1985	27.15	29.50
1986	26.53	28.31
1987	25.09	26.72
1988	27.12	28.28
1989	29.52	30.73
1990	30.50	31.37



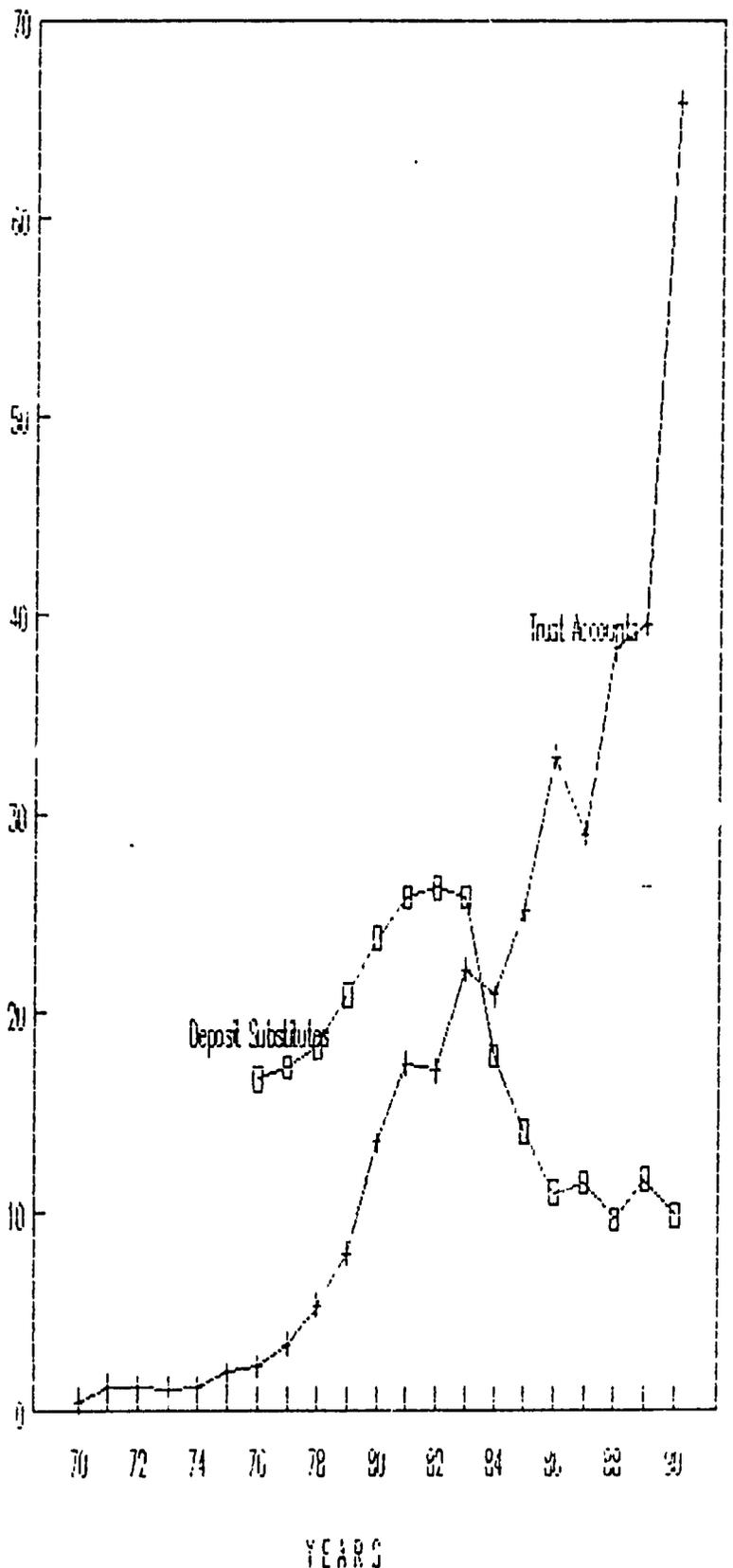
Notes: FS 1 includes traditional deposits.

FS 2 includes FS 1 and deposit substitutes.

Source: Central Bank: Domestic - D.E.R.

**FIGURE 4.11 Outstanding Deposit Substitutes and Trust Accounts, 1970-1990
(in Trillion Pesos)**

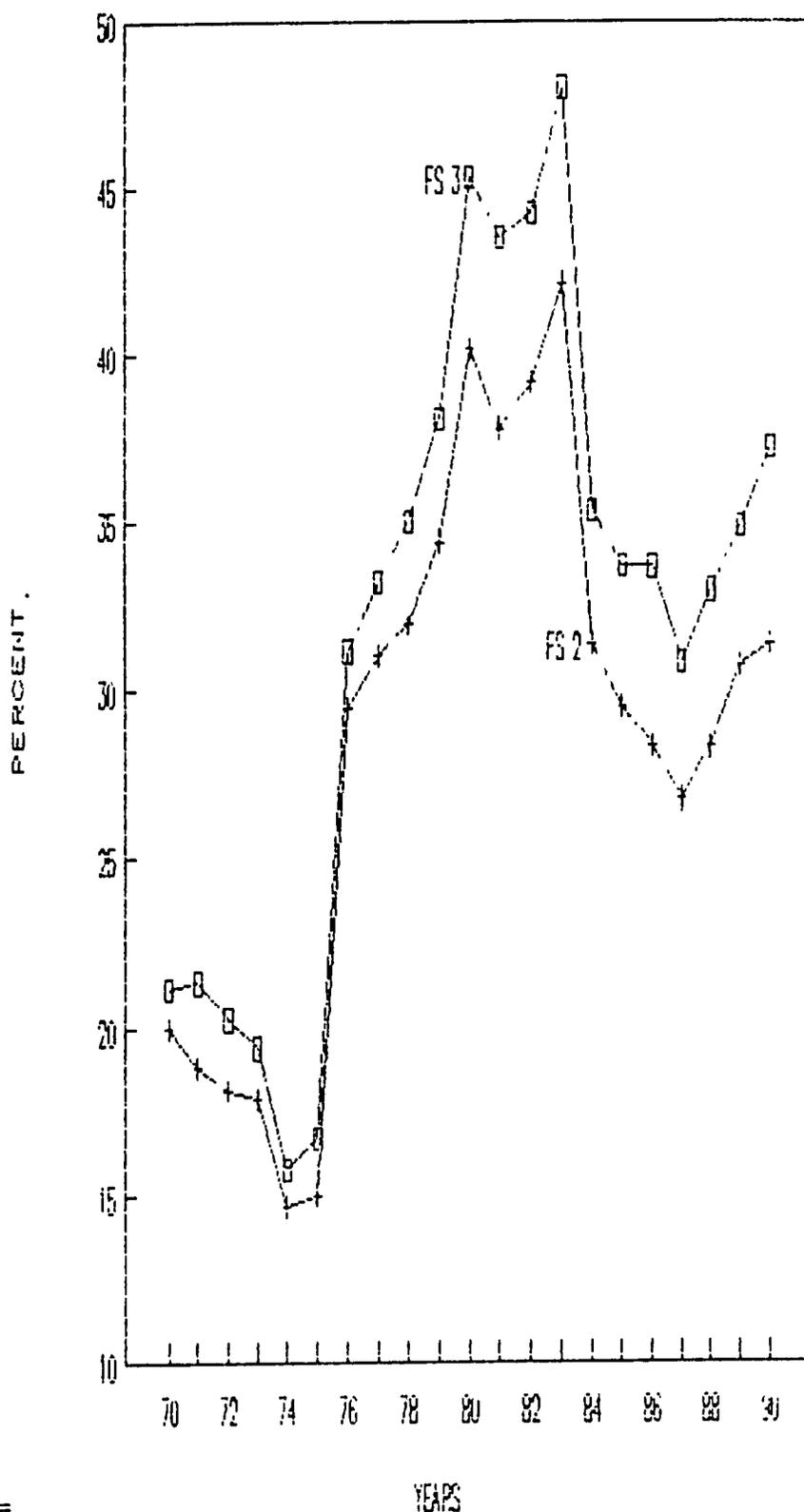
Year	Deposit Substitutes	Trust Accounts
1970	N.A.	469.5
1971	N.A.	1,269.7
1972	N.A.	1,197.3
1973	N.A.	1,107.6
1974	N.A.	1,136.2
1975	N.A.	1,934.0
1976	16,652.2	2,245.4
1977	17,205.7	3,368.4
1978	18,225.8	5,332.4
1979	20,860.0	7,930.8
1980	23,699.9	13,543.6
1981	25,763.2	17,411.4
1982	26,215.2	17,077.6
1983	25,781.3	22,133.3
1984	17,734.7	20,844.1
1985	14,063.0	25,047.9
1986	10,937.0	32,890.2
1987	11,438.0	28,922.2
1988	9,619.0	38,324.4
1989	11,642.3	39,552.6
1990	9,864.9	65,823.1



Source: Central Bank: Domestic - D.E.R.

FIGURE 4.12 Ratio of Financial Savings to GNP: with Deposit Substitutes and Trust Accounts, 1970-1990

Year	FS 2	FS 3
1970	19.98	21.13
1971	18.78	21.34
1972	18.09	20.23
1973	17.86	19.40
1974	14.66	15.79
1975	15.02	16.71
1976	29.48	31.15
1977	31.05	33.25
1978	31.98	34.99
1979	34.42	38.06
1980	40.16	45.28
1981	37.77	43.50
1982	39.13	44.22
1983	42.14	47.98
1984	31.35	35.30
1985	29.50	33.69
1986	28.31	33.66
1987	26.72	30.83
1988	28.28	32.94
1989	30.73	34.84
1990	31.37	37.18



Notes: FS 2 includes traditional deposits and deposit substitutes.
 FS 3 includes FS 2 and trust accounts.

Source: Central Bank, Domestic - D.1

phenomenally from 9 percent in 1980 to 79 percent in 1990. The issuance of the Treasury bills has been dictated by the need to finance the growing budget deficit of the government sector in the face of dwindling external financing.

The Treasury bills have become more competitive with other savings instruments in the market since 1984. Since 1986, the interest rates on Treasury bills have been determined through competitive bidding among accredited dealers.

The impact of the emergence of high-yielding government securities on private financial savings can be seen from Table 4.8. The private sector was a small holder of government securities in the 1970s and early 1980s. However, their share in total outstanding government securities suddenly jumped to 27 percent in 1984 and was more than 50 percent in most of the years during the period 1985-1990. As of 1990, the outstanding government securities held by the private sector stood at ₱114 billion, which was equivalent to 46 percent of the total outstanding government securities.

The government securities, especially the Treasury bills, have played a vital role in the 1980s in mobilizing a larger share of incomes in the form of financial assets. This is shown in Figure 4.13 (also Table 4.9) where the ratio of total private financial savings, which include traditional deposits, deposit substitutes, trust accounts and private sector holding of government securities, to GNP (FS4) is compared with that which does not include government securities (FS3). The figures suggest that private financial savings actually recovered fast after the 1984-1985 balance-of-payments crisis than what has been perceived. As of 1989, FS4 already stood at 48 percent, which already approximated the highest ratio attained in 1983. However, most of the recovered financial assets went to the Treasury bills. In 1990, the ratio declined to 47.2 percent as the economy sharply decelerated to only 3.1 percent and inflation rate surged to 12.7 percent.

While yields on Treasury bills are very attractive, small depositors do not have access to such instruments. Accredited dealers require high minimum placements on Treasury bills. A random survey of banks shows that the required minimum placements range from ₱50,000 to ₱100,000.

Although total private financial savings as represented by FS4 appears to be high, still it cannot compare with that of Thailand and Malaysia. The ratio of their total traditional deposits to GNP (which is equivalent to FS1 in this study) in 1989 already stood at 61 percent and 63 percent, respectively, whereas the FS4 of the Philippines in 1990 was only 47.2 percent. Thus, the Philippines will have a lot of catching up to do in the next few years. It should also be noted that a significant part of private financial savings is used to service outstanding debt of the government. Indeed, the relatively low private financial savings and the allocation of a large portion of those savings to debt servicing have seriously undermined the development process in the Philippines.

TABLE 4.8 Outstanding Government Securities by Holder, 1970-1990 (in Billion Pesos)

Holder	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
1. Central Bank	2.4 (46.15)	2.4 (41.38)	3.0 (39.47)	3.6 (32.14)	4.2 (28.00)	4.4 (22.45)	4.8 (21.72)	5.2 (20.16)	4.9 (16.90)	3.6 (11.65)
2. Commercial Banks	1.3 (25.00)	1.6 (27.59)	1.6 (21.05)	3.9 (34.82)	4.1 (27.33)	5.7 (29.08)	6.3 (28.51)	8.4 (32.56)	11.0 (37.93)	11.6 (37.54)
3. Thrift Banks	- (-)	0.2 (3.45)	0.1 (1.32)	0.3 (2.68)	0.3 (2.00)	0.3 (1.53)	0.4 (1.81)	0.5 (1.94)	0.7 (2.41)	0.8 (2.59)
4. Trust Funds	0.7 (13.46)	0.8 (13.79)	0.9 (11.84)	0.9 (8.04)	1.0 (6.67)	1.4 (7.14)	1.7 (7.69)	1.7 (6.59)	2.1 (7.24)	2.7 (8.74)
5. Semi-Government Entities	0.2 (3.85)	0.2 (3.45)	0.3 (3.95)	1.0 (8.93)	2.4 (16.00)	4.1 (20.92)	5.7 (25.79)	6.5 (25.19)	5.9 (20.34)	8.0 (25.89)
6. Private Sector	0.5 (9.62)	0.6 (10.34)	1.6 (21.05)	1.5 (13.39)	2.9 (19.33)	2.3 (11.73)	2.0 (9.05)	2.3 (8.91)	2.0 (6.90)	3.7 (11.97)
7. Foreign	0.0 (-)	1.3 (6.63)	1.3 (5.88)	1.2 (4.65)	1.2 (4.14)	0.5 (1.62)				
TOTAL	5.2	5.8	7.6	11.2	15.0	19.6	22.1	25.8	29.0	30.9

Note: Figures in parentheses are percent to total.

Source: Central Bank of the Philippines

TABLE 4.8 (cont'd)

Holder	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1. Central Bank	4.7 (13.82)	5.0 (13.09)	7.8 (16.70)	8.4 (17.28)	11.3 (16.24)	12.2 (8.97)	11.1 (6.12)	9.2 (3.70)	7.3 (4.62)	10.5 (3.38)	8.3
2. Commercial Banks	12.0 (35.29)	12.9 (33.77)	15.2 (32.55)	15.6 (32.10)	20.2 (29.02)	17.9 (18.86)	24.2 (19.56)	19.6 (113.04)	32.0 (16.23)	53.3 (23.47)	57.1 (23.29)
3. Thrift Banks	1.0 (2.94)	0.9 (2.36)	1.0 (2.14)	0.8 (1.65)	0.7 (1.00)	1.8 (1.90)	1.9 (1.54)	1.8 (1.20)	3.0 (1.52)	3.2 (1.41)	2.3 (0.94)
4. Trust Funds	4.3 (12.65)	4.9 (12.83)	5.3 (11.35)	5.8 (11.93)	6.5 (9.34)	7.3 (7.69)	7.8 (6.31)	10.0 (6.65)	11.5 (5.83)	10.0 (4.40)	7.8 (3.180)
5. Semi-Government Entities	7.0 (20.59)	9.6 (25.13)	10.9 (23.34)	13.6 (27.98)	11.9 (17.10)	14.0 (14.75)	15.1 (12.21)	20.6 (13.71)	25.9 (13.13)	27.1 (11.93)	55.8 (22.76)
6. Private Sector	4.8 (14.12)	5.0 (13.09)	6.5 (13.92)	4.6 (9.46)	19.0 (27.30)	41.6 (43.84)	63.6 (51.41)	89.1 (59.28)	117.5 (59.58)	123.0 (54.16)	113.9 (46.45)
7. Foreign	0.3 (0.88)	- (-)	- (-)	- (-)	- (-)						
TOTAL	34.0	38.2	46.7	48.6	69.6	94.9	123.7	150.3	197.2	227.1	245.2

Note: Figures in parentheses are percent to total.

Source: Central Bank of the Philippines

TABLE 4.9 Total Deposits, Deposit Substitutes, Trust Accounts, and Government Securities, 1970-1990 (in Million Pesos)

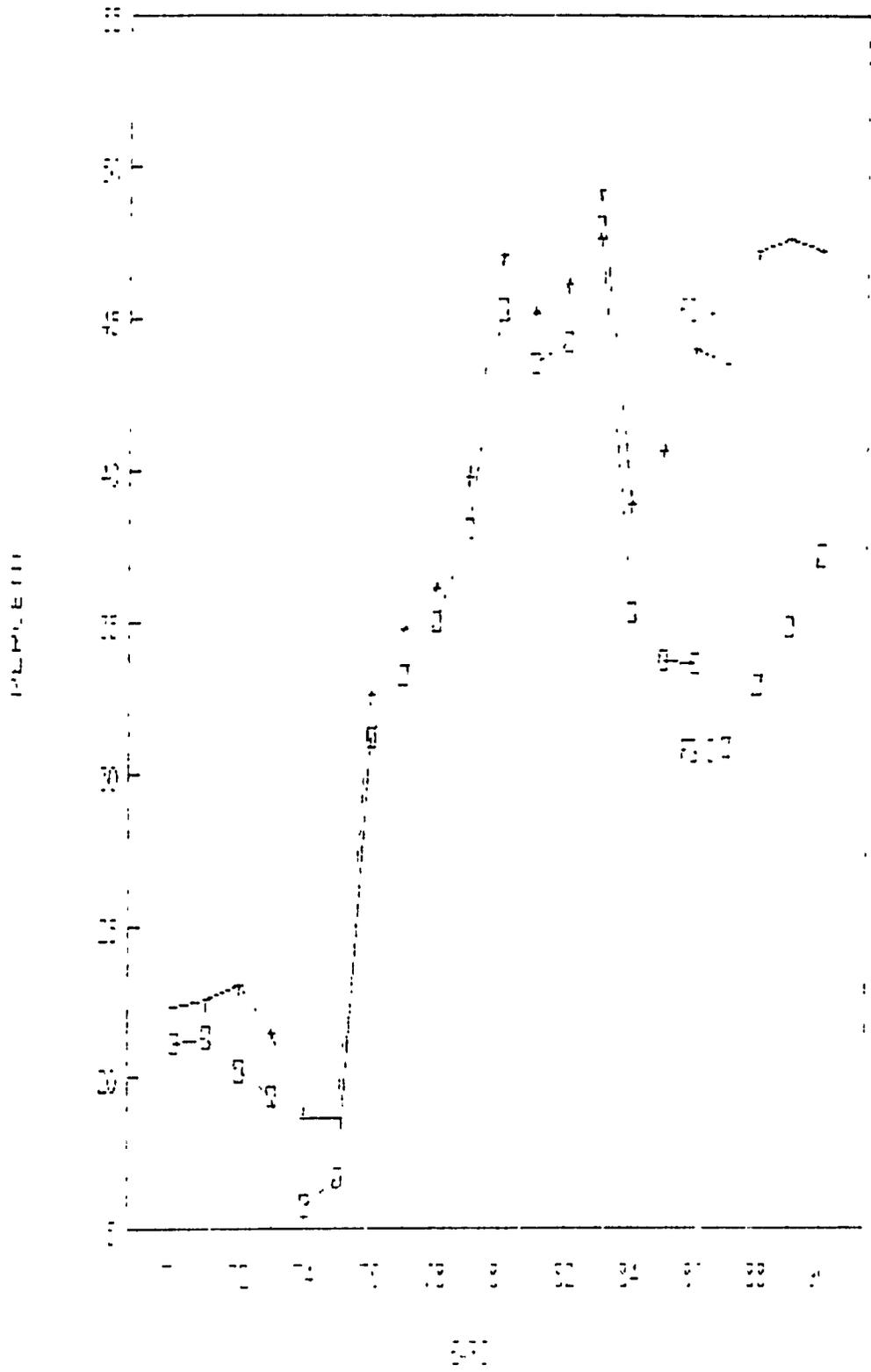
Type of Liability	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
1. Deposits	8,155.0 (89.40)	9,317.0 (83.30)	10,121.0 (78.30)	12,895.0 (83.20)	14,635.0 (78.40)	17,183.0 (80.20)	22,906.0 (52.30)	30,385.0 (57.10)	38,386.0 (60.00)	54,192.0 (62.5)
2. Deposit Substitutes	.. (-)	.. (-)	.. (-)	.. (-)	.. (-)	.. (-)	16,652.2 (38.00)	17,205.7 (32.30)	18,225.8 (28.50)	20,860.0 (24.10)
3. Trust Accounts	469.5 (5.15)	1,269.7 (11.35)	1,197.3 (9.27)	1,107.6 (7.14)	1,136.2 (6.09)	1,934.0 (9.03)	2,245.4 (5.13)	3,368.4 (6.32)	5,332.4 (8.34)	7,930.8 (9.15)
4. Govt. Securities	500.0 (5.48)	600.0 (5.36)	1,600.0 (12.35)	1,500.0 (9.68)	2,900.0 (15.53)	2,300.0 (10.74)	2,000.0 (4.57)	2,300.0 (4.32)	2,000.0 (3.13)	3,700.0 (4.27)
5. Total	9,124.5	11,186.7	12,918.3	15,502.6	18,671.2	21,417.0	43,803.6	63,994.2	86,682.8	75,052.0
6. As % of GNP	22.35	22.55	23.09	21.47	18.70	18.71	32.64	34.75	36.12	39.76

Type of Liability	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1. Deposits	62,543.0 (66.30)	88,912.0 (64.90)	105,040.0 (67.80)	133,808.0 (71.80)	147,594.0 (71.90)	162,260.0 (66.80)	163,110.0 (60.30)	176,472.0 (57.70)	223,123.0 (57.40)	283,919.0 (62.00)	345,396.0 (64.56)
2. Deposit Substitutes	23,699.9 (19.00)	25,763.2 (18.80)	26,215.2 (16.90)	25,781.3 (13.80)	17,734.7 (8.60)	14,063.0 (5.80)	10,937.0 (4.00)	11,438.0 (3.70)	9,619.0 (2.50)	11,642.3 (2.50)	9,864.9 (1.84)
3. Trust Accounts	13,543.6 (10.87)	17,411.4 (12.70)	17,077.6 (11.03)	22,133.3 (11.88)	20,844.1 (10.16)	25,047.9 (10.31)	32,890.2 (12.16)	28,922.2 (9.45)	38,324.4 (9.86)	39,552.6 (8.63)	65,823.1 (12.30)
4. Govt. Securities	4,800.0 (3.85)	5,000.0 (3.65)	6,500.0 (4.20)	4,600.0 (2.47)	19,000.0 (9.26)	41,600.0 (17.12)	63,600.0 (23.51)	89,100.0 (29.12)	117,500.0 (30.24)	123,000.0 (26.85)	113,900.0 (21.29)
5. Total	124,586.5	137,086.6	154,832.8	186,322.6	205,172.8	242,970.9	270,537.2	305,932.2	388,566.4	458,113.9	534,984.0
6. As % of GNP	47.10	45.15	46.16	49.19	38.91	40.65	44.01	43.50	47.22	47.63	47.24

Note: Figures in parentheses are percent to total.
Source: Central Bank, DEX-Domestic.

FIGURE 4.13 Ratio of Private Financial Savings to GNP: with Government Securities and Trust Accounts, 1970-1990

Year	FS 3	FS 4
1970	21.13	22.35
1971	21.34	22.55
1972	20.23	22.09
1973	19.4	21.47
1974	15.79	18.7
1975	16.71	18.71
1976	31.15	32.64
1977	33.25	34.75
1978	34.99	36.12
1979	38.06	39.76
1980	45.28	47.1
1981	43.5	45.15
1982	44.22	46.16
1983	47.98	49.19
1984	35.3	38.91
1985	33.69	40.65
1986	33.66	44.01
1987	30.83	43.5
1988	32.94	47.22
1989	34.84	47.63
1990	37.18	47.24



Notes: FS 3 includes traditional deposits, deposit substitutes & trust accounts
 FS 4 includes FS 3 and government securities

Source: Central Bank, Dominican Republic

Credit Allocation. The previous sections analyzed the performance of banks in mobilizing deposits. However, that is only half of the function of banks. The other half is credit allocation. This section analyzes the efficiency of credit allocation in the Philippines.

Figure 4.14 shows that the incremental capital-output ratio (ICOR) had remained low and quite stable in the first half of the 1970s. However, it started to go up towards the late 1970s and rose sharply during the first half of the 1980s. The ICOR improved considerably after the 1984-1985 crisis, although some sign of deterioration can be observed again in 1990.

On the other hand, the real lending rate fluctuated widely during the period 1970-1990 which was mainly due to sharp swings in the inflation rate. Nevertheless, it was positive in most of the years during the indicated period, and appeared to be drifting upward particularly after the interest rate liberalization in 1981. The increasing trend of real lending rate coupled with the slowing down of the economy beginning 1980 did not justify the sharp rise in the ICOR. During periods of high real lending rates, investment is normally expected to decline, but this seems to be not the case in the Philippines. It can only be argued on the basis of the data above that a large part of investment went into economic activities where effective demand was low. As can be gathered from Figure 4.15, the current account deficit deteriorated faster between 1974 and 1983 when the ICOR tended to rise sharply. This means that investments particularly in the late 1970s and early 1980s did not only go to industries where demand is low but also went into industries that could not compete in the international market. This could largely be attributed to the then prevailing trade, industrial and exchange rate policies. The softening in both domestic and world demand in the early 1980s that was largely caused by the second oil shock dealt a heavy blow to the less competitive Philippine industries.

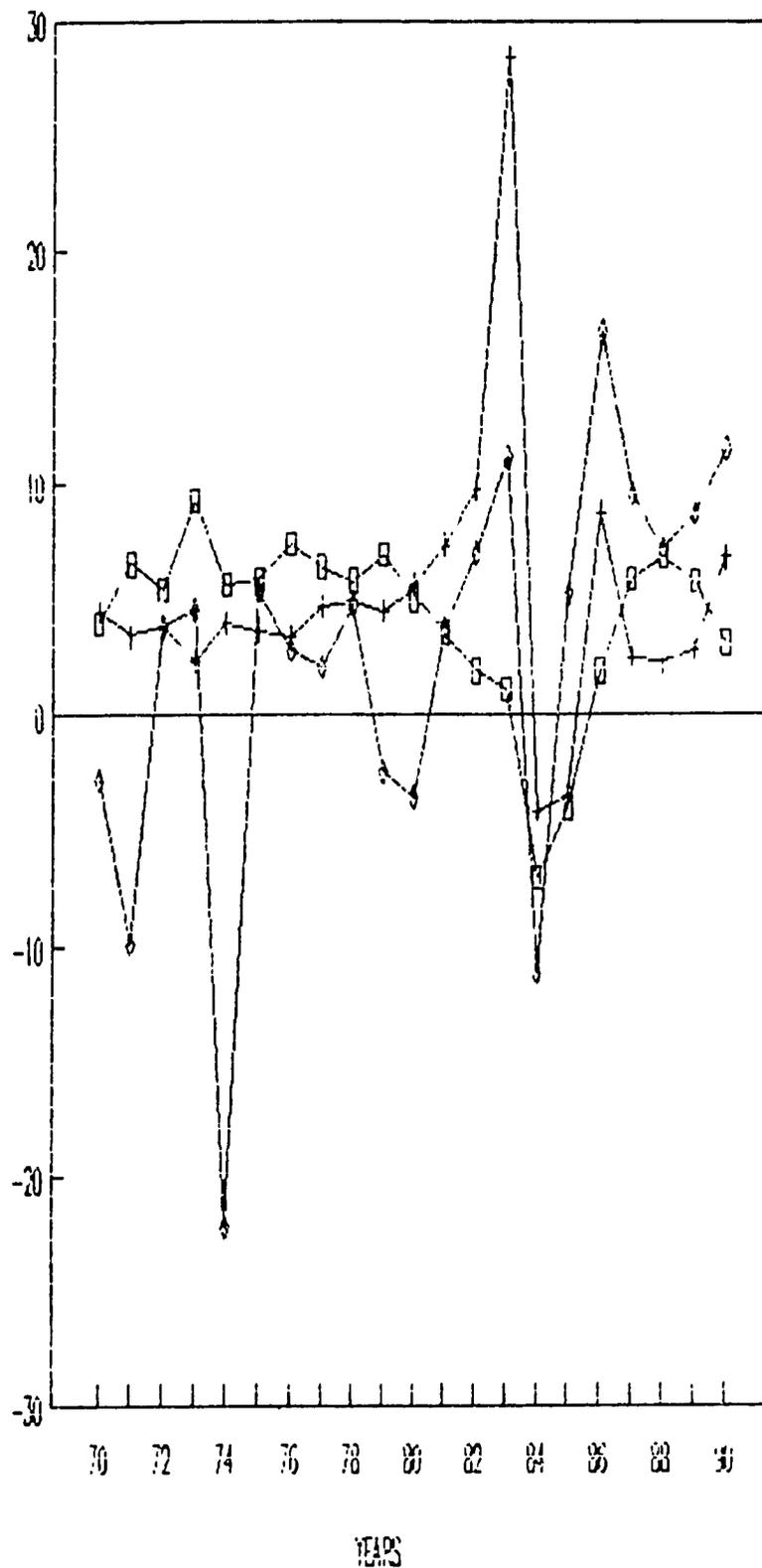
Since banks were lending to industries, it would follow from the finding above that they had misallocated credit. Table 4.10 shows the distribution of their loans by industry. The agriculture sector has consistently obtained the lowest share in total loans outstanding. There seems to be no pattern of an increasing share of agricultural loans. Among the various types of banks, commercial banks had the largest share of agricultural loans granted (Table 4.11).

Interestingly, the share of rural banks in total agricultural loans granted declined since 1981. It is to be noted that since the 1980 financial reforms, rural banks were not restricted anymore to agricultural lending. Thus, a number of them shifted to non-agricultural loans to diversify their loan portfolio. However, in terms of the ratio of agricultural loans granted to total loans granted by each type of banks, still rural banks have remained at the forefront (Table 4.12); that is, their loan portfolio still largely consists of agricultural loans.

The phase out of special credit programs for the agriculture sector that were coursed through the rural banks and the change in rediscounting policy of the Central Bank in 1985 seemed to have elicited appropriate response from the rural banks. In particular, they started to mobilize more deposits after 1985 (Table 4.13). In fact, their deposits in real terms and deposit-to-borrowing ratio consistently increased since 1985, suggesting that they are increasingly relying on deposits to finance their lending operations. This finding is not

FIGURE 4.14 Real GNP Growth Rate (GNPR), ICOR, and Real Interest Rates on Secured Loans (SECLNR), 1970-1990

Year	GNPR	ICOR	SECLNR
1970	3.91	4.36	(2.85)
1971	6.49	3.42	(9.90)
1972	5.36	3.79	3.77
1973	9.26	2.27	4.50
1974	5.60	3.94	(22.16)
1975	5.80	3.60	5.22
1976	7.40	3.34	2.77
1977	6.34	4.65	2.07
1978	5.76	4.89	4.71
1979	6.89	4.43	(2.51)
1980	4.96	5.54	(3.60)
1981	3.45	7.31	3.61
1982	1.90	9.75	6.92
1983	1.11	28.49	11.11
1984	(7.07)	(4.19)	(11.25)
1985	(4.12)	(3.53)	5.20
1986	1.86	8.72	16.55
1987	5.81	2.41	9.51
1988	6.75	2.23	7.16
1989	5.70	2.78	8.67
1990	3.08	6.72	11.44

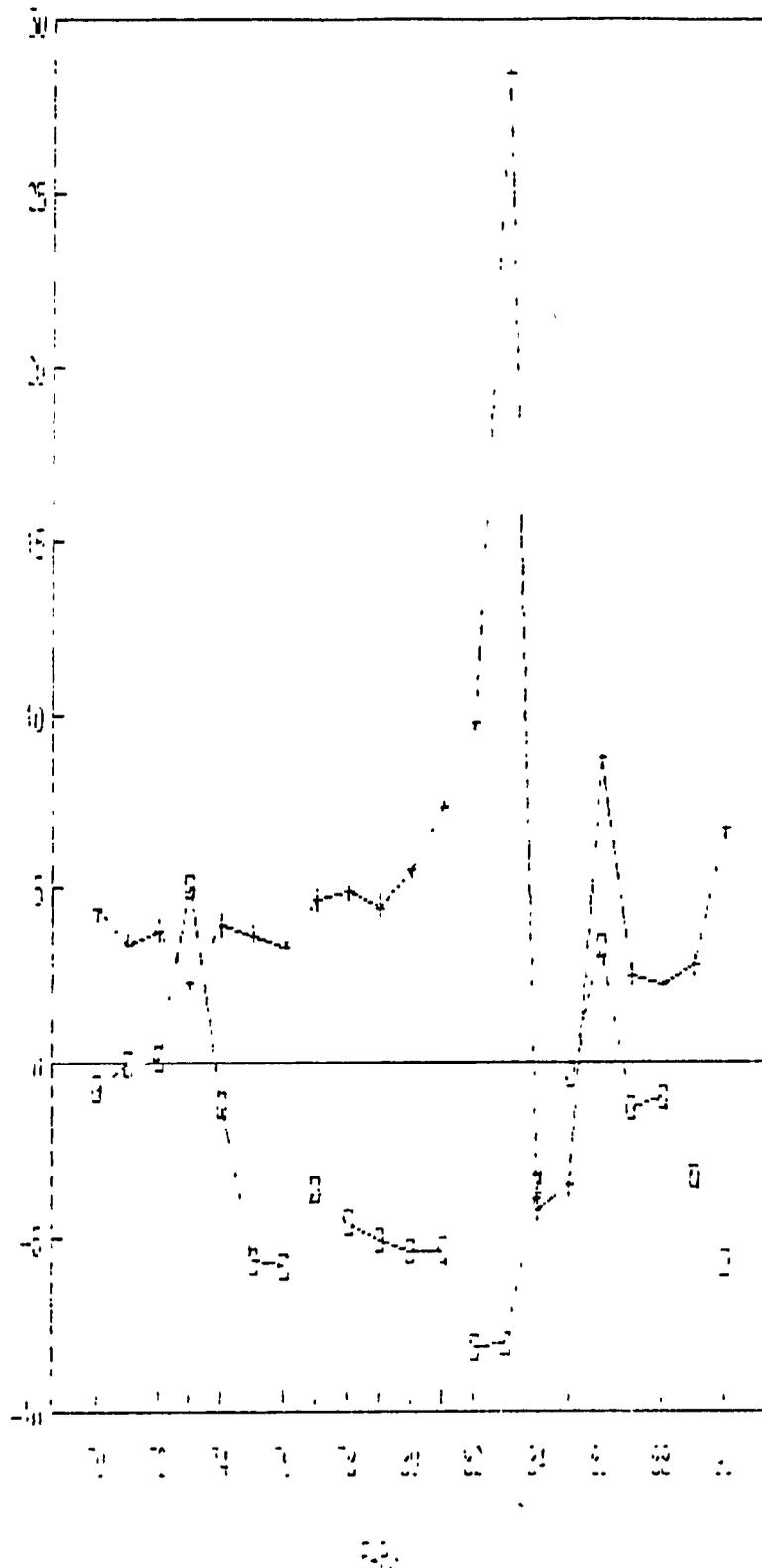


Source: Central Bank: Domestic - D.E.R.

□ GNPR + ○ ICOR + △ SECLNR

FIGURE 4.15 ICOR and Current Account Deficit as a Percent of GNP

Year	ICOR	CUR/GNP
1970	4.36	(0.75)
1971	3.42	(0.04)
1972	3.79	0.11
1973	2.27	5.02
1974	3.94	(1.20)
1975	3.60	(5.65)
1976	3.34	(5.82)
1977	4.65	(3.63)
1978	4.89	(4.58)
1979	4.43	(5.06)
1980	5.54	(5.41)
1981	7.31	(5.36)
1982	9.75	(8.15)
1983	28.49	(8.07)
1984	(4.19)	(3.53)
1985	(3.53)	(0.32)
1986	8.72	3.30
1987	2.41	(1.30)
1988	2.23	(1.00)
1989	2.78	(3.29)
1990	6.72	(5.76)



Source: Central Bank, Jamaica - C.B.S.

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TABLE 4.10 Total Loans Outstanding Classified by Industry (in Million Pesos)

End of Period	1/ TOTAL	Agriculture	Industry	Services
1977	41,895.6 (100 00)	5,540 0 (13 22)	16,018 9 (38 24)	20,336 7 (48 54)
1978	56,492 9 (100 00)	5,950 2 (10 53)	23,438 0 (41 49)	27,104 7 (47 98)
1979	72,193.9 (100 00)	8,525 8 (11 81)	31,593 4 (43 76)	32,074 7 (44 43)
1980	79,690.3 (100 00)	12,690 5 (15 92)	35,572 9 (44 64)	31,426 9 (39 44)
1981	91,097 8 (100.00)	11,616.4 (12.75)	39,624.0 (43 50)	39,857 4 (43.75)
1982	103,719 9 (100 00)	13,428.6 (12 95)	47,010 2 (45 32)	43,281 1 (41.73)
1983	122,793 2 (100 00)	16,852 2 (13.72)	57,343 4 (46 70)	48,597 6 (39 50)
1984	127,202 0 (100 00)	11,260.1 (8.85)	63,444 8 (49 88)	52,497.1 (41 27)
1985	98,170.9 (100 00)	11,067.2 (11 27)	42,135.4 (42 92)	44,968 3 (45 81)
1986	94,827 6 (100 00)	14,871.5 (15.68)	36,759 8 (38.76)	43,196 3 (45.55)
1987	109,030 4 (100 00)	13,786.6 (12 64)	54,030 3 (49 56)	41,213 5 (37 80)
1988	137,859.9 (100.00)	16,760.9 (12.16)	66,987.1 (48.59)	54,111 9 (39 25)
1989	180,083.9 (100 00)	15,980.0 (8 87)	92,503.7 (51.37)	71,600 2 (39.76)
1990	215,131.1 (100 00)	18,937.9 (8 80)	110,958 4 (51 58)	85,234 8 (39.62)

1/ Excluding past due items, items in litigation, domestic and foreign bills, clean; except data for PNB from 1977 to 1979.

2/ Excluding loans outstanding of stock savings and loan associations due to differences in industry classification.

Note: Figures in parentheses are percent to total

Sources of basic data: (a) CBP Form-Nos 5-17-01, 5-17-02, and 5-17-09 (Summary Report on Loans).

(b) Supervisory Reports and Corporate Analysis Department (SRCAD).

**TABLE 4.11 Distribution of Total Agricultural Loans Granted by Institution
(in Million Pesos)**

Institution	1981	1985	1990
Commercial Banks (KBs)	18916.6 (81.9)	24204 (88.3)	31583.6 (87.1)
Thrift Banks (TBs)	436.8 (1.9)	365.6 (1.3)	3115.7 (8.6)
Specialized Government Banks (SGBs)	78.8 (0.3)	242.2 (0.7)
Rural Banks (RBs)	3729.9 (16.2)	2777.9 (10.1)	1334.4 (3.7)
TOTAL	23083.3	27426.3	36275.9

Note: Values in Parentheses are Percent to Total

Source of Basic Data: Central Bank, SRO.

**TABLE 4.12 Ratio of Agricultural Loans Granted to Total Loans Granted,
by Institution, (in Million Pesos)**

Institution	1981	1985	1990
Commercial Banks (KBs)	7.5	9.0	6.2
Thrift Banks (TBs)	4.3	4.6	4.8
Specialized Government Banks (SGBs)	0.0	10.5	7.5
Rural Banks (RBs)	85.0	71.4	52.2
TOTAL	8.4	9.7	6.2

Source of Basic Data: Central Bank, SRO.

TABLE 4.13 Selected Accounts of the Rural Banking System, 1984-1990
(in Million Pesos, at a constant price of 1972)

Year	Assets		Loan Portfolio		Deposit Liabilities		Capital Accounts		Total Borrowings		Deposit-to-Borrowings Ratio (percent)
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	
1984	9023.3	1568.1	7022.5	1220.4	3316.2	576.3	1510.3	262.5	3561.7	619.0	93.1
1985	8821.7	1299.9	6636.3	977.9	3018.7	444.8	1580.9	232.9	3465.5	510.6	87.1
1986	9350.5	1359.5	6790.5	987.3	3767.1	547.7	1698.9	247.0	3175.2	461.7	118.6
1987	9960.8	1341.1	7227.0	973.0	4516.3	608.1	1859.8	250.4	2759.6	371.5	163.7
1988	11018.2	1353.5	7970.2	979.1	5269.0	647.3	2038.0	250.4	2682.4	329.5	196.4
1989	12521.8	1391.3	8859.0	984.3	6253.8	694.9	2301.3	255.7	2495.1	277.2	250.6
1990	13862.1	1348.3	9735.7	946.9	7067.2	687.4	2693.1	261.9	2521.7	245.3	280.3

Source of Basic Data: SRO. Central Bank.

consistent with the view that there are no deposits to be mobilized from predominantly agricultural, rural areas and that the only way to finance agricultural activities is through the provision of cheap government funds coursed through rural banks.

Due to lack of access to institutional credit, the agriculture sector relies heavily on the informal credit markets (ICMs). As can be observed from Table 4.14, a very high proportion of farmers had obtained loans from the ICMs. The proliferation of rural banks and special credit programs for the agriculture sector in the 1970s and early 1980s seemed to have reduced farmers's reliance on the ICMs. However, the closure of several rural banks and the phasing out of several special credit programs for the agriculture sector in the second half of the 1980s may have compelled again more farmers to secure loans from the ICMs.

TABLE 4.14 Percent of Farmers with Loans from Informal Sources, Various Surveys, Philippines

Reference Year	Survey Area	Total Number of Borrowing Respondents	% of Borrowing who obtained Informal Loans
1950s			
1. 1954-55	Nationwide	5,144 farmers	74.0
1960s			
2. 1960-61	Nationwide	1.1 million farm households (majority rice farmers)	88.1 ^b
1970s			
3. 1976	Nueva Ecija, Laguna Camarines Sur, Iloilo Zamboanga del Norte	85	74.1
4. 1977	Nueva Ecija, Laguna Camarines Sur, Iloilo Zamboanga del Norte,	78	79.5
5. 1978	Nueva Ecija, Laguna, Camarines Sur, Iloilo Zamboanga del Norte	74	76.4
6. 1978	Bulacan, Camarines Sur, Isabela	912 farmers (mainly rice farmers)	72.5
1980s			
7. 1981-82 (FIS) Nationwide		1,699 farm households	68.2
8. 1986 (RSM)	Batangas, Camarines Sur, Pangasinan, Negros Oriental, Iloilo, Misamis Oriental	502 farm and non-farm households	85.4
9. 1987/88 (ICM)	Nueva Ecija, Laguna Quezon, Batangas	322 farm, non-farm households	94.4

^aIncludes farmer-borrowers or households who borrowed from both formal and informal sources.

^bIn % of farm households (with cash loans only) who reported being mostly depended on informal source. Of the total household sample only 9 households reported to have borrowed in kind.

Source: Ernesto Bautista and Marife Magno (1990).

5. IMPACT OF FINANCIAL AND TRADE LIBERALIZATION ON THE AGRICULTURE SECTOR: SIMULATION RESULTS

The issues in financial liberalization discussed in Chapter 3 and the analysis on the performance of the Philippine financial system presented in Chapter 4 provide some lessons on how to proceed with the liberalization process. Optimal sequencing of liberalization has been proposed. In particular, stability of the economy should not be compromised in any liberalization efforts.

This chapter attempts to analyze the impact of financial and trade liberalization on the economy with special reference to the agriculture sector. A simulation analysis is performed for the period 1992-2000 using the PIDS-NEDA macroeconometric model. The main features of the model is briefly discussed below. A baseline will be established first and later on aspects of trade and financial liberalization episodes will be introduced as exogenous shocks to the baseline. It is to be noted that this exercise is not intended to give precise magnitudes of the effects of changes of certain policies, but only general directions of the effects of such policy changes.

5.1 Description of the Model

This study makes use of the existing PIDS-NEDA macroeconometric model developed by Constantino et al. (1990). There is no need to discuss in detail the features of the model since it is available to the public in a working paper form. What we will do here is to highlight some aspects of the model that are important to the issues being addressed in this study.

The model is based on a combination of classical, Keynesian, structuralist and monetarist concepts. This is necessary to reflect Philippine realities. For instance, since the Philippine economy is still largely dependent on the agriculture sector, aggregate supply plays an important role in determining output.

There are four major blocks in the model, namely: (1) the real sector consisting of the production, expenditure and employment, and wages and prices; (2) the fiscal sector; (3) the financial sector; and (4) the external sector. Under the real sector, the production sector consists of the fixprice sector which has an adjusting output level and fixed prices, the flexprice sector which has fixed output level and adjusting prices, and the flexquantity/flexprice sector which has adjusting output level and prices. The first is more appropriate for the industrial sector which is characterized by oligopolistic market structure. The second is applicable to some agricultural crops, such as coconut and sugar, which are facing some capital or resource constraints. The third applies to some agricultural crops and to the rest of the agriculture sector. Note that supply of certain agricultural crops could respond to price changes even in the short-run due to multi-cropping within a year. Aside from output price, supply responds to prices of inputs, such

as labor, fertilizer and feeds. Availability of loanable funds also affects supply.¹⁴ Thus, in the equations for the supply of agricultural commodities, availability of credit, which is proxied by rural bank loans to the agriculture sector, enters as an argument. This variable, in turn, is affected by the general condition of the monetary sector; that is, in times of tight monetary policy, loans of rural banks to the agriculture sector should decline. In short, the model establishes a strong linkage between the agriculture sector and the monetary sector via the availability of credit.

The determination of fiscal sector deficit is the main focus of the fiscal block. The deficit is being financed by currency creation, tax on intermediation (reserve requirement), domestic open market operation, and foreign borrowing.

The financial sector block centers on the determination of demand and supply of money using the reserve multiplier concept. Demand function is specified for the various types of financial assets, such as currency, demand deposits, savings deposits, time deposits and deposit substitutes. Aside from reserve requirement ratio, these factors affect the money multiplier. On the other hand, the monetary base is determined in terms of the asset side of the Central Bank, i.e., net foreign assets and net domestic assets. Fiscal deficits partly affect net domestic assets.

The external sector block consists of three smaller blocks, namely exports, imports and balance of payments. In the export sector block, commodity exports have been divided into agricultural and manufactured goods. Included in the former are exports of coconut products, exports of sugar (quota and non-quota) and exports of other agricultural products.

The list of endogenous variables is presented in Annex A.¹⁵ There are 114 behavioral equations and 53 identities. The equations were estimated using data series for the period 1967-1987. However, some equations used shorter periods due to lack of data for earlier years.

5.2 Baseline Scenario: Assumptions and Results

Sixty-two (62) variables are assumed to be exogenous. Their corresponding values for the period 1991-2000 are given in Annex B. The assumptions are based on most recent available information gathered from published and unpublished reports of government agencies and from studies done here and abroad. Whenever information about certain variables included in the list of assumptions is not available, their past growth patterns are assumed to remain for the next ten years with some adjustments based on our evaluation of the likely growth patterns of the variables. One example here is the nominal growth of legislated wages for agriculture.

¹⁴This is a more appropriate independent variable than interest rate. Various studies have pointed out that farmers are more concerned about access to credit than the price of credit (TBAC 1985, Lararte and Lim 1987). Their willingness to pay very high interest rates is demonstrated by their persistent borrowing from the informal credit markets.

¹⁵The estimated equations are given in Constantino et al. (1990). They are not reproduced here for lack of space.

Exchange rate is exogenously determined in the model. The most recent information seems to suggest that the exchange rate will average ₱27 per US\$1 dollar in 1991. In the past, the exchange rate depreciated by not more than 5 percent per year (except in 1990), despite very high domestic inflation rates relative to those of trading partners and foreign competitors. Thus, it seems reasonable to assume that the exchange rate will depreciate by 5 percent per year for the next ten years. This is a more realistic assumption on the exchange rate than having a fixed exchange rate all throughout the projection period.

The model includes as exogenous variables tariff rates on 7 groups of merchandise imports, namely: fuel products, basic metals, cereals, chemicals, textiles, machinery and transport equipment, and other commodities. It is assumed that the tariff reforms will not be pushed through starting in 1992 as scheduled. Thus, the 1991 average tariff rates on these five groups of commodities will remain up to 2000.

The present reserve requirement on all deposit liabilities of banks is 25 percent. It is assumed that the Central Bank will retain this rate up to 2000 to stabilize the economy and to keep inflation rate at a single digit level. Interest rates are assumed to remain the same at their current levels up to 2000. The low interest rate on savings deposits still reflects the assumption of the existence of the oligopoly power of banks in the small deposit market. Implied in this, of course, is a very restrictive policy on bank entry and branching.

In general, the assumptions given above portray a scenario in which there is virtually no financial and trade liberalization to be expected between 1992 and 2000, except for the modest rise in the exchange rate.

The results of the baseline scenario are shown in Table 5.1. The stabilization measures will succeed in gradually reducing the budget deficit ratio over the years and in containing inflation. Thus, the Treasury bill rate will decline over the years. The economy will start to recover in 1992, posting a 3.82 percent growth rate. Growth will gradually accelerate in the succeeding years. For the entire period 1992-2000, GNP growth rates will average 6.2 percent per year. All the major sectors of the economy will post positive growth rates.

The agriculture sector will attain an impressive growth rate, which will average 4.42 percent annually during the forecast period. Livestock and poultry will be the fastest growing sector in the agriculture sector. Within the crops sector, corn will achieve the highest average growth rate during the period indicated. One factor that explains the impressive growth rate of agriculture is the availability of agricultural credit. As a proxy for the availability of agricultural credit, loans to rural banks by the monetary authorities will grow by 18 to 25 percent. The gradual upward adjustment in the exchange rate is translated into higher fertilizer prices. However, its negative effect on agricultural production is outweighed by the positive effects of other determinants of agricultural production such as the availability of credit.

5.3 Financial Liberalization Episode

There are four elements to be considered here, namely: reduction in the budget deficit; reduction in intermediation taxes; liberalization of bank entry and branching; and liberalization of the foreign exchange market. The effects of each of these factors will be analyzed below.

5.3.1 Reduction in the Budget Deficit

It has been pointed out in Chapter 3 that it is very important to achieve stability to maximize the benefits from liberalization policy. In the context of the Philippine economy, the large budget deficit of the government has been the main destabilizing factor. Thus, it is important to address the budget deficit to achieve some kind of stability.

It is assumed here that the government will be able to reduce its deficit by increasing its tax revenues by 10 percent over the baseline. Since the Central Bank is partly financing the budget deficit of the government through money creation, a decrease in the budget deficit will give the Central Bank an opportunity to reduce money creation.

The results of this stabilization measure is shown in Table 5.2. As expected, total liquidity will grow at a slower pace than the baseline. Thus, inflation rate will be lower than the baseline. The Treasury bill rate will decline much faster than the baseline because the fiscal authorities will reduce its borrowing from the public. Lower interest rate induces more investment. As a result, gross capital formation will increase much faster than the baseline. In contrast, personal consumption will be adversely affected because the increase in tax revenues will reduce disposable income of the private sector.

In general, the impact of this measure on the economy is favorable. GNP will grow slightly higher than the baseline. However, it will have differential impacts on the various sectors of the economy. In particular, the industrial and services sectors will be favorably affected by such stabilization measure while the agriculture sector will be adversely affected. In fact, the value added of all the sub-sectors in agriculture will decline relative to the baseline. One of the major reasons for this is that the availability of credit to the agriculture sector will be reduced as total liquidity declines (relative to the baseline). The domestic demand for agricultural products will also decline since personal consumption enters as an argument in the demand functions for agricultural products.

5.3.2 Reduction in Intermediation Taxes

Despite interest rate liberalization effected since 1981, the financial system is still repressed. As noted in Chapter 4, various types of explicit taxes on financial intermediation still exist, viz., the agri/agra loan, the gross receipts tax imposed on interest income and the 20 percent tax on interest income from deposits. At present, the reserve requirement on deposit liabilities of banks, which is a form of an implicit tax, is set at a very high level (25 percent). This is done to partly finance the budget deficit and to stabilize the economy. The frequent

TABLE 5.1 Baseline Scenario

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP (% change)										
Personal Consumption	4.37	5.98	5.68	5.43	5.19	5.75	5.52	5.94	6.12	5.84
Government Consumption	2.22	2.14	5.61	5.13	5.35	5.54	5.13	4.69	4.07	3.78
Gross Domestic Capital Formation	-0.01	8.08	11.39	13.00	12.38	11.30	10.07	10.27	11.06	11.25
Durable Equipment	-2.39	7.35	11.47	12.96	12.36	11.05	10.31	10.93	11.92	11.74
Private Construction	-2.82	5.13	7.68	11.47	11.69	11.84	11.39	11.30	12.16	13.23
Public Construction	1.37	9.50	12.41	11.45	10.08	8.35	3.94	3.32	3.36	3.48
Exports	6.16	7.36	9.22	8.97	9.40	9.17	8.75	8.64	7.84	7.49
Exports of Goods	4.96	7.69	10.33	10.04	10.56	10.20	9.02	9.07	8.15	7.77
Garments	6.10	7.37	9.02	9.76	10.53	11.29	11.44	11.51	12.07	11.31
Semiconductors	8.91	7.92	8.99	9.06	10.97	9.46	10.56	11.56	9.81	9.56
Coconut products	-1.63	3.30	3.38	3.79	4.24	3.38	2.87	3.74	3.88	3.65
Other agricultural products	0.24	3.95	-6.12	7.50	7.28	7.51	8.29	8.94	8.22	9.71
Other manufactured goods	3.85	8.52	14.96	11.11	10.43	11.13	5.33	6.38	4.78	3.71
Other goods	4.30	8.43	12.75	11.42	11.46	10.73	8.92	7.98	6.66	6.34
Exports of Non-factor Services	10.63	6.18	5.24	4.92	4.81	4.88	7.57	6.76	6.43	6.20
Imports	1.78	10.99	6.44	8.66	9.90	10.23	9.84	9.78	9.99	9.07
Imports of Goods	3.30	10.21	6.43	8.59	9.86	10.20	9.88	9.85	10.03	9.08
Fuel products	4.34	10.00	4.21	7.28	8.72	10.72	8.54	9.39	10.37	9.74
Machinery	1.85	11.51	6.60	11.20	12.59	12.40	11.50	12.28	12.22	10.02
Basic metals	2.71	7.99	6.62	8.45	10.95	10.95	9.07	11.10	10.26	10.24
Cereals	9.66	20.42	6.94	3.40	2.25	2.14	2.18	2.44	2.68	2.90
Chemicals	2.53	11.91	8.28	10.32	12.03	13.23	12.71	11.69	11.99	10.54
Textile yarns	5.77	17.61	11.84	9.51	10.51	14.76	12.80	11.45	12.20	9.16
Other imports	3.16	7.75	6.24	7.89	9.27	9.60	9.92	8.95	9.17	8.86
Imports of Non-factor Services	-26.91	32.02	6.66	10.28	10.71	10.82	8.93	8.39	9.09	8.95
Gross National Product	0.51	3.82	5.52	5.66	5.12	5.71	5.85	6.29	6.80	7.14
Gross Domestic Product	0.60	3.83	5.49	5.65	5.00	5.55	5.75	6.25	6.69	6.99
B. Production (% change)										
Production of Palay	-0.51	2.50	1.84	2.33	2.44	2.59	4.36	6.08	5.75	5.71
Demand for Rice	4.89	4.64	5.61	5.25	5.38	6.04	15.40	-3.41	5.99	5.15
Farmgate Price of Palay	13.20	18.87	16.07	16.20	16.17	15.93	15.19	17.65	12.93	17.50
Value-added in Agriculture	1.99	3.79	4.37	4.56	3.85	3.81	4.75	5.38	4.76	4.52
Crops	0.31	2.79	3.98	4.51	3.40	3.41	4.42	4.87	4.49	4.55
Palay	-0.39	3.26	3.75	3.34	3.62	3.22	4.39	5.90	5.02	4.87
Corn	4.24	3.36	6.16	5.80	4.67	4.26	7.15	5.89	5.19	6.67
Sugar	1.26	3.34	3.98	3.30	3.59	3.90	3.94	3.50	3.35	2.84
Coconut	0.44	5.09	2.33	3.77	0.38	0.83	2.40	2.66	1.76	2.77
Other crops	-0.50	1.78	3.84	5.18	3.49	3.74	4.04	4.46	4.57	4.18
Livestock and Poultry	4.94	6.12	4.86	4.43	4.45	5.34	6.61	7.26	6.29	5.76
Fishery	3.63	4.20	5.34	5.33	4.75	3.32	3.66	4.77	3.80	2.98
Value-added in Industry	-0.80	3.85	6.53	6.83	5.93	7.20	7.35	7.86	8.88	9.58
Manufacturing	-0.68	3.86	5.93	6.59	5.83	7.20	7.94	8.38	9.42	10.04
Food	-1.01	3.96	4.59	5.79	4.85	4.50	7.80	7.67	7.45	7.71
Semiconductors	2.60	6.00	8.29	8.08	8.57	9.05	9.88	10.25	10.95	9.68
Garments	7.12	5.77	6.39	6.05	6.33	5.53	6.70	10.49	11.13	10.93
Other manufacturing	-2.42	2.91	6.65	7.13	6.03	9.69	7.83	8.17	10.53	12.05
Construction	-1.31	4.81	11.94	10.29	8.46	10.06	7.08	7.63	8.42	9.56
Mining and Quarrying	0.85	2.29	4.14	3.90	4.22	3.08	2.89	3.47	4.65	5.70
Electricity, gas, & water	-2.3141	2.6334	2.832	3.2026	1.5692	1.8926	2.8437	4.1003	4.868	5.0292
Value-added in Services	0.82	3.84	5.41	5.41	4.98	5.31	5.04	5.42	5.99	6.20

TABLE 5.1 (cont')

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agriculture										
Loans to Rural Banks (% change)	23.35	24.56	21.83	21.31	20.99	21.12	20.66	19.67	18.92	17.60
Price of Fertilizer (% change)	33.42	23.67	19.45	15.84	14.04	12.96	12.19	11.61	11.13	10.73
D. Prices, Employment										
Consumer Price Index (% change)	15.23	9.87	9.72	8.20	9.40	9.23	10.03	10.92	10.52	10.32
Wages of Unskilled Workers (% change)	12.60	7.90	3.20	2.49	4.24	3.17	6.33	6.85	8.17	7.77
Full-time unemployment rate	23.85	25.46	26.09	26.16	26.30	26.25	25.96	25.33	24.67	24.11
E. External Accounts										
Balance of Payments (mil \$)	1277.19	1049.56	1895.52	1428.49	1514.40	1158.44	1332.82	1565.79	1205.75	1359.43
Current Account (mil \$)	-1760.81	-1786.44	-1640.58	-1685.91	-1669.85	-1804.26	-1743.28	-1660.76	-2113.70	-2156.97
Current Account Ratio	-3.75	-3.44	-2.89	-2.74	-2.48	-2.44	-2.13	-1.81	-2.57	-1.87
F. Monetary Accounts										
Total Liquidity (% change)	13.06	15.27	12.42	14.25	14.96	16.21	16.05	15.33	15.31	14.04
Money Supply (% change)	10.97	15.60	13.71	13.22	13.80	14.34	15.46	16.91	17.28	17.38
90 day T-Bill rate	23.26	21.07	20.63	19.96	19.67	19.52	19.11	18.68	17.48	17.25
Money multiplier	1.99	1.61	1.35	1.17	1.05	0.97	0.92	0.89	0.87	0.86
Savings Deposits (% change)	15.37	17.77	14.42	13.25	13.34	13.61	14.58	15.94	16.39	16.51
Time Deposits (% change)	2.58	14.28	13.77	13.49	14.38	15.02	16.11	17.55	17.77	17.98
Deposit Substitutes (% change)	67.82	38.49	28.09	23.12	21.27	20.42	20.41	21.01	20.97	20.76
G. Fiscal Accounts										
Budget Deficit (mil P)	44277.59	38367.96	45678.14	49509.52	45730.22	51365.32	41836.30	34859.87	5377.51	-7680.23
Deficit Ratio	3.48	2.61	2.71	2.57	2.07	2.02	1.42	1.00	0.13	-0.16
Revenue Effort	15.90	15.69	15.64	16.08	16.16	15.90	15.89	15.51	15.58	15.19
Tax Effort	13.97	14.07	14.20	14.72	14.89	14.77	14.85	14.56	14.70	14.37
Revenues (% change)	13.21	14.53	14.38	17.22	15.27	13.23	16.17	14.79	18.41	15.01
Taxes (% change)	18.69	18.14	16.27	19.20	16.76	14.82	17.50	15.75	19.41	15.68
H. Other Values										
Nominal GDP	1267069	1470661	1687711	1924648	2207549	2543182	2955680	3476659	4095840	4833067

30 October 1991 version

(Financial Liberalization/TAB23.wk1/12-06-91)

TABLE 5.2 Reduction in Budget Deficit, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.09	-0.19	-0.27	-0.34	-0.38	-0.41	-0.43	-0.43	-0.41
Government Consumption	0.00	0.09	0.30	0.56	0.86	1.16	1.45	1.76	2.10	2.46
Gross Domestic Capital Formation	0.00	0.34	0.49	0.71	0.94	1.26	1.56	1.81	2.06	2.29
Exports	0.00	0.34	0.36	0.50	0.63	0.73	0.80	0.93	1.07	1.19
Imports	0.00	0.00	-0.01	-0.02	-0.04	0.00	0.00	0.03	0.09	0.14
Gross National Product	0.01	0.07	0.10	0.15	0.28	0.30	0.44	0.60	0.71	0.85
Gross Domestic Product	0.00	0.09	0.12	0.18	0.22	0.35	0.43	0.54	0.70	0.85
B. Production										
Production of Palay	0.00	-0.05	-0.21	-0.53	-0.99	-1.51	-2.00	-2.38	-2.67	-2.87
Demand for Rice	0.00	-0.29	-0.68	-0.97	-1.24	-1.42	-1.53	-1.81	-2.00	-2.20
Farmgate Price of Palay	0.00	0.00	-0.11	-0.31	-0.48	-0.59	-0.61	-0.59	-0.55	-0.48
Value-added in Agriculture	-0.01	-0.15	-0.47	-0.79	-1.17	-1.45	-1.75	-2.05	-2.28	-2.48
Crops	-0.01	-0.06	-0.25	-0.50	-0.85	-1.09	-1.39	-1.66	-1.82	-1.95
Palay	-0.01	-0.03	-0.24	-0.56	-1.06	-1.51	-2.03	-2.45	-2.71	-2.91
Corn	-0.01	-0.04	-0.18	-0.32	-0.49	-0.54	-0.57	-0.60	-0.59	-0.52
Sugar	-0.01	-0.32	-0.66	-1.01	-1.32	-1.45	-1.65	-1.75	-1.75	-1.81
Coconut	0.00	-0.12	-0.58	-1.20	-2.07	-3.12	-4.29	-5.52	-6.90	-8.28
Other crops	0.01	-0.04	-0.17	-0.31	-0.54	-0.54	-0.64	-0.74	-0.70	-0.64
Livestock and Poultry	0.00	-0.46	-1.19	-1.81	-2.41	-2.88	-3.28	-3.68	-4.10	-4.46
Fishery	-0.01	-0.05	-0.21	-0.39	-0.61	-0.73	-0.90	-1.07	-1.21	-1.35
Value-added in Industry	-0.01	0.29	0.60	0.93	1.22	1.60	1.86	2.15	2.48	2.74
Manufacturing	-0.01	0.23	0.43	0.69	0.92	1.23	1.45	1.70	1.98	2.30
Food	-0.01	0.00	0.00	0.07	0.11	0.29	0.36	0.48	0.67	0.85
Semiconductors	-0.01	0.32	0.40	0.55	0.62	0.80	0.83	0.86	0.94	1.00
Garments	-0.01	0.31	0.59	0.86	1.06	1.36	1.55	1.65	1.79	1.89
Other manufacturing	-0.01	0.44	0.84	1.30	1.76	2.19	2.60	3.06	3.46	3.73
Construction	-0.02	0.73	1.67	2.41	3.02	3.72	4.22	4.78	5.46	5.98
Mining and Quarrying	-0.01	0.43	1.22	2.23	3.32	4.59	5.87	7.17	8.43	9.58
Electricity, gas, & water	-0.01	-0.13	-0.55	-1.03	-1.66	-2.20	-2.86	-3.60	-4.40	-5.30
Value-added in Services	0.00	0.08	0.13	0.21	0.32	0.45	0.60	0.78	0.98	1.17

TABLE 5.2 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	-0.01	-1.27	-2.43	-3.49	-4.24	-4.70	-5.04	-5.34	-5.62	-5.90
Price of Fertilizer	-	-	-	-	-	-	-	-	-	-
D. Prices, Employment										
Consumer Price Index	0.00	-0.30	-0.77	-1.16	-1.49	-1.74	-1.93	-2.23	-2.60	-2.87
Wages of Unskilled Workers	0.00	-0.16	-0.47	-0.82	-1.16	-1.49	-1.75	-2.08	-2.47	-2.82
E. External Accounts										
Balance of Payments	0.03	4.21	2.74	5.71	7.86	12.46	13.40	14.81	23.70	25.60
Current Account	0.02	2.48	3.16	4.84	7.13	8.00	10.24	14.06	13.52	16.14
F. Monetary Accounts										
Total Liquidity	0.01	-1.63	-2.49	-3.32	-3.78	-4.13	-4.44	-4.77	-5.10	-5.45
Money Supply	0.00	-0.06	-0.56	-0.86	-1.06	-1.28	-1.32	-1.48	-1.75	-1.90
9% day T-Bill rate	0.00	-1.78	-0.54	-0.73	-1.00	-1.28	-1.94	-2.28	-1.63	-1.34
Money Multiplier	0.00	-0.15	-0.22	-0.35	-0.42	-0.40	-0.38	-0.42	-0.39	-0.35
Savings Deposit	0.00	-0.02	-0.50	-0.78	-0.96	-1.16	-1.21	-1.37	-1.65	-1.80
Time Deposits	0.00	-0.21	-0.64	-0.96	-1.17	-1.40	-1.46	-1.60	-1.85	-1.99
Deposit Substitutes	0.00	-0.22	-0.68	-1.08	-1.37	-1.61	-1.71	-1.82	-2.01	-2.15
G. Fiscal Accounts										
Budget Deficit	0.00	-60.16	-57.80	-62.51	-78.01	-78.70	-112.25	-154.64	-1187.00	955.87
Revenue Effort	0.00	10.24	10.72	11.08	11.31	11.57	11.63	11.79	12.08	12.24
Tax Effort	0.00	10.24	10.72	11.08	11.31	11.57	11.63	11.79	12.08	12.24

changes of the reserve requirement in the 1980s and 1990s suggest that the Central Bank has been greatly ~~relying on~~ this instrument to influence the level of liquidity in the financial system. A substantial reduction or abolition of these intermediation taxes is part and parcel of the process of financial liberalization.

To simplify the analysis, it is assumed here that only the reserve requirement ratio will be reduced. This constitutes the largest component of the tax on intermediation since the Central Bank pays only 4 percent per annum on these reserves (World Bank 1988). In the 1980 financial reforms, the reserve requirement was envisioned to decline gradually to 16 percent. Hence, it is assumed that the reserve requirement will be reduced by the Central Bank in 1992 by two percentage points from 25 to 23 percent and by one percentage point thereafter until the 16 percent level is attained in 1999.

The results of this policy are shown in Table 5.3. The money multiplier increases faster than the baseline, which in turn raises total liquidity. This turns out to be inflationary, which adversely affects all the components of expenditures on GDP. It is to be noted that in the equations for private consumption, private construction investment, durable equipment, and government consumption, inflation rate enters as an argument having a negative sign.

Interestingly, this measure will have differential impact on the various sectors of the economy. In particular, the industrial and services sectors will be adversely affected since output prices of these sectors depend on prices of inputs such as labor. On the other hand, demand for these sectors negatively depends on sector prices and positively on indicators of aggregate demand. The high inflation rate is translated into higher input prices. For instance, wage rates of unskilled workers will rise above those of the baseline. Since these sectors apply mark-up pricing, output prices tend to rise as input prices increase. This, in turn, negatively affects demand for the outputs of these services.

In contrast, the agriculture sector will be positively affected by this policy action. One of the reasons is that with the rise in total liquidity, more funds could be made available by the rural banks to the agriculture sector. As shown in Table 5.3, loans of rural banks to the agriculture sector will be substantially higher than the baseline. And this positively affects supply of the agriculture sector. Another reason is that the inflationary impact of the rise in liquidity pushes up prices of agricultural products, particularly palay, which stimulate more agricultural production.

In general, however, the inflationary impact of the reduction in the reserve requirement brings instability to the economy. GNP will grow much slower than the baseline. This brings home the point that any financial liberalization measure, such as reduction in reserve requirement, should take into account its inflationary impact because it would just lead to instability of the economy.

TABLE 5.3 Reduction on Reserve Requirement, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999
A. Expenditures on GDP									
Personal Consumption	0.00	0.02	0.00	-0.08	-0.29	-0.68	-1.32	-2.25	-3.44
Government Consumption	0.00	-0.42	-1.67	-3.88	-7.00	-10.94	-15.33	-19.81	-23.85
Gross Domestic Capital Formation	0.00	0.03	-0.52	-1.82	-4.03	-7.05	-10.82	-15.20	-19.74
Exports	0.00	-0.51	-1.82	-3.69	-6.01	-8.71	-11.63	-14.49	-16.83
Imports	0.00	-0.05	-0.31	-0.80	-1.53	-2.44	-3.54	-4.83	-6.14
Gross National Product	0.00	-0.26	-1.01	-2.27	-4.06	-6.55	-9.52	-12.80	-16.00
Gross Domestic Product	0.00	-0.24	-1.01	-2.23	-4.08	-6.47	-9.41	-12.74	-15.98
B. Production									
Production of Palay	0.00	0.25	1.12	3.19	6.92	12.67	20.40	30.06	41.60
Demand for Rice	0.00	1.05	3.53	7.06	11.64	17.41	23.02	32.74	41.03
Farmgate Price of Palay	0.00	0.00	0.38	1.46	3.04	4.92	6.97	9.05	11.13
Value-added in Agriculture	0.00	0.76	2.74	6.02	10.87	17.80	26.74	37.62	49.79
Crops	0.00	0.36	1.29	3.03	5.74	9.80	15.04	21.55	28.95
Palay	0.00	0.36	1.49	3.99	8.31	15.05	24.05	35.29	48.43
Corn	0.00	0.20	0.68	1.45	2.39	3.54	4.64	5.63	6.18
Sugar	0.00	1.66	4.61	8.96	14.36	21.01	28.81	37.88	47.95
Coconut	0.00	0.71	3.13	8.06	17.14	31.83	52.95	82.09	119.56
Other crops	0.00	0.19	0.56	1.17	1.82	2.73	3.62	4.31	4.60
Livestock and Poultry	0.00	2.00	7.07	14.90	26.04	41.04	59.79	81.92	106.04
Fishery	0.00	0.42	1.63	3.79	7.06	11.87	18.25	25.99	34.88
Value-added in Industry	0.00	-1.18	-4.39	-9.29	-16.42	-25.51	-36.64	-49.31	-61.32
Manufacturing	0.00	-0.87	-3.28	-7.03	-12.45	-19.29	-27.35	-36.25	-44.28
Food	0.00	-0.31	-1.34	-3.07	-5.75	-9.33	-13.40	-18.08	-22.82
Semiconductors	0.00	-1.07	-3.66	-7.24	-11.99	-17.51	-24.03	-30.87	-36.78
Garments	0.00	-0.92	-3.27	-6.80	-11.86	-18.68	-27.17	-35.91	-43.89
Other manufacturing	0.00	-1.37	-5.13	-10.91	-19.19	-29.04	-41.14	-54.44	-65.52
Construction	0.00	-3.57	-12.17	-24.44	-41.77	-62.93	-90.67	-122.82	-154.02
Mining and Quarrying	0.00	-1.60	-6.85	-16.78	-32.57	-56.10	-88.83	-131.13	-179.39
Electricity, gas, & water	0.00	0.84	3.46	8.30	16.06	27.45	42.08	59.31	76.91
Value-added in Services	0.00	-0.17	-0.77	-1.89	-3.64	-6.07	-9.20	-12.87	-16.72

TABLE 5.3 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999
C. Other Variables related to Agri.									
Loans to Rural Banks	0.00	5.89	16.31	30.60	47.74	67.53	89.29	112.56	134.33
Price of Fertilizer	-	-	-	-	-	-	-	-	-
D. Prices, Employment									
Consumer Price Index	0.00	1.35	4.63	9.28	14.83	21.15	27.02	31.78	33.94
Wages of Unskilled Workers	0.00	0.70	2.75	6.22	10.91	16.99	23.17	29.06	32.87
E. External Accounts									
Balance of Payments	0.00	-5.26	-10.71	-30.49	-50.66	-106.57	-135.91	-161.11	-262.37
Current Account	0.00	-3.09	-12.38	-25.84	-45.94	-68.42	-103.81	-151.90	-149.67
F. Monetary Accounts									
Total Liquidity	0.00	7.45	18.36	32.62	48.64	69.52	91.66	115.64	136.34
Money Supply	0.00	1.00	3.40	6.43	9.60	12.48	14.08	14.02	11.63
90 day T-Bill rate	0.00	-1.76	-3.48	-6.09	-8.37	-10.15	-10.11	-8.71	-3.36
Money Multiplier	0.00	8.28	20.97	37.74	57.86	81.57	107.79	135.95	158.32
Savings Deposit	0.00	1.04	3.17	5.97	8.92	11.65	13.21	13.23	11.01
Time Deposits	0.00	1.02	3.39	6.48	9.74	12.69	14.36	14.33	11.97
Deposit Substitutes	0.00	1.07	3.55	6.81	10.54	13.89	16.08	16.57	14.81
G. Fiscal Accounts									
Budget Deficit	0.00	-3.08	-9.63	-19.09	-35.36	-46.99	-76.02	-107.53	-690.27
Revenue Effort	0.00	-0.52	-1.70	-3.26	-4.78	-5.99	-6.65	-6.46	-5.50
Tax Effort	0.00	-0.50	-1.67	-3.24	-4.82	-6.14	-6.93	-6.88	-6.05

5.3.3 Increase in Savings Deposit Rate

It was pointed out in Chapter 4 that the Central Bank has just recently liberalized bank entry and branching. The greater banking competition it will engender will have a more significant impact on the savings deposit market since as pointed out earlier, this is one market that existing banks seem to have some oligopolistic power. More specifically, the increased banking competition is expected to result in higher savings deposit rates, which would encourage savers to save more. It is assumed that the recently adopted liberal bank entry and branching policy will be sustained in the future, and as a result interest rate on savings deposits will increase according to the following schedule: 1992—from 5 to 8 percent; 1993—9 percent; 1994—10 percent; 1995—11 percent; and 1996 to 2000—12 percent.

The results of this policy are shown in Table 5.4. The volume of savings deposits will be a little higher than the baseline. The impact of this on total liquidity is very minimal. Hence, prices will not be affected at all. In general, it does not have a significant impact on key economic variables. However, it is worthwhile noting that it will have a slightly positive effect on some sub-sectors of the agriculture sector, specifically palay, coconut and livestock and poultry. This seems to be consistent with the new view that a more liberal bank entry and branching policy will help improve the financial intermediation, which, in turn, will contribute to the development of the agriculture sector.

5.3.4 More Rapid Depreciation of the Peso

The baseline already assumes a gradual depreciation of the peso vis-a-vis the U.S. dollar. In this scenario, a much more rapid depreciation of the peso is assumed in 1992 and a gradual depreciation thereafter. In particular, the peso will depreciate by 20 percent in 1992 and by 5 percent annually for the rest of the period. It has been pointed out in various studies that the domestic currency is overvalued by more than 20 percent (Medalla 1990).

The results of this policy action are shown in Table 5.5. As expected, exports will improve with the sharp depreciation of the peso. However, it is going to be inflationary, as may be seen from the significant rise of the CPI above the baseline. Inflation will mainly be imported as total liquidity will not significantly increase. It will have differential impacts on the three major economic sectors. In general, the industrial and services sectors will be adversely affected; that is, they will experience growth lower than the baseline. However, the export-oriented sub-sectors of the industry, such as garments and semi-conductors, will benefit from such policy.

On the other hand, the policy will have favorable effects on agriculture in the short-run. Although the domestic price of fertilizer increases with exchange rate depreciation, the corresponding increase in farmgate prices of palay stimulates more palay production. However, as demand for palay declines in 1996, palay production will decrease in subsequent periods. The beneficial effect on corn of a sharp devaluation is much shorter than palay. Starting in 1996, GVA for corn will be lower than the baseline. In contrast, the GVA for livestock and poultry

TABLE 5.4 Increase in Savings Deposit Rate, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	-	-	-	-	-	-	-	-	-	-
Government Consumption	-	-	-	-	-	-	-	-	-	-
Gross Domestic Capital Formation	-	-	-	-	-	-	-	-	-	-
Exports	-	-	-	-	-	-	-	-	-	-
Imports	-	-	-	-	-	-	-	-	-	-
Gross National Product	-	-	-	-	-	-	-	-	-	-
Gross Domestic Product	-	-	-	-	-	-	-	-	-	-
B. Production										
Production of Palay	0.00	0.01	0.03	0.06	0.08	0.10	0.10	0.08	0.04	-0.01
Demand for Rice	-	-	-	-	-	-	-	-	-	-
Paragate Price of Palay	-	-	-	-	-	-	-	-	-	-
Value-added in Agriculture	-	-	-	-	-	-	-	-	-	-
Crops	-	-	-	-	-	-	-	-	-	-
Palay	0.00	0.01	0.03	0.06	0.09	0.10	0.10	0.07	0.04	-0.01
Corn	-	-	-	-	-	-	-	-	-	-
Sugar	-	-	-	-	-	-	-	-	-	-
Coconut	0.00	0.03	0.07	0.11	0.15	0.18	0.20	0.18	0.15	0.10
Other crops	-	-	-	-	-	-	-	-	-	-
Livestock and Poultry	0.00	0.07	0.14	0.14	0.13	0.12	0.08	0.02	-0.03	-0.06
Fishery	-	-	-	-	-	-	-	-	-	-
Value-added in Industry	-	-	-	-	-	-	-	-	-	-
Manufacturing	-	-	-	-	-	-	-	-	-	-
Food	-	-	-	-	-	-	-	-	-	-
Semiconductors	-	-	-	-	-	-	-	-	-	-
Garments	-	-	-	-	-	-	-	-	-	-
Other manufacturing	0.00	-0.03	-0.09	-0.11	-0.11	-0.11	-0.10	-0.08	-0.05	-0.03
Construction	0.00	-0.11	-0.22	-0.23	-0.22	-0.20	-0.16	-0.10	-0.05	-0.01
Mining and Quarrying	0.00	-0.05	-0.14	-0.20	-0.24	-0.26	-0.26	-0.21	-0.14	-0.07
Electricity, gas, & water	0.00	0.03	0.07	0.10	0.12	0.13	0.11	0.07	0.03	-0.02
Value-added in Services	-	-	-	-	-	-	-	-	-	-

TABLE 5.4 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	0.00	0.20	0.28	0.29	0.27	0.23	0.14	0.05	-0.02	-0.07
Price of Fertilizer	-	-	-	-	-	-	-	-	-	-
D. Prices, Employment										
Consumer Price Index	-	-	-	-	-	-	-	-	-	-
Wages of Unskilled Workers	-	-	-	-	-	-	-	-	-	-
E. External Accounts										
Balance of Payments	0.00	-0.21	-0.23	-0.32	-0.29	-0.32	-0.11	0.12	0.48	0.71
Current Account	0.00	-0.12	-0.27	-0.27	-0.26	-0.20	-0.09	0.12	0.27	0.45
F. Monetary Accounts										
Total Liquidity	0.00	0.25	0.25	0.22	0.19	0.15	0.05	-0.03	-0.08	-0.11
Money Supply	-	-	-	-	-	-	-	-	-	-
90 day T-Bill rate	0.00	-0.24	-0.04	-0.05	-0.02	-0.01	0.23	0.41	0.52	0.41
Money Multiplier	0.00	0.29	0.30	0.27	0.22	0.17	0.05	-0.05	-0.11	-0.16
Savings Deposit	0.00	1.34	1.56	1.71	1.80	1.84	1.57	1.32	1.11	0.93
Time Deposits	-	-	-	-	-	-	-	-	-	-
Deposit Substitutes	-	-	-	-	-	-	-	-	-	-
G. Fiscal Accounts										
Budget Deficit	0.00	-0.13	-0.21	-0.22	-0.23	-0.19	-0.12	0.09	2.23	-2.58
Revenue Effort	-	-	-	-	-	-	-	-	-	-
Tax Effort	-	-	-	-	-	-	-	-	-	-

TABLE 5.5. More Rapid Depreciation in 1992, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.03	-0.10	-0.16	-0.22	-0.25	-0.26	-0.26	-0.25	-0.21
Government Consumption	0.00	-2.62	-4.78	-6.38	-7.44	-8.10	-8.47	-8.66	-8.69	-8.66
Gross Domestic Capital Formation	0.00	-0.42	-0.21	0.27	0.81	1.45	2.03	2.51	2.84	3.15
Exports	0.00	1.91	0.57	0.37	0.18	0.24	0.25	0.33	0.37	0.41
Imports	0.00	-0.89	-1.67	-2.04	-2.24	-2.29	-2.33	-2.33	-2.29	-2.26
Gross National Product	0.00	-0.27	-0.54	-0.62	-0.53	-0.48	-0.28	-0.10	0.07	0.22
Gross Domestic Product	0.00	-0.15	-0.46	-0.50	-0.52	-0.37	-0.27	-0.13	0.02	0.21
B. Production										
Production of Palay	0.00	3.39	5.45	6.06	5.51	4.13	2.29	0.50	-0.85	-1.67
Demand for Rice	0.00	-0.44	0.17	0.33	0.05	-0.32	-0.70	-1.10	-1.47	-1.82
Farmgate Price of Palay	0.00	6.76	5.00	3.10	1.54	0.41	-0.27	-0.51	-0.44	-0.20
Value-added in Agriculture	0.00	1.30	2.16	2.54	2.36	2.03	1.47	0.96	0.47	0.13
Crops	0.00	1.61	2.39	2.68	2.42	2.00	1.26	0.59	0.00	-0.34
Palay	0.00	4.15	6.24	6.97	6.38	5.10	3.20	1.41	0.03	-0.76
Corn	0.00	0.73	0.81	0.60	0.15	-0.17	-0.43	-0.53	-0.57	-0.43
Sugar	0.00	-0.39	-0.40	-0.65	-1.23	-1.83	-2.57	-3.16	-3.70	-4.18
Coconut	0.00	1.76	3.37	4.99	6.25	6.92	6.74	6.08	4.94	3.48
Other crops	0.00	0.42	0.47	0.47	0.21	0.15	-0.07	-0.22	-0.34	-0.31
Livestock and Poultry	0.00	1.15	2.54	3.09	2.82	2.37	1.83	1.38	0.90	0.48
Fishery	0.00	0.71	1.23	1.64	1.77	1.84	1.71	1.51	1.26	1.03
Value-added in Industry	0.00	-1.41	-2.51	-2.65	-2.41	-1.72	-1.06	-0.42	0.19	0.78
Manufacturing	0.00	-0.79	-1.96	-2.27	-2.27	-1.84	-1.40	-0.96	-0.52	-0.07
Food	0.00	-0.54	-1.54	-2.01	-2.33	-2.29	-2.17	-1.98	-1.77	-1.48
Semiconductors	0.00	2.72	1.56	1.22	1.22	1.58	1.78	1.97	2.07	2.22
Garments	0.00	0.22	-0.16	-0.09	0.22	0.78	1.24	1.60	1.89	2.17
Other manufacturing	0.00	-2.06	-3.57	-3.80	-3.55	-2.75	-1.98	-1.25	-0.52	0.14
Construction	0.00	-7.58	-9.69	-9.45	-8.27	-6.29	-4.67	-3.24	-1.89	-0.64
Mining and Quarrying	0.00	-1.36	-3.43	-4.88	-5.37	-4.89	-3.79	-2.25	-0.49	1.36
Electricity, gas, & water	0.00	5.52	9.71	12.96	15.43	17.39	18.60	19.55	20.15	20.81
Value-added in Services	0.00	-0.13	-0.54	-0.75	-0.85	-0.80	-0.70	-0.57	-0.43	-0.29

TABLE 5.5 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	0.00	1.77	3.40	3.22	1.97	0.36	-1.18	-2.41	-3.50	-4.38
Price of Fertilizer	0.00	16.07	20.14	20.77	20.38	19.70	19.01	18.38	17.81	17.31
D. Prices, Employment										
Consumer Price Index	0.00	5.33	6.72	7.18	6.93	6.54	6.11	5.77	5.38	5.18
Wages of Unskilled Workers	0.00	2.74	4.50	5.52	5.86	5.99	5.83	5.68	5.42	5.28
E. External Accounts										
Balance of Payments	0.00	22.52	14.07	25.06	27.25	42.08	41.50	41.45	61.16	61.55
Current Account	0.00	13.23	16.25	21.23	24.72	27.02	31.73	39.08	34.89	38.86
F. Monetary Accounts										
Total Liquidity	0.00	2.24	3.46	2.16	0.57	-1.05	-2.27	-3.14	-4.03	-4.68
Money Supply	0.00	4.38	5.50	5.91	5.83	5.60	5.45	5.35	5.16	5.17
90 day T-Bill rate	0.00	0.77	-0.18	-0.27	-0.55	-0.80	-1.01	-1.14	-0.11	-0.16
Money Multiplier	0.00	1.28	1.93	1.80	1.34	0.96	0.63	0.42	0.28	0.31
Savings Deposit	0.00	4.01	5.03	5.40	5.36	5.18	5.09	5.03	4.88	4.93
Time Deposits	0.00	4.73	5.86	6.27	6.15	5.86	5.67	5.54	5.36	5.32
Deposit Substitutes	0.00	4.97	7.26	8.13	8.10	7.66	7.19	6.78	6.38	6.13
G. Fiscal Accounts										
Budget Deficit	0.00	-34.19	-37.23	-41.48	-52.42	-53.95	-76.36	-106.71	-806.91	661.84
Revenue Effort	0.00	0.81	0.49	0.31	0.51	0.93	1.06	1.28	1.37	1.52
Tax Effort	0.00	1.30	0.87	0.61	0.77	1.15	1.26	1.48	1.55	1.70

and fishery will post growth rates higher than the baseline throughout the projection period. The exchange rate depreciation has the effect of raising prices of these commodities, which in turn stimulate more production. This shows that exchange rate policy will have differential effects on the various sub-sectors of agriculture.

As a whole, the 20 percent depreciation in 1992 will cause a slight slowdown of the economy relative to the baseline in the first seven years and an acceleration thereafter.

5.3.5 Combined Effects: Simultaneous Financial Liberalization

The effects of simultaneously adopting all measures discussed above will now be examined. That is, efforts will be exerted to raise tax revenues, reserve requirement will be gradually decreased, bank entry and branching will be liberalized, and a sharp depreciation will be effected in 1992. The results are shown in Table 5.6.

Inflation rate will accelerate much faster as a result of the significant rise in total liquidity (domestic component of inflation) and the exchange rate (imported component). This happens even if a substantial reduction in the budget deficit occurs. The external accounts will improve in the first two years, but will deteriorate more rapidly in the subsequent years. Interestingly, only the agriculture sector stands to benefit substantially from such policy package. Even the negative impact on the agriculture sector of the reduction in the budget deficit noted earlier will be outweighed by the positive effects of other measures. Moreover, all sub-sectors of the agriculture sector will grow much faster than the baseline. The livestock and poultry sub-sector will be the leading growth sector. Availability of credit and higher output prices largely explain the extraordinary performance of the agriculture sector.

Under this policy package, GNP will increase at a slower pace than the baseline. In addition, the differential growth rate between this scenario and the baseline significantly widens over time. The substantial growth in liquidity arising from the reduction in reserve requirement contributes significantly to the poor performance of the economy. This serves to underscore the need to place greater emphasis on stabilization the economy in any plans for financial liberalization.

5.4 Trade Liberalization

Two policy options will be considered here. The first assumes that the tariff reforms under EO 470 will proceed as scheduled. The second assumes that in addition to EO 470, importation of rice and corn will be liberalized.

TABLE 5.6 Combined Effects—Simultaneous Financial Liberalization and Reduction in Budget Deficit Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.03	-0.14	-0.30	-0.56	-0.96	-1.55	-2.38	-3.41	-4.59
Government Consumption	0.00	-3.03	-6.40	-10.04	-13.93	-18.11	-22.30	-26.29	-29.78	-32.81
Gross Domestic Capital Formation	0.00	-0.27	-0.72	-1.70	-3.45	-5.95	-9.15	-12.87	-16.75	-20.21
Exports	0.00	1.42	-1.22	-3.25	-5.69	-8.23	-10.85	-13.22	-15.38	-16.96
Imports	0.00	-0.95	-2.01	-2.93	-3.85	-4.82	-5.91	-7.06	-8.18	-9.32
Gross National Product	0.01	-0.52	-1.58	-2.85	-4.59	-6.86	-9.39	-12.05	-14.67	-17.03
Gross Domestic Product	0.00	-0.40	-1.47	-2.79	-4.56	-6.73	-9.30	-12.01	-14.61	-17.01
B. Production										
Production of Palay	0.00	3.62	6.51	9.14	12.27	16.58	22.27	29.49	38.03	47.09
Demand for Rice	0.00	0.57	3.70	7.40	11.66	16.87	21.43	28.84	34.08	39.34
Farmgate Price of Palay	0.00	6.76	5.37	4.55	4.60	5.37	6.71	8.35	9.96	10.61
Value-added in Agriculture	-0.01	2.04	4.93	8.60	13.42	20.06	28.00	36.85	45.78	54.66
Crops	-0.01	1.95	3.67	5.65	8.26	11.91	16.30	21.46	26.85	32.20
Palay	-0.01	4.51	7.74	10.91	14.77	20.18	27.04	35.52	45.13	55.24
Corn	-0.01	0.91	1.47	1.99	2.61	3.50	4.35	5.05	5.22	4.80
Sugar	-0.01	1.18	4.10	7.98	12.76	18.55	24.65	30.87	36.37	41.67
Coconut	0.00	2.47	6.55	13.26	23.34	39.69	60.49	87.07	118.62	153.08
Other crops	-0.01	0.57	1.04	1.54	2.13	2.97	3.65	3.99	3.76	2.89
Livestock and Poultry	0.00	3.10	9.68	18.27	29.31	43.91	60.87	78.81	96.22	113.35
Fishery	-0.01	1.12	2.89	5.48	8.89	13.90	19.87	26.43	33.18	40.01
Value-added in Industry	-0.01	-2.57	-6.91	-12.06	-18.75	-26.93	-36.38	-46.17	-54.52	-61.44
Manufacturing	-0.01	-1.63	-5.24	-9.38	-14.65	-20.93	-27.90	-34.97	-40.88	-45.62
Food	-0.01	-0.87	-2.92	-5.21	-8.07	-11.59	-15.26	-19.21	-23.03	-26.63
Semiconductors	-0.01	1.79	-1.69	-5.31	-9.30	-13.76	-18.49	-22.89	-26.23	-28.83
Garments	-0.01	-0.69	-3.45	-7.05	-11.70	-17.84	-25.02	-31.47	-36.51	-40.49
Other manufacturing	-0.01	-3.40	-8.75	-14.92	-22.95	-31.93	-42.50	-53.27	-61.48	-67.17
Construction	-0.02	-11.13	-22.02	-34.42	-50.26	-69.07	-92.54	-116.84	-137.51	-154.59
Mining and Quarrying	-0.01	-2.92	-10.31	-21.96	-38.36	-61.48	-91.84	-128.14	-165.80	-202.60
Electricity, gas, & water	-0.01	6.40	13.48	22.02	33.20	47.64	64.46	82.90	101.05	119.61
Value-added in Services	0.00	-0.30	-1.33	-2.71	-4.58	-6.98	-9.96	-13.32	-16.85	-20.34

TABLE 5.6 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	-0.01	7.50	19.83	33.92	49.65	67.31	84.89	101.79	115.31	128.32
Price of Fertilizer	0.00	16.07	20.14	20.77	20.38	19.70	19.01	18.38	17.81	17.31
D. Prices, Employment										
Consumer Price Index	0.00	6.67	11.39	16.54	21.87	27.82	33.02	37.23	39.84	42.24
Wages of Unskilled Workers	0.00	3.42	7.26	11.79	16.86	23.09	28.95	34.51	38.56	42.32
E. External Accounts										
Balance of Payments	0.03	17.66	3.91	-3.46	-20.57	-57.61	-83.70	-103.82	-178.45	-193.62
Current Account	0.02	10.38	4.52	-2.94	-18.65	-36.99	-63.99	-97.88	-101.80	-122.03
F. Monetary Accounts										
Total Liquidity	0.01	9.50	22.06	34.95	50.01	67.61	84.57	100.95	112.23	125.79
Money Supply	0.00	5.51	8.79	12.19	15.14	17.84	19.27	19.46	18.09	16.92
90 day T-Bill rate	0.00	-1.84	-3.11	-5.41	-7.60	-9.55	-9.35	-8.04	-2.70	-1.66
Money Multiplier	0.00	9.66	23.17	39.79	59.37	82.55	104.68	125.55	142.21	155.11
Savings Deposit	0.00	6.39	9.59	12.88	15.74	13.38	19.59	19.68	18.28	17.13
Time Deposits	0.00	5.73	9.17	12.66	15.64	18.36	19.82	20.01	18.68	17.41
Deposit Substitutes	0.00	6.02	10.73	14.93	18.40	21.31	23.02	23.35	22.16	20.53
G. Fiscal Accounts										
Budget Deficit	0.00	-60.16	-57.80	-62.51	-78.01	-78.70	-112.25	-154.64	-1187.00	955.87
Revenue Effort	0.00	3.93	0.67	-2.43	-4.93	-7.10	-8.22	-2.36	-7.32	-6.32
Tax Effort	0.00	3.93	0.67	-2.43	-4.93	-7.10	-8.22	-8.36	-7.32	-6.32

5.4.1 Effects of EO 470

It is virtually impossible to reflect all the tariff lines in the model. As mentioned above, the model considers only seven merchandise imports as endogenous. Imports of rice and corn are exogenously determined. Thus, only the average tariff rates of the seven merchandise imports could be reflected in the model. Given the government's concern for stabilization, the currently high reserve requirement ratio will be maintained. This scenario actually reflects most of the current policy program of the government being in place.

The results of this policy package are shown in Table 5.7. The budget deficit will increase relative to the baseline as the government will forego some revenues from the tariff reduction program. As a result, the Treasury bill rate will more or less be the same as the baseline. Since growth in total liquidity will be moderated and prices of imports will decline due to the reduction in tariff rates, inflation rate will fall below that of the baseline. However, the current account will deteriorate as imports tend to rise faster than exports.

All the expenditure items on GDP will slightly be higher than the baseline, and GNP will increase by a small margin over the baseline. In general, therefore, the economy will reap some benefits from the implementation of EO 470 as scheduled. However, it would have varying effects on the different sectors of the economy. The industrial and services sectors stand to gain from such policy. Within the industrial sector, only the electricity, gas and water sub-sector will be adversely affected by it all throughout the projection period. The negative impact of it on garments will only be felt starting in 1998. In contrast, the agriculture sector as a whole stands to lose a little from such policy action. It is to be noted, however, that the direction and magnitude of the effects seem to vary across sub-sectors in the agriculture sector. Palay production will be most severely affected. The reason is that with the decline in the domestic price index of merchandise imports, the price of palay will decline. This is a disincentive to palay production. On the other hand, the sugar sub-sector will post higher growth rate than the baseline starting 1992, while corn and other crops sub-sectors start feeling marginal positive effects in 1995 as a result of the decrease in the import price of fuel brought about by the decline in average tariff rate for fuel products.

5.4.2 Import Liberalization of Rice and Corn

The issue here is what would happen to the agriculture sector and to the economy as a whole if importation of rice and corn is liberalized in addition to EO 470. This is reflected in the model by assuming a 50 percent increase in the imports of rice and corn in 1992 and 10 percent increase thereafter.

The results are shown in Table 5.8 which are almost similar to those obtained in Table 5.7. There are some glaring differences, however, with respect to its impact on the agriculture sector. The rice (palay) and coconut sub-sectors will be severely affected. In contrast, the livestock and poultry, fishery, corn, sugar and other crops sub-sectors will be positively affected by it. In the case of GVA for corn, the decline in the import price index for fuel products

TABLE 5.7 Trade Liberalization, Assumptions on Tariff as in EO 470, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	0.01	0.02	0.03	0.05	0.08	0.12	0.16	0.20	0.25
Government Consumption	0.00	0.21	0.43	0.67	0.99	1.67	2.24	2.67	3.01	3.26
Gross Domestic Capital Formation	0.00	0.09	0.16	0.23	0.31	0.52	0.61	0.62	0.67	0.71
Exports	0.00	0.13	0.20	0.26	0.37	0.65	0.73	0.74	0.77	0.80
Imports	0.00	0.16	0.29	0.40	0.56	0.93	1.11	1.19	1.25	1.30
Gross National Product	0.00	0.06	0.10	0.14	0.21	0.39	0.46	0.53	0.57	0.63
Gross Domestic Product	0.00	0.06	0.10	0.14	0.21	0.39	0.46	0.49	0.55	0.61
B. Production										
Production of Palay	0.00	-0.13	-0.35	-0.46	-0.58	-0.99	-1.09	-0.96	-0.69	-0.35
Demand for Rice	0.00	0.96	0.06	0.06	0.07	0.12	0.05	0.15	0.21	0.29
Faragate Price of Palay	0.00	-0.41	-0.40	-0.35	-0.39	-0.79	-0.54	-0.33	-0.17	-0.06
Value-added in Agriculture	0.00	-0.05	-0.10	-0.15	-0.21	-0.37	-0.45	-0.47	-0.40	-0.30
Crops	0.00	-0.08	-0.14	-0.17	-0.22	-0.39	-0.42	-0.39	-0.24	-0.08
Palay	0.00	-0.23	-0.42	-0.55	-0.71	-1.23	-1.36	-1.28	-0.99	-0.65
Corn	0.00	-0.02	-0.02	0.00	0.02	0.03	0.07	0.11	0.18	0.25
Sugar	0.00	0.11	0.16	0.23	0.34	0.66	0.80	0.89	1.08	1.26
Coconut	0.00	-0.08	-0.19	-0.32	-0.53	-0.95	-1.33	-1.63	-1.85	-1.99
Other crops	0.00	-0.01	-0.01	0.00	0.01	0.01	0.07	0.12	0.26	0.40
Livestock and Poultry	0.00	-0.01	-0.06	-0.13	-0.22	-0.40	-0.57	-0.65	-0.66	-0.64
Fishery	0.00	-0.03	-0.06	-0.11	-0.17	-0.30	-0.40	-0.49	-0.50	-0.50
Value-added in Industry	0.00	0.17	0.26	0.36	0.52	0.95	1.07	1.05	1.06	1.05
Manufacturing	0.00	0.13	0.22	0.31	0.46	0.81	0.95	0.97	1.01	1.03
Food	0.00	0.06	0.14	0.22	0.33	0.56	0.74	0.83	0.95	1.03
Semiconductors	0.00	0.06	0.11	0.17	0.23	0.36	0.45	0.43	0.46	0.47
Garments	0.00	0.00	0.00	0.01	0.01	0.03	0.04	-0.04	-0.08	-0.11
Other manufacturing	0.00	0.25	0.36	0.50	0.73	1.30	1.45	1.43	1.42	1.38
Construction	0.00	0.60	0.87	1.15	1.64	2.93	3.26	3.22	3.22	3.15
Mining and Quarrying	0.00	0.12	0.24	0.41	0.64	1.15	1.59	1.85	2.00	2.04
Electricity, gas, & water	0.00	-0.40	-0.82	-1.27	-1.97	-3.59	-4.85	-5.81	-6.53	-7.18
Value-added in Services	0.00	0.05	0.10	0.15	0.23	0.40	0.53	0.61	0.69	0.77

TABLE 5.7 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	0.00	0.06	0.04	0.03	0.02	-0.02	0.01	0.14	0.30	0.47
Price of Fertilizer	-	-	-	-	-	-	-	-	-	-
D. Prices, Employment										
Consumer Price Index	0.00	-0.39	-0.57	-0.75	-1.05	-1.92	-2.13	-2.14	-2.22	-2.28
Wages of Unskilled Workers	0.00	-0.20	-0.37	-0.54	-0.80	-1.47	-1.84	-2.00	-2.13	-2.26
E. External Accounts										
Balance of Payments	0.00	-0.17	-0.54	-1.30	-1.84	-3.41	-4.64	-5.30	-8.59	-8.97
Current Account	0.00	-0.10	-0.63	-1.10	-1.67	-2.19	-3.55	-5.00	-4.90	-5.65
F. Monetary Accounts										
Total Liquidity	0.00	0.07	0.01	0.01	0.02	-0.05	0.02	0.23	0.42	0.61
Money Supply	0.00	-0.28	-0.42	-0.55	-0.77	-1.44	-1.58	-1.53	-1.56	-1.57
90 day T-Bill rate	0.00	-0.10	-0.01	0.00	0.06	0.46	0.72	0.42	0.10	-0.05
Money Multiplier	0.00	-0.07	-0.14	-0.17	-0.24	-0.50	-0.50	-0.41	-0.31	-0.24
Savings Deposit	0.00	-0.26	-0.33	-0.50	-0.71	-1.33	-1.47	-1.44	-1.47	-1.49
Time Deposits	0.00	-0.31	-0.45	-0.58	-0.81	-1.49	-1.62	-1.57	-1.62	-1.63
Deposit Substitutes	0.00	-0.32	-0.53	-0.70	-0.93	-1.51	-1.80	-1.83	-1.84	-1.83
G. Fiscal Accounts										
Budget Deficit	0.00	2.59	3.36	4.49	7.80	14.75	22.17	31.37	241.93	-199.29
Revenue Effort	0.00	-0.12	-0.13	-0.13	-0.19	-0.39	-0.35	-0.46	-0.43	-0.46
Tax Effort	0.00	-0.15	-0.17	-0.17	-0.24	-0.47	-0.42	-0.52	-0.48	-0.51

brought about by the liberalization and the deceleration in the inflation rate produce positive effects. It is to be noted that both variables enter as arguments in the equation for GVA for corn. For livestock and poultry, the decline in the price of feeds brought about by increase in production of corn and additional import of corn and the deceleration in the inflation rate stimulate more production. Note that both variables are explanatory variables in the supply of livestock and poultry equation.

From the point of view of the entire economy, trade liberalization a la EO 470 and that which includes import liberalization of rice and corn yield slightly better results than the baseline. Between the two options, the first seems to give better results. However, both have a slight negative effect on the agriculture sector as a whole. There is one difference that must be noted. That is, in the second option, some trade-offs are possible within the agriculture sector. As found above, palay and coconut sub-sectors will be negatively affected, while the rest of the agriculture sub-sectors will be positively affected by such policy package.

5.5 Financial and Trade Liberalization

The previous sections analyzed the separate effects of financial and trade liberalization on the economy, in general, and on the agriculture sector, in particular. This section examines the combined effects of those policy actions.

5.5.1 Simultaneous Implementation of Financial and Trade Liberalization

The assumption here is that all the financial and trade policy measures discussed above will be implemented at the same time. With respect to trade liberalization, however, two options will be considered. The first pertains to that which includes only the tariff reforms embodied in EO 470, and the second includes both EO 470 and import liberalization of rice and corn. The results are presented in Table 5.9 and Table 5.10, respectively.

Both options give almost similar results. The negative impact of trade liberalization on the budget deficit of the national government will be more than offset by the revenue measures adopted to reduce the deficit. Thus, the budget deficit improves over time. However, the scheduled reduction in reserve requirement increases the money multiplier, which in turn raises total liquidity by substantial amounts. This, together with the sharp depreciation of the exchange rate, results in an acceleration of inflation. All the expenditure items on GDP will be adversely affected. Thus, the economy as a whole will shrink relative to the baseline.

The policy package is observed to have differential impacts on the various sectors of the economy. The industrial and services sectors will be negatively affected while the agriculture sector will stand to benefit from it. Interestingly, the negative effects of trade liberalization on the agriculture sector will be more than offset by the positive effects of financial liberalization. All the sub-sectors in the agriculture sector stand to gain from the policy

**TABLE 5.8 Liberalize Imports: EO 470 Including Rice and Corn,
Percent Deviation from Baseline**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	-	-	-	-	-	-	-	-	-	-
Government Consumption	0.00	0.08	0.16	0.23	0.27	0.29	0.31	0.32	0.35	0.37
Gross Domestic Capital Formation	0.00	0.05	0.11	0.20	0.26	0.31	0.35	0.38	0.39	0.38
Exports	0.00	0.27	0.25	0.24	0.22	0.20	0.19	0.18	0.20	0.21
Imports	-	-	-	-	-	-	-	-	-	-
Gross National Product	0.00	0.01	-0.01	0.01	0.05	0.09	0.13	0.15	0.19	0.17
Gross Domestic Product	0.00	0.02	0.01	0.03	0.05	0.09	0.12	0.15	0.15	0.16
B. Production										
Production of Palay	0.00	-3.47	-5.73	-6.66	-6.57	-5.93	-5.12	-4.56	-4.48	-4.85
Demand for Rice	0.00	0.76	0.61	0.41	0.25	0.16	0.05	0.13	0.16	0.19
Farmgate Price of Palay	0.00	-6.68	-5.17	-3.40	-1.97	-1.10	-0.75	-0.78	-1.01	-1.25
Value-added in Agriculture	0.00	-0.30	-0.51	-0.55	-0.49	-0.37	-0.25	-0.20	-0.24	-0.31
Crops	0.00	-0.73	-1.20	-1.33	-1.25	-1.03	-0.80	-0.67	-0.70	-0.82
Palay	0.00	-3.43	-5.67	-6.61	-6.55	-5.92	-5.13	-4.57	-4.50	-4.84
Corn	0.00	-0.05	0.07	0.32	0.55	0.70	0.73	0.70	0.61	0.55
Sugar	0.00	0.41	0.47	0.50	0.46	0.44	0.41	0.41	0.40	0.45
Coconut	0.00	-0.17	-0.54	-0.89	-1.18	-1.32	-1.32	-1.28	-1.30	-1.37
Other crops	0.00	0.57	0.98	1.23	1.36	1.43	1.43	1.40	1.34	1.32
Livestock and Poultry	0.00	0.34	0.46	0.54	0.58	0.59	0.55	0.50	0.43	0.40
Fishery	0.00	0.11	0.21	0.28	0.28	0.27	0.23	0.19	0.15	0.15
Value-added in Industry	0.00	0.22	0.29	0.34	0.33	0.32	0.32	0.33	0.33	0.38
Manufacturing	0.00	0.24	0.34	0.39	0.39	0.38	0.36	0.36	0.35	0.40
Food	0.00	0.16	0.24	0.26	0.24	0.23	0.22	0.23	0.23	0.29
Semiconductors	0.00	0.07	0.10	0.12	0.10	0.09	0.09	0.10	0.10	0.15
Garments	0.00	0.12	0.20	0.25	0.22	0.19	0.16	0.14	0.12	0.15
Other manufacturing	0.00	0.38	0.52	0.62	0.64	0.62	0.60	0.59	0.57	0.60
Construction	0.00	0.27	0.25	0.31	0.30	0.33	0.38	0.44	0.48	0.57
Mining and Quarrying	0.00	0.09	0.17	0.24	0.27	0.28	0.29	0.32	0.35	0.45
Electricity, gas, & water	0.00	-0.07	-0.17	-0.27	-0.38	-0.46	-0.52	-0.58	-0.67	-0.72
Value-added in Services	0.00	0.09	0.13	0.16	0.18	0.19	0.20	0.22	0.23	0.26

TABLE 5.8 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	0.00	0.18	0.20	0.22	0.21	0.21	0.19	0.17	0.14	0.11
Price of Fertilizer	0.00	-56.24	-70.53	-72.76	-71.34	-68.97	-66.53	-64.29	-62.32	-60.60
D. Prices, Employment										
Consumer Price Index	0.00	-0.79	-0.75	-0.72	-0.65	-0.60	-0.57	-0.56	-0.60	-0.62
Wages of Unskilled Workers	0.00	-0.41	-0.54	-0.59	-0.58	-0.57	-0.55	-0.56	-0.59	-0.62
E. External Accounts										
Balance of Payments	0.00	3.21	1.60	2.04	1.81	2.15	1.74	1.58	2.51	2.85
Current Account	0.00	1.89	1.85	1.73	1.64	1.38	1.33	1.49	1.43	1.80
F. Monetary Accounts										
Total Liquidity	0.00	0.21	0.13	0.15	0.16	0.16	0.15	0.13	0.11	0.08
Money Supply	0.00	-0.67	-0.69	-0.64	-0.55	-0.47	-0.40	-0.38	-0.38	-0.43
90 day T-Bill rate	0.00	-0.21	0.10	-0.01	-0.06	-0.08	-0.15	-0.16	-0.10	0.14
Money Multiplier	0.00	-0.22	-0.26	-0.17	-0.08	0.00	0.04	0.06	0.06	0.01
Savings Deposit	0.00	-0.61	-0.63	-0.59	-0.50	-0.43	-0.37	-0.35	-0.36	-0.41
Time Deposits	0.00	-0.73	-0.73	-0.69	-0.58	-0.50	-0.43	-0.40	-0.40	-0.45
Deposit Substitutes	0.00	-0.77	-0.96	-0.95	-0.84	-0.71	-0.59	-0.52	-0.48	-0.49
G. Fiscal Accounts										
Budget Deficit	0.00	2.28	2.32	2.28	2.40	2.02	2.37	2.89	20.56	-17.65
Revenue Effort	0.00	0.37	0.34	0.33	0.28	0.24	0.22	0.21	0.22	0.26
Tax Effort	0.00	0.35	0.33	0.33	0.28	0.25	0.23	0.22	0.23	0.27

**TABLE 5.9 Simultaneous Financial and Trade Liberalization,
Percent Deviation from Baseline**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.03	-0.13	-0.28	-0.53	-0.90	-1.47	-2.27	-3.28	-4.44
Government Consumption	0.00	-2.80	-5.93	-9.34	-12.95	-16.56	-20.37	-24.15	-27.54	-30.55
Gross Domestic Capital Formation	0.00	-0.17	-0.54	-1.45	-3.08	-5.38	-8.51	-12.22	-16.16	-19.70
Exports	0.00	1.57	-0.97	-2.92	-5.24	-7.44	-9.99	-12.33	-14.49	-16.06
Imports	0.00	-0.78	-1.69	-2.47	-3.21	-3.80	-4.69	-5.75	-6.83	-7.95
Gross National Product	0.01	-0.45	-1.47	-2.70	-4.39	-6.41	-8.94	-11.57	-14.20	-16.58
Gross Domestic Product	0.00	-0.33	-1.36	-2.63	-4.31	-6.34	-8.84	-11.53	-14.14	-16.56
B. Production										
Production of Palay	0.00	3.40	6.09	8.57	11.54	15.35	20.86	28.16	36.93	46.28
Demand for Rice	0.00	0.62	3.72	7.39	11.65	16.89	21.33	28.77	34.03	39.33
Farmgate Price of Palay	0.00	6.29	4.90	4.12	4.11	4.40	6.01	7.89	9.67	10.42
Value-added in Agriculture	-0.01	1.96	4.77	8.34	13.06	19.30	26.96	35.56	44.27	52.97
Crops	-0.01	1.85	3.48	5.39	7.92	11.18	15.41	20.46	25.79	31.13
Palay	-0.01	4.23	7.22	10.21	13.85	18.46	25.08	33.55	43.32	53.67
Corn	-0.01	0.87	1.42	1.94	2.59	3.35	4.16	4.81	4.95	4.49
Sugar	-0.01	1.27	4.23	8.17	13.10	19.16	25.38	31.67	37.22	42.63
Coconut	0.00	2.36	6.28	12.75	23.02	37.87	57.75	83.20	113.56	146.87
Other crops	-0.01	0.55	1.00	1.49	2.10	2.75	3.41	3.72	3.47	2.60
Livestock and Poultry	0.00	3.05	9.52	17.94	28.78	42.89	59.27	76.64	93.50	110.10
Fishery	-0.01	1.08	2.80	5.30	8.73	13.34	19.07	25.41	31.95	38.62
Value-added in Industry	-0.01	-2.38	-6.59	-11.60	-18.04	-25.78	-35.04	-44.74	-53.10	-60.08
Manufacturing	-0.01	-1.48	-4.97	-8.99	-14.04	-19.93	-26.69	-33.66	-39.55	-44.31
Food	-0.01	-0.81	-2.78	-4.98	-7.69	-11.04	-14.51	-18.36	-22.15	-25.73
Semiconductors	-0.01	1.85	-1.56	-5.12	-8.99	-13.37	-17.96	-22.33	-25.70	-28.34
Garments	-0.01	-0.67	-3.42	-6.87	-11.53	-17.61	-24.70	-31.09	-36.14	-40.17
Other manufacturing	-0.01	-3.11	-8.28	-14.26	-21.94	-30.21	-40.54	-51.15	-59.36	-65.13
Construction	-0.02	-10.42	-20.94	-32.96	-48.08	-65.41	-88.27	-112.27	-132.92	-150.12
Mining and Quarrying	-0.01	-2.76	-9.95	-21.32	-37.29	-59.59	-89.04	-124.45	-161.44	-197.54
Electricity, gas, & water	-0.01	5.92	12.45	20.33	30.47	42.27	56.97	73.53	90.12	107.28
Value-added in Services	0.00	-0.74	-1.22	-2.53	-4.30	-6.48	-9.30	-12.54	-15.99	-19.41

TABLE 5.9 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	-0.01	7.49	19.71	33.69	49.38	66.90	84.44	101.41	115.06	128.25
Price of Fertilizer	0.00	16.07	20.14	20.77	20.38	19.70	19.01	18.38	17.81	17.31
D. Prices, Employment										
Consumer Price Index	0.00	6.21	10.69	15.59	20.54	25.44	30.49	34.69	37.36	39.79
Wages of Unskilled Workers	0.00	3.19	6.81	11.10	15.85	21.27	26.74	32.11	36.10	39.82
E. External Accounts										
Balance of Payments	0.03	17.55	3.46	-4.51	-22.16	-59.82	-87.31	-107.97	-185.33	-200.50
Current Account	0.02	10.31	4.00	-3.82	-20.10	-38.41	-66.75	-101.79	-105.72	-126.37
F. Monetary Accounts										
Total Liquidity	0.01	9.49	21.89	34.71	49.69	67.25	84.14	100.67	112.12	125.90
Money Supply	0.00	5.18	8.29	11.52	14.22	16.34	17.76	17.97	16.71	15.60
90 day T-Bill rate	0.00	-2.01	-3.18	-5.53	-7.77	-9.99	-9.48	-8.20	-2.83	-1.78
Money Multiplier	0.00	9.59	23.02	39.30	59.16	82.21	104.37	125.50	142.41	155.47
Savings Deposit	0.00	6.09	9.13	12.27	14.90	17.01	18.13	18.29	16.98	15.87
Time Deposits	0.00	5.37	8.62	11.94	14.66	16.76	18.17	18.46	17.25	16.04
Deposit Substitutes	0.00	5.64	10.08	14.07	17.27	19.64	21.14	21.50	20.44	18.93
G. Fiscal Accounts										
Budget Deficit	0.00	-60.16	-57.80	-62.51	-78.01	-78.70	-112.25	-154.64	-1187.00	955.87
Revenue Effort	0.00	4.29	1.18	-1.80	-4.11	-5.82	-6.93	-7.15	-6.19	-5.21
Tax Effort	0.00	4.29	1.18	-1.80	-4.11	-5.82	-6.93	-7.15	-6.19	-5.21

**TABLE 5.10 Simultaneous Financial and Trade Liberalization, Rice and Corn,
Percent Deviation from Baseline**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.04	-0.15	-0.31	-0.57	-0.96	-1.55	-2.37	-3.39	-4.56
Government Consumption	0.00	-2.93	-6.22	-9.81	-13.69	-17.86	-22.07	-26.08	-29.57	-32.61
Gross Domestic Capital Formation	0.00	-0.22	-0.60	-1.49	-3.17	-5.65	-8.84	-12.55	-16.43	-19.91
Exports	0.00	1.72	-0.94	-2.99	-5.47	-8.02	-10.67	-13.04	-15.20	-16.76
Imports	0.00	-0.96	-2.00	-2.89	-3.80	-4.79	-5.86	-7.01	-8.12	-9.27
Gross National Product	0.01	-0.51	-1.59	-2.89	-4.58	-6.75	-9.29	-11.92	-14.54	-16.90
Gross Domestic Product	0.00	-0.39	-1.49	-2.76	-4.50	-6.68	-9.20	-11.89	-14.47	-16.87
B. Production										
Production of Palay	0.00	-0.35	0.01	1.67	5.03	10.20	16.89	24.83	33.52	42.21
Demand for Rice	0.00	1.43	4.36	7.83	11.99	17.00	21.45	28.92	34.18	39.48
Farmgate Price of Palay	0.00	-0.88	-0.44	0.83	2.55	4.33	6.06	7.66	8.99	9.35
Value-added in Agriculture	-0.01	1.67	4.30	7.96	12.88	19.60	27.68	36.60	45.50	54.29
Crops	-0.01	1.08	2.23	4.11	6.83	10.65	15.33	20.65	26.04	31.24
Palay	-0.01	0.56	1.74	3.44	7.44	13.59	21.45	30.63	40.38	50.11
Corn	-0.01	0.81	1.46	2.20	3.15	4.12	5.01	5.66	5.77	5.27
Sugar	-0.01	1.62	4.60	8.56	13.31	18.97	25.06	31.28	36.79	42.16
Coconut	0.00	2.26	5.92	12.23	22.54	38.08	58.90	85.51	117.05	151.44
Other crops	-0.01	1.18	2.05	2.88	3.61	4.39	5.07	5.36	5.06	4.15
Livestock and Poultry	0.00	3.47	10.18	18.87	30.02	44.61	61.51	79.38	96.72	113.81
Fishery	-0.01	1.24	3.13	5.82	9.37	14.20	20.13	26.64	33.35	40.17
Value-added in Industry	-0.01	-2.34	-6.62	-11.68	-18.37	-26.64	-36.09	-45.86	-54.19	-61.08
Manufacturing	-0.01	-1.37	-4.89	-8.94	-14.20	-20.56	-27.55	-34.63	-40.53	-45.24
Food	-0.01	-0.70	-2.68	-4.92	-7.80	-11.41	-15.08	-19.02	-22.83	-26.40
Semiconductors	-0.01	1.86	-1.61	-5.16	-9.17	-13.72	-18.42	-22.81	-26.13	-28.70
Garments	-0.01	-0.55	-3.25	-6.75	-11.38	-17.62	-24.85	-31.30	-36.32	-40.29
Other manufacturing	-0.01	-2.98	-8.19	-14.24	-22.21	-31.27	-41.90	-52.68	-60.90	-66.57
Construction	-0.02	-10.87	-21.85	-34.13	-49.95	-68.85	-92.21	-116.40	-136.98	-154.01
Mining and Quarrying	-0.01	-2.82	-10.13	-21.69	-38.04	-61.19	-91.54	-127.80	-165.48	-202.11
Electricity, gas, & water	-0.01	6.30	13.26	21.72	32.77	47.00	63.78	82.15	100.22	118.70
Value-added in Services	0.00	-0.20	-1.19	-2.53	-4.39	-6.79	-9.77	-13.12	-16.64	-20.11

TABLE 5.10 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	-0.01	7.69	20.01	34.14	49.87	67.45	85.03	101.92	115.43	128.43
Price of Fertilizer	0.00	-48.21	-60.46	-62.38	-61.15	-59.12	-57.02	-55.11	-53.42	-51.95
D. Prices, Employment										
Consumer Price Index	0.00	5.75	10.52	15.75	21.16	27.16	32.43	36.66	39.27	41.62
Wages of Unskilled Workers	0.00	2.95	6.64	11.14	16.22	22.47	28.37	33.94	37.98	41.70
E. External Accounts										
Balance of Payments	0.03	21.26	5.79	-1.23	-18.65	-54.79	-81.47	-101.78	-175.39	-180.03
Current Account	0.02	12.49	6.69	-1.04	-16.91	-35.18	-62.28	-95.96	-100.05	-119.77
F. Monetary Accounts										
Total Liquidity	0.01	9.75	22.18	35.05	50.09	67.75	84.70	101.06	112.31	125.87
Money Supply	0.00	4.74	8.01	11.46	14.53	17.41	18.91	19.14	17.81	16.62
90 day T-Bill rate	0.00	-2.11	-3.05	-5.45	-7.68	-9.64	-9.37	-8.08	-2.73	-1.70
Money Multiplier	0.00	9.43	22.83	39.59	59.32	82.65	104.91	125.86	142.56	155.43
Savings Deposit	0.00	5.68	8.87	12.21	15.19	17.99	19.26	19.39	18.02	16.84
Time Deposits	0.00	4.89	8.34	11.87	15.00	17.90	19.44	19.69	18.39	17.10
Deposit Substitutes	0.00	5.13	9.64	13.84	17.46	20.60	22.46	22.90	21.78	20.17
G. Fiscal Accounts										
Budget Deficit	0.00	-60.16	-57.80	-62.51	-78.01	-78.70	-112.25	-154.64	-1187.00	955.87
Revenue Effort	0.00	4.78	1.45	-1.74	-4.40	-6.73	-7.92	-8.11	-7.09	-6.07
Tax Effort	0.00	4.78	1.45	-1.74	-4.40	-6.73	-7.92	-8.11	-7.09	-6.07

package. The reduction in the prices of fertilizer and fuel products, availability of credit and favorable domestic prices of agricultural commodities all exert positive effects on the agriculture sector.

5.5.2 Sequenced Liberalization

Financial and trade liberalization could be implemented sequentially. The discussion in Chapter 3 suggests that the domestic markets should be liberalized first before the current account of the balance of payments. In this regard, we assume here that the package of financial measures discussed above will be implemented in 1992 and trade liberalization in 1994. The results shown in Table 5.11 and Table 5.12 are basically the same as those in Table 5.9 and Table 5.10. Hence, there is no need to discuss in detail the results here. It is sufficient to point out that it is going to be inflationary, which will make the economy unstable. Again, only the agriculture sector stands to benefit from the policy package.

TABLE 5.11 Sequenced Liberalization: Financial Liberalization First, Followed by Trade Liberalization, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.03	-0.13	-0.28	-0.53	-0.90	-1.47	-2.27	-3.28	-4.44
Government Consumption	0.00	-2.80	-5.93	-9.34	-12.95	-16.56	-20.37	-24.15	-27.54	-30.55
Gross Domestic Capital Formation	0.00	-0.17	-0.54	-1.45	-3.08	-5.38	-8.51	-12.22	-16.16	-19.70
Exports	0.00	1.57	-0.97	-2.92	-5.24	-7.44	-9.99	-12.33	-14.49	-16.06
Imports	0.00	-0.78	-1.69	-2.47	-3.21	-3.80	-4.69	-5.75	-6.83	-7.95
Gross National Product	0.01	-0.45	-1.47	-2.70	-4.39	-6.41	-8.94	-11.57	-14.20	-16.58
Gross Domestic Product	0.00	-0.33	-1.36	-2.63	-4.31	-6.34	-8.84	-11.53	-14.14	-16.56
B. Production (% change)										
Production of Palay	0.00	3.40	6.09	8.57	11.54	15.35	20.86	28.16	36.93	46.28
Demand for Rice	0.00	0.62	3.72	7.39	11.65	16.89	21.33	28.77	34.03	39.33
Farmgate Price of Palay	0.00	6.29	4.90	4.12	4.11	4.40	6.01	7.89	9.67	10.42
Value-added in Agriculture	-0.01	1.96	4.77	8.34	13.06	19.30	26.96	35.56	44.27	52.97
Crops	-0.01	1.85	3.48	5.39	7.92	11.18	15.41	20.46	25.79	31.13
Palay	-0.01	4.23	7.22	10.21	13.85	18.46	25.08	33.55	43.32	53.57
Corn	-0.01	0.87	1.42	1.94	2.59	3.35	4.16	4.81	4.95	4.49
Sugar	-0.01	1.27	4.23	8.17	13.10	19.16	25.38	31.67	37.22	42.63
Coconut	0.00	2.36	6.28	12.75	23.02	37.87	57.75	83.20	113.56	146.87
Other crops	-0.01	0.55	1.00	1.49	2.10	2.75	3.41	3.72	3.47	2.60
Livestock and Poultry	0.00	3.05	9.52	17.94	28.78	42.89	59.27	76.64	93.50	110.10
Fishery	-0.01	1.08	2.80	5.30	8.73	13.34	19.07	25.41	31.95	38.62
Value-added in Industry	-0.01	-2.38	-6.59	-11.60	-18.04	-25.78	-35.04	-44.74	-53.10	-60.08
Manufacturing	-0.01	-1.48	-4.97	-8.99	-14.04	-19.93	-26.69	-33.66	-39.55	-44.31
Food	-0.01	-0.81	-2.78	-4.90	-7.69	-11.04	-14.51	-18.36	-22.15	-25.73
Semiconductors	-0.01	1.85	-1.56	-5.12	-8.99	-13.37	-17.96	-22.33	-25.70	-28.34
Garments	-0.01	-0.67	-3.42	-6.97	-11.53	-17.61	-24.70	-31.09	-36.14	-40.17
Other manufacturing	-0.01	-3.11	-8.28	-14.26	-21.94	-30.21	-40.54	-51.15	-59.36	-65.13
Construction	-0.02	-10.42	-20.94	-32.96	-48.08	-65.41	-88.27	-112.27	-132.92	-150.12
Mining and Quarrying	-0.01	-2.76	-9.95	-21.32	-37.29	-59.59	-89.04	-124.45	-161.44	-197.54
Electricity, gas, & water	-0.01	5.92	12.45	20.33	30.47	42.27	56.97	73.53	90.12	107.28
Value-added in Services	0.00	-0.24	-1.22	-2.53	-4.30	-6.48	-9.30	-12.54	-15.99	-19.41

TABLE 5.11 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	-0.01	7.49	19.71	33.69	49.38	66.90	84.44	101.41	115.06	128.25
Price of Fertilizer	0.00	16.07	26.14	20.77	20.38	19.70	19.01	18.38	17.81	17.31
D. Prices, Employment										
Consumer Price Index	0.00	6.21	10.69	15.59	20.54	25.44	30.49	34.69	37.36	39.79
Wages of Unskilled Workers	0.00	3.19	6.81	11.10	15.85	21.27	26.74	32.11	36.10	39.62
E. External Accounts										
Balance of Payments	0.03	17.55	3.46	-4.51	-22.16	-59.82	-87.31	-107.97	-125.33	-200.50
Current Account	0.02	10.31	4.00	-3.82	-20.10	-38.41	-66.75	-101.79	-105.72	-126.37
F. Monetary Accounts										
Total Liquidity	0.01	9.49	21.89	34.71	49.69	67.25	84.14	100.67	112.12	125.90
Money Supply	0.00	5.18	8.29	11.52	14.22	16.34	17.70	17.97	16.71	15.60
90 day T-Bill rate	0.00	-2.01	-3.18	-5.53	-7.77	-9.99	-9.48	-8.20	-2.83	-1.78
Money Multiplier	0.00	9.59	23.02	39.30	59.16	82.21	104.37	125.50	142.41	155.47
Savings Deposit	0.00	6.09	9.13	12.27	14.90	17.01	18.13	18.29	16.98	15.87
Time Deposits	0.00	5.37	8.62	11.94	14.66	16.76	18.17	18.46	17.25	16.04
Deposit Substitutes	0.00	5.64	10.08	14.07	17.27	19.64	21.14	21.50	20.44	18.33
G. Fiscal Accounts										
Budget Deficit	0.00	-60.16	-57.80	-62.51	-78.01	-78.70	-112.25	-154.64	-1187.00	955.87
Revenue Effort	0.00	4.29	1.18	-1.80	-4.11	-5.82	-6.93	-7.15	-6.19	-5.21
Tax Effort	0.00	4.29	1.18	-1.80	-4.11	-5.82	-6.93	-7.15	-6.19	-5.21

TABLE 5.12 Sequenced Liberalization: Financial Liberalization First, Followed by Trade Liberalization, Including Rice and Corn, Percent Deviation from Baseline

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Expenditures on GDP										
Personal Consumption	0.00	-0.04	-0.15	-0.31	-0.57	-0.96	-1.55	-2.37	-3.39	-4.55
Government Consumption	0.00	-2.93	-6.22	-9.81	-13.69	-17.86	-22.07	-26.08	-29.57	-32.61
Gross Domestic Capital Formation	0.00	-0.22	-0.60	-1.49	-3.17	-5.65	-8.84	-12.55	-16.43	-19.31
Exports	0.00	1.72	-0.94	-2.99	-5.47	-8.02	-10.67	-13.04	-15.20	-16.76
Exports of Goods	0.01	0.43	-1.90	-3.92	-6.63	-9.43	-12.43	-15.12	-17.60	-19.37
Imports	0.00	-0.96	-2.00	-2.89	-3.80	-4.79	-5.86	-7.01	-8.12	-9.27
Imports of Goods	0.00	-1.34	-2.34	-3.22	-4.15	-5.16	-6.27	-7.46	-8.62	-9.60
Gross National Product	0.01	-0.51	-1.59	-2.89	-4.58	-6.75	-9.29	-11.92	-14.54	-16.90
Gross Domestic Product	0.00	-0.39	-1.49	-2.76	-4.50	-6.68	-9.20	-11.89	-14.47	-16.87
B. Production (% change)										
Production of Palay	0.00	-0.35	0.01	1.67	5.03	10.20	16.89	24.83	33.52	42.21
Demand for Rice	0.00	1.43	4.36	7.83	11.90	17.00	21.45	28.92	34.18	39.49
Farmgate Price of Palay	0.00	-0.88	-0.44	0.83	2.55	4.33	6.06	7.66	8.99	9.35
Value-added in Agriculture	-0.01	1.67	4.30	7.96	12.88	19.60	27.68	36.60	45.50	54.29
Crops	-0.01	1.08	2.23	4.11	6.83	10.65	15.33	20.65	26.04	31.24
Palay	-0.01	0.56	1.24	3.44	7.44	13.59	21.45	30.63	40.38	50.11
Corn	-0.01	0.81	1.46	2.28	3.15	4.12	5.01	5.66	5.77	5.27
Sugar	-0.01	1.62	4.60	8.56	13.31	18.97	25.66	31.28	36.79	42.16
Coconut	0.00	2.26	5.92	12.23	22.54	38.08	58.30	85.51	117.05	151.44
Other crops	-0.01	1.18	2.05	2.88	3.61	4.39	5.07	5.36	5.06	4.15
Livestock and Poultry	0.00	3.47	10.18	18.87	30.02	44.61	61.51	79.38	96.72	113.81
Fishery	-0.01	1.24	3.13	5.82	9.37	14.20	20.13	26.64	33.35	40.17
Value-added in Industry	-0.01	-2.34	-6.62	-11.68	-18.37	-26.64	-36.09	-45.86	-54.19	-61.08
Manufacturing	-0.01	-1.37	-4.89	-8.94	-14.20	-20.56	-27.55	-34.63	-40.53	-45.24
Food	-0.01	-0.70	-2.68	-4.92	-7.80	-11.41	-15.08	-19.02	-22.83	-26.40
Semiconductors	-0.01	1.86	-1.61	-5.16	-9.17	-13.72	-18.42	-22.81	-26.13	-28.70
Garments	-0.01	-0.55	-3.25	-6.75	-11.33	-17.62	-24.85	-31.39	-36.32	-40.29
Other manufacturing	-0.01	-2.98	-8.19	-14.24	-22.21	-31.27	-41.90	-52.68	-60.30	-66.57
Construction	-0.02	-10.87	-21.85	-34.13	-49.95	-68.85	-92.21	-116.40	-136.98	-154.01
Mining and Quarrying	-0.01	-2.82	-10.15	-21.69	-38.04	-61.19	-91.54	-127.80	-165.48	-202.11
Electricity, gas, & water	-0.01	6.30	13.26	21.72	32.77	47.00	63.78	82.15	100.22	118.70
Value-added in Services	0.00	-0.20	-1.19	-2.53	-4.39	-6.79	-9.77	-13.12	-16.64	-20.11

TABLE 5.12 (cont'd)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. Other Variables related to Agri.										
Loans to Rural Banks	-0.01	7.69	20.01	34.14	49.87	67.45	85.03	101.92	115.43	128.43
Price of Fertilizer	0.00	-48.21	-60.46	-62.38	-61.15	-59.12	-57.02	-55.11	-53.42	-51.95
D. Prices, Employment										
Consumer Price Index	0.00	5.75	10.52	15.75	21.16	27.16	32.43	36.66	39.27	41.62
Wages of Unskilled Workers	0.00	2.95	6.64	11.14	16.22	22.47	28.37	33.94	37.98	41.70
E. External Accounts										
Balance of Payments	0.03	21.26	5.79	-1.23	-18.65	-54.79	-81.47	-101.78	-175.39	-190.03
Current Account	0.02	12.49	6.69	-1.04	-16.91	-35.18	-62.28	-95.96	-100.05	-119.77
F. Monetary Accounts										
Total Liquidity	0.01	9.75	22.18	35.05	50.09	67.75	84.70	101.06	112.31	125.87
Money Supply	0.00	4.74	8.01	11.46	14.53	17.41	18.91	19.14	17.81	16.62
90 day T-Bill rate	0.00	-2.11	-3.05	-5.45	-7.68	-9.64	-9.37	-8.08	-2.73	-1.70
Money Multiplier	0.00	9.43	22.86	39.59	59.32	82.65	104.91	125.86	142.56	155.43
Savings Deposit	0.00	5.68	8.87	12.21	15.19	17.99	19.26	19.39	18.02	16.84
Time Deposits	0.00	4.89	8.34	11.87	15.00	17.90	19.44	19.69	18.39	17.10
Deposit Substitutes	0.00	5.13	9.64	13.84	17.46	20.60	22.46	22.90	21.78	20.17
G. Fiscal Accounts										
Budget Deficit	0.00	-60.16	-57.80	-62.51	-78.01	-78.70	-112.25	-154.64	-1187.00	955.87
Revenue Effort	0.00	4.78	1.45	-1.74	-4.40	-6.73	-7.92	-8.11	-7.09	-6.07
Tax Effort	0.00	4.78	1.45	-1.74	-4.40	-6.73	-7.92	-8.11	-7.09	-6.07

6. SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

Despite substantial efforts exerted by the Philippines to accelerate the industrialization process, the agriculture sector has remained a large contributor to the economy in terms of output, exports and employment. There are strong indications that it will still remain a major player in economic development in the medium term. Unfortunately, however, the agriculture sector's potential to contribute more to the economy has not been exploited because macroeconomic policies have remained largely bias against the sector. Thus, agricultural activities have not been profitable, and because of this, they have not been able to attract more private investments. Low profitability and high risk of agricultural enterprises have prompted banks to shy away from agricultural lending.

That macroeconomic policies are biased against the agriculture sector does not necessarily mean that the government has neglected it. On the contrary, the government has intervened heavily in the agriculture sector. However, most interventions were not only inappropriate but also had produced undesirable results. One example was the monopolistic marketing arrangements established for certain agricultural commodities that reduced incentives to producers. Another example was the price ceilings imposed on key agricultural products that reduced their profitability. Still, another example was the myriad of special credit programs for various agricultural activities that undermined the development of the financial system. The underdeveloped financial market was not able to respond to the growing demand for credit of the agriculture sector.

Economic liberalization has become an accepted doctrine nowadays by government and private sector. In the Philippines, the process of liberalizing the economy was actually set in motion in the early 1980s with the tariff reform program and the financial sector reform program. Nevertheless, the tariff reform program still maintained the same structure of protection. In 1986, the government dismantled monopolies in agricultural trading and production. With regard to the financial sector reform program, the banking system was restructured to make them competitive. Likewise, ceilings on lending and deposit rates had been removed to encourage banks to mobilize more deposits. Unfortunately, the financial liberalization was implemented at the time when the economy was highly unstable. Lessons derived from the experience of other countries suggest that stability of the economy must be secured first before launching any liberalization measures. Thus, it is not surprising that the financial system in the Philippines failed to fully realize the potential gains from financial liberalization. With the growing budget deficit of the government, the financial system had to compete with the government in mobilizing private financial savings. Intermediation taxes have still been maintained or raised to high levels to finance partly the deficits of the government. Any effort to liberalize the financial system should therefore address the problem of huge government deficits and high intermediation taxes. The new round of tariff reforms embodied in EO 470 could complicate the matter since it would mean less revenues for the government. This leads to the main question being addressed in this study; that is, what will be the impact

of the new rounds of financial and trade liberalization on the economy, in general, and the agriculture sector, in particular?

Financial liberalization in the sense used in this study means reduction in the government's budget deficit, deregulating bank entry and branching to improve further bank competition, reduction of intermediation taxes, and drastic depreciation of the currency to attain a more realistic and competitive exchange rate. On the other hand, trade liberalization means implementation of EO 470 on schedule including import liberalization of rice and corn. Indeed, results of the simulation analysis present policy makers with some hard choices. In particular, the financial liberalization package alone will greatly benefit the agriculture sector as a whole as well as its sub-sectors. However, the rest of the sectors of the economy will stand to lose from the financial liberalization package. In fact, the net effect measured in terms of the growth of GNP will be negative. The reason is that liberalization in the sense of this study will be inflationary. In particular, the deflationary impact of the reduction in the budget deficit will be drowned by the inflationary impact of the reduction in the reserve requirement ratio and the sharp adjustment in the exchange rate. If the past experience were to serve as a guide, then the financial system will certainly be adversely affected by the instability of the economy. On the other hand, trade liberalization alone will negatively affect the agriculture sector as a whole, and positively affect the rest of the sectors of the economy. On a net basis, the entire economy stands to gain from trade liberalization alone.

If both financial and trade liberalization measures were implemented simultaneously, only the agriculture sector will benefit from it. It means that the positive effects of financial liberalization will more than outweigh the negative effects of trade liberalization on the said sector. But again, the rest of the economy will suffer since GNP growth will decline. The sequencing of liberalization being examined in this study, i.e., financial liberalization first before implementing trade liberalization, produced similar results.

The results of the simulation analysis suggest that stability of the economy must not be compromised by any liberalization measures. Given this, the policy package that will yield the best results consists of the following elements: maintain a high reserve requirement ratio on banks' deposit liabilities to control liquidity of the financial system, allow the exchange rate to depreciate moderately in a consistent manner, and implement the tariff reform program embodied in EO 470 including import liberalization of rice and corn. This policy package will push the economy slightly higher than the baseline. Also, the industrial and services sectors will be positively affected while the agriculture sector as a whole will only be mildly negatively affected. Interestingly, within the agriculture sector, the effects of this policy package will differ: negative on palay and coconut sub-sectors and positive on the rest of the agriculture sector. Highly focused government intervention could be designed to reduce the negative effects of such policy package on a few adversely affected sectors. This will have a greater chance of being successfully implemented than instituting an intervention program for a greater number of sectors.

Given the results of this study indicating the potential gains that the agriculture sector will derive from ~~financial~~ liberalization, it should be actively advocating for financial reforms.

ANNEX A: ~~LIST~~ LIST OF ENDOGENOUS VARIABLES

VARIABLE	DESCRIPTION	UNIT
A. REAL SECTOR		
Output		
GNP	GROSS NATIONAL PRODUCT (REAL)	Million P
GNPN	GROSS NATIONAL PRODUCT (NOMINAL)	Million P
GDP	GROSS DOMESTIC PRODUCT (REAL)	Million P
QS	GROSS NATIONAL PRODUCT (REAL)	Million P
Expenditures		
CP	PERSONAL CONSUMPTION EXPENDITURES (REAL)	Million P
CG	GOVERNMENT CONSUMPTION EXPENDITURES (REAL)	Million P
CGN	GOVERNMENT CONSUMPTION EXPENDITURES (NOMINAL)	Million P
CGOVN	GOVERNMENT CONSTRUCTION EXPENDITURES (NOMINAL)	Million P
CONSGO	GOVERNMENT CONSTRUCTION EXPENDITURES (REAL)	Million P
CONSPR	PRIVATE CONSTRUCTION EXPENDITURES (REAL)	Million P
GDCE	GROSS DOMESTIC CAPITAL FORMATION (REAL)	Million P
IDER	INVESTMENT IN DURABLE EQUIPMENT (REAL)	Million P
Imports Sector		
IMOTHR	OTHER IMPORTS (REAL)	Million P
M1FUEL	IMPORTS OF FUEL PRODUCTS (REAL)	Million P
M2MACH	IMPORTS OF ELECTRICAL SUPPLIES, MACHINERY AND TRANSPORT EQUIPMENT (REAL)	Million P
M3BM	IMPORTS OF BASIC METALS (REAL)	Million P
M4C	IMPORTS OF CEREALS (REAL)	Million P
M5CHEM	IMPORTS OF CHEMICALS (REAL)	Million P
M7TEXT	IMPORTS OF TEXTILE YARNS (REAL)	Million P
M	TOTAL IMPORTS OF GOODS AND SERVICES (REAL)	Million P
MGDS	IMPORTS OF GOODS (REAL)	Million P
MSV	IMPORTS OF SERVICES (REAL)	Million P

ANNEX A (continued)

VARIABLE	DESCRIPTION	UNIT
Exports Sector		
XAO	EXPORTS OF OTHER AGRICULTURAL PRODUCTS (REAL)	Million P
XCOCR	EXPORTS OF COCONUT PRODUCTS (REAL)	Million P
XGARMR	EXPORTS OF GARMENTS (REAL)	Million P
XMO	EXPORTS OF OTHER MANUFACTURED GOODS (REAL)	Million P
XO	EXPORTS OF OTHER GOODS (REAL)	Million P
XSEMR	EXPORTS OF SEMICONDUCTORS (REAL)	Million P
XSROTH	SUGAR EXPORTS TO COUNTRIES OTHER THAN THE U.S. (REAL)	Million P
X	TOTAL EXPORTS OF GOODS AND SERVICES (REAL)	Million P
XGDS	EXPORTS OF GOODS (REAL)	Million P
XSV	EXPORTS OF SERVICES (REAL)	Million P
Production		
Crops Sector		
BINVC	BEGINNING INVENTORY OF CORN	Thousand MT
DCOCO	GVA FOR COCONUT (REAL)	Million P
DCORN	GVA FOR CORN (REAL)	Million P
DOTHCR	GVA FOR OTHER CROPS (REAL)	Million P
DRICE	TOTAL DEMAND FOR RICE	Thousand MT
FPCOPR	AVERAGE FARM PRICES OF COPRA (RESECADA)	P/Kg
FPCORN	AVERAGE FARMGATE PRICE OF CORN (WEIGHTED AVERAGE OF WHITE AND YELLOW CORN)	P/Kg
FPPAL	FARMGATE PRICE OF PALAY	P/Kg
INVRIC	ENDING INVENTORY OF RICE	Thousand MT
PFERT	WEIGHTED AVE. PRICE OF FERTILIZER (AVE. OF UREA AND AMMOSUL PRICES)	P/Kg
PRPAL	PRODUCTION OF PALAY	Thousand MT
SCOCO	GVA FOR COCONUT (REAL)	Million P
SCORN	GVA FOR CORN (REAL)	Million P
SPALAY	GVA FOR PALAY (REAL)	Million P
SSUGAR	GVA FOR SUGAR (REAL)	Million P

ANNEX A (continued)

VARIABLE	DESCRIPTION	UNIT
Construction		
DCONS	GROSS VALUE ADDED IN CONSTRUCTION (REAL)	Million P
Electricity, Gas, and Water		
SEGW	GROSS VALUE ADDED IN ELECTRICITY, GAS, AND WATER (REAL)	Million P
Fisheries		
SFISH/ DFISH	GROSS VALUE ADDED IN FISHERY (REAL)	Million P
Livestock and Poultry		
SLIVPO/ DLIVPO	GROSS VALUE ADDED IN LIVESTOCK AND POULTRY (REAL)	Million P
Manufacturing		
DFOOD	GVA FOR FOOD (REAL)	Million P
DGARMR	GVA FOR GARMENTS (REAL)	Million P
DMFGO	GVA FOR OTHER MANUFACTURED PRODUCTS (REAL)	Million P
DSEMR	GVA FOR SEMICONDUCTORS (REAL)	Million P
Mining and Quarrying		
DMQ	GROSS VALUE ADDED IN MINING AND QUARRYING (REAL)	Million P
Services		
DSER	GROSS VALUE ADDED IN SERVICES (REAL)	Million P
VAR	GROSS VALUE ADDED IN AGRICULTURE (REAL)	Million P
VIR	GROSS VALUE ADDED IN INDUSTRY (REAL)	Million P
Prices		
CPI	CONSUMER PRICE INDEX	1972 = 100
INFL	INFLATION RATE	1972 = 100
PCG	IMPLICIT PRICE DEFLATOR FOR GOVERNMENT CONSUMPTION	1972 = 100
PCGOV	IMPLICIT PRICE DEFLATOR FOR GOVERNMENT CONSTRUCTION	1972 = 100

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ANNEX A (continued)

VARIABLE	DESCRIPTION	UNIT
PCOCO	IMPLICIT PRICE DEFLATOR FOR COCONUT PRODUCTS	1972 = 100
PCONS	IMPLICIT PRICE DEFLATOR FOR CONSTRUCTION	1972 = 100
PEGW	IMPLICIT PRICE DEFLATOR FOR ELECTRICITY, GAS, AND WATER	1972 = 100
PFOOD	IMPLICIT PRICE DEFLATOR FOR FOOD	1972 = 100
PGARM	IMPLICIT PRICE DEFLATOR FOR GARMENTS	1972 = 100
PGDCF	IMPLICIT PRICE DEFLATOR FOR GROSS DOMESTIC CAPITAL FORMATION	1972 = 100
PGDP	IMPLICIT PRICE DEFLATOR FOR GDP	1972 = 100
PGNP	IMPLICIT PRICE DEFLATOR FOR GNP	1972 = 100
PINC	IMPLICIT PRICE DEFLATOR FOR CROPS	1972 = 100
PINCO	IMPLICIT PRICE DEFLATOR FOR CORN	1972 = 100
PINDEX	IMPLICIT PRICE DEFLATOR FOR GNP	1972 = 100
PINFI	IMPLICIT PRICE DEFLATOR FOR FISHERY	1972 = 100
PINOC	IMPLICIT PRICE DEFLATOR FOR OTHER CROPS	1972 = 100
PLIVPO	IMPLICIT PRICE DEFLATOR FOR LIVESTOCK AND POULTRY	1972 = 100
PM	IMPLICIT PRICE DEFLATOR FOR IMPORTS OF GOODS AND SERVICES	1972 = 100
PMBM	IMPLICIT PRICE INDEX FOR M3BM	1972 = 100
PMC	IMPLICIT PRICE INDEX FOR M4C	1972 = 100
PMCHEM	IMPLICIT PRICE INDEX FOR M5CHEM	1972 = 100
PMDOL	IMPLICIT DOLLAR PRICE INDEX FOR IMPORTS	1972 = 100
PMFG	IMPLICIT PRICE DEFLATOR FOR MANUFACTURING	1972 = 100
PMFGO	IMPLICIT PRICE DEFLATOR FOR OTHER MANUFACTURING PRODUCTS	1972 = 100
PMFUEL	IMPLICIT PRICE INDEX FOR M1FUEL	1972 = 100
PMGDS	IMPLICIT PRICE DEFLATOR FOR IMPORTS OF GOODS	1972 = 100
PMMACH	IMPLICIT PRICE INDEX FOR M2MACH	1972 = 100
PMOTHR	IMPLICIT PRICE INDEX FOR IMOTHR	1972 = 100
PMQ	IMPLICIT PRICE DEFLATOR FOR MINING AND QUARRYING	1972 = 100
PMSV	IMPLICIT PRICE DEFLATOR FOR SERVICES	1972 = 100

ANNEX A- (continued)

VARIABLE	DESCRIPTION	UNIT
PMTEXT	IMPLICIT PRICE INDEX FOR M7TEXT	1972 = 100
PNFIA	IMPLICIT PRICE DEFLATOR FOR NFIA	1972 = 100
PPAL	IMPLICIT PRICE DEFLATOR FOR PALAY	1972 = 100
PSEM	IMPLICIT PRICE INDEX FOR SEMICONDUCTORS	1972 = 100
PSER	IMPLICIT PRICE DEFLATOR FOR SERVICES	1972 = 100
PSUG	IMPLICIT PRICE DEFLATOR FOR SUGAR	1972 = 100
PXAO	IMPLICIT PRICE INDEX FOR EXPORTS OF OTHER AGRICULTURAL PRODUCTS	1972 = 100
PXCOC	IMPLICIT PRICE INDEX FOR EXPORTS OF COCONUT PRODUCTS	1972 = 100
PXDOL	IMPLICIT DOLLAR PRICE INDEX FOR EXPORTS	1972 = 100
PXGARM	IMPLICIT PRICE INDEX FOR EXPORTS OF GARMENTS	1972 = 100
PXGDS	IMPLICIT PRICE DEFLATOR FOR EXPORTS OF GOODS	1972 = 100
PXMO	IMPLICIT PRICE DEFLATOR FOR EXPORTS OF MANUFACTURED GOODS	1972 = 100
PXO	IMPLICIT PRICE DEFLATOR FOR EXPORTS OF OTHER GOODS	1972 = 100
PXSEM	IMPLICIT PRICE INDEX FOR EXPORTS OF SEMICONDUCTORS	1972 = 100
PXSUG	IMPLICIT PRICE DEFLATOR FOR EXPORTS OF SUGAR	1972 = 100
PXSV	IMPLICIT PRICE DEFLATOR FOR EXPORTS OF SERVICES	1972 = 100
Employment and Wage		
LF	LABOR FORCE	Thousands
FTEM45	TOTAL EMPLOYMENT, FULL-TIME EQUIVALENT	Thousands
FTEMPA	EMPLOYMENT IN AGRICULTURE, FULL-TIME EQUIVALENT	Thousands
FTEMPI	EMPLOYMENT IN INDUSTRY, FULL-TIME EQUIVALENT	Thousands
FTEMP S	EMPLOYMENT IN SERVICES, FULL-TIME EQUIVALENT	Thousands
FTUEMP	UNEMPLOYED, FULL-TIME EQUIVALENT	Thousands
FTUERA	UNEMPLOYMENT RATE, FULL-TIME EQUIVALENT	-
NWAGUS	WAGE RATE INDEX OF UNSKILLED WORKERS	1972 = 100

ANNEX A (continued)

VARIABLE	DESCRIPTION	UNIT
Others		
K66	CAPITAL STOCK (REAL)	Million P
KCAR	CAPITAL CONSUMPTION ALLOWANCE (REAL)	Million P
NFIAN	NET FACTOR INCOME FROM ABROAD (NOMINAL)	Million P
POTGNF	POTENTIAL OUTPUT (REAL)	Million P
RBLOAN	LOANS OF RURAL BANKS TO THE AGRICULTURE SECTOR	Million P
STATD	STATISTICAL DISCREPANCY	Million P
ICOR	INCREMENTAL CAPITAL-OUTPUT RATIO	Percent
B. FISCAL SECTOR		
DEFG	GOVERNMENT DEFICIT (CASH BASIS)	Million P
DIRTAX	DIRECT TAXES	Million P
DRATIO	RATIO OF THE BUDGET DEFICIT TO NOMINAL GNP	Percent
EXPN	TOTAL EXPENDITURES (CASH BASIS)	Million P
NTAXRE	NONTAX REVENUES EXCLUDING GRANTS	Million P
OTHTAX	TAXES ON PROPERTY, GOODS AND SERVICES, AND OTHER TAXES	Million P
REV	TOTAL REVENUES	Million P
REVEFF	RATIO OF REVENUE TO NOMINAL GNP	Percent
TAXREV	TAX REVENUES	Million P
TAXEFF	TAX EFFORT	Percent
TOTTAX	TOTAL TAXES	Million P
TRADET	TAXES ON INTERNATIONAL TRADE	Million P
C. FINANCIAL SECTOR		
CURC	CURRENCY IN CIRCULATION	Million P
CUTD	RATIO OF CURRENCY TO TRADITIONAL DEPOSIT	Million P
DS	DEPOSIT SUBSTITUTES	Million P
DTRAD	TRADITIONAL DEPOSITS	Million P
FINDMB	FINANCING OF THE BUDGET DEFICIT THROUGH DEPOSIT MONEY BANKS	Million P
FINNB	NONBANK FINANCING OF THE BUDGET DEFICIT	Million P

ANNEX A (continued)

VARIABLE	DESCRIPTION	UNIT
FUNDS	LIQUIDITY POSITION OF COMMERCIAL BANKS	Million P
MACPS	MONETARY AUTHORITIES' CREDIT TO THE PUBLIC SECTOR	Million P
MB	MONETARY BASE	Million P
MS	MONEY SUPPLY, END OF YEAR	Million P
MSA	MONEY SUPPLY, AVERAGE FOR THE YEAR	Million P
MULT	MONEY MULTIPLIER	Million P
NCNG	NET CREDIT OF CB TO THE NATIONAL GOVERNMENT	Million P
NDA	NET DOMESTIC ASSETS	Million P
NFA	NET FOREIGN ASSETS	Million P
OTHNDA	OTHER NET DOMESTIC ASSETS	Million P
REGS	RESERVE ELIGIBLE GOVERNMENT SECURITIES	Million P
SD	SAVINGS DEPOSIT	Million P
TBILL	AVERAGE INTEREST RATE ON 91-DAY TREASURY BILLS	Percent
TD	TIME DEPOSITS	Million P
TL	TOTAL LIQUIDITY, END OF YEAR	Million P
TLA	TOTAL LIQUIDITY, AVERAGE FOR THE YEAR	Million P
TRES	TOTAL RESERVES OF DEPOSIT MONEY BANKS	Million P
D. EXTERNAL SECTOR		
BOP	BALANCE OF PAYMENTS	Million \$
CAPBAL	CAPITAL ACCOUNTS BALANCE	Million \$
CURBAL	CURRENT ACCOUNTS BALANCE	Million \$
ERMM	IMPLICIT EXCHANGE RATE FOR MERCHANDISE IMPORTS	Percent
ERXX	IMPLICIT EXCHANGE RATE FOR MERCHANDISE EXPORTS	Percent
INMFMI	INFLOW OF NONMERCHANDISE TRADE, FREIGHT AND MERCHANDISE INSURANCE	Million \$
INMTRD	INFLOW OF NONMERCHANDISE TRADE	Million \$
IRESCB	GROSS INTERNATIONAL RESERVES OF THE CB	Million \$
M\$	MERCHANDISE EXPORTS	Million \$
ONMFMI	OUTFLOW OF NONMERCHANDISE TRADE, FREIGHT AND MERCHANDISE INSURANCE	Million \$
ONMTRD	OUTFLOW OF NONMERCHANDISE TRADE	Million \$
TRABAL	TRADE BALANCE	Million \$
X\$	MERCHANDISE EXPORTS	Million \$

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Annex B: Assumptions - Financial and Trade Liberalisation and the Agriculture Sector, 1991 to 2000

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	growth rate (%)									
A. Internal Variables										
1. Balance of Payments 1/										
ALLSDR Allocation of SDR	0	0	0	0	0	0	0	0	0	0
ILYLOW Inflow of medium/long term loans	4507	4322 -6.2	4786 10.7	4411 -7.8	3736 -15.3	3341 -10.6	3147 -5.8	2964 -5.8	2494 -9.1	2443 -9.1
INCOUT Income remittances to the rest of the world	321	357 11.2	405 13.4	456 12.6	516 13.2	587 13.8	662 12.8	749 13.1	847 13.1	959 13.1
INCREM Income remittances from abroad	1380	1590 15.2	1830 15.1	2150 15.0	2420 15.0	2780 14.9	3197 15.0	3677 15.0	4228 15.0	4862 15.0
INTINC Investment and interest income	396	452 14.1	511 13.1	563 10.2	604 7.3	649 7.5	716 10.3	785 9.6	856 9.0	931 8.3
ITRANS Inflow of transfers	745	770 3.4	757 -1.7	825 9.0	898 8.8	978 8.9	1034 5.7	1097 6.1	1181 7.7	1269 7.5
MIINT Interest payments	2273	2467 8.5	2634 6.8	2848 8.1	2639 1.8	3008 3.8	3182 5.8	3351 5.3	3519 5.0	3670 4.3
MNGOLD Monetisation of gold	240	265 10.4	292 10.2	320 9.6	353 10.3	390 10.5	430 10.3	474 10.2	522 10.1	575 10.2
MINDF Net direct investment	737	632 -14.2	779 23.3	722 -7.3	824 14.1	959 16.4	1010 5.3	1103 9.2	1185 7.4	1310 10.5
MSHTM Net inflows of short-term capital	172	6 -96.5	129 2050.0	166 28.7	213 28.3	263 23.5	333 26.6	421 26.4	526 24.9	664 26.2
OLYLOW Outflows of medium and long term loans	3027	2577 -14.9	2619 1.6	2536 -3.2	1973 -22.2	2013 2.0	1866 -7.3	1758 -5.8	1630 -7.3	1498 -8.1
OTHIM Other non-merchandise trade inflows	3307	3436 3.9	3576 4.1	3789 6.0	3976 4.9	4028 1.3	4191 4.0	4363 4.1	4541 4.1	4728 4.1
OTHOM Other non-merchandise trade outflows	1072	1187 10.7	1255 5.7	1389 10.7	1550 11.6	1744 12.5	1922 10.2	2114 10.0	2347 11.0	2605 11.0
REVADJ Revaluation Adjustment	309	188 -39.2	169 -10.1	31 -81.7	31 0.0	22 -29.0	22 0.0	22 0.0	22 0.0	22 0.0
UNRM Unremitted arrears	0	0	0	0	0	0	0	0	0	0
OTRANS Outflow of transfers	5	5 0.0	8 60.0	8 0.0	8 0.0	8 0.0	8 0.0	8 0.0	8 0.0	8 0.0
2. Others										
ER Exchange rate	27	28.35 5.0	29.77 5.0	31.26 5.0	32.82 5.0	34.46 5.0	36.18 5.0	37.99 5.0	39.89 5.0	41.89 5.0
GNPUS Real US GNP 2/	3508.88	3624.67 3.3	3726.16 2.8	3837.95 3.0	3953.09 3.0	4071.68 3.0	4193.83 3.0	4319.65 3.0	4449.23 3.0	4582.71 3.0
MPIF Dollar import price index for fuel products 2/	719.71	799.6 11.1	839.58 5.0	879.88 4.8	959.95 9.1	1039.62 8.3	1081.2 4.0	1124.45 4.0	1169.43 4.0	1216.21 4.0
MPIF Dollar import price index for non-fuel products 1/	207.122	215.825 4.3	225.706 4.5	234.96 4.1	244.405 4.0	255.55 4.6	267.3 4.6	279.6 4.6	292.46 4.6	305.92 4.6
PID Dollar export price growth rate 1/	220.67	229.91 4.2	239.66 4.2	249.32 4.0	256.98 3.1	266.2 3.6	276.3 3.8	286.5 3.7	296.8 3.6	307.5 3.6
GNPJAP Real GNP of Japan 2/	379624	394809 4.0	413365 4.7	432793 4.7	452269 4.5	472321 4.5	493889 4.5	516114 4.5	539339 4.5	563609 4.5
INDJAP Index of industrial production of Japan 2/	130.114	135.319 4.0	141.679 4.7	148.338 4.7	155.013 4.5	161.989 4.5	169.279 4.5	176.896 4.5	184.856 4.5	193.175 4.5

		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000	
		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)		growth rate (%)	
T1	Average tariff for imports of fuel products	21.8		21.8	0.0	21.8	0.0	21.8	0.0	21.8	0.0	21.8	0.0	21.8	0.0	21.8	0.0	21.8	0.0	21.8	0.0
T2	Average tariff for imports of elect. supplies, machinery, & transport equipment	18.3		18.3	0.0	18.3	0.0	18.3	0.0	18.3	0.0	18.3	0.0	18.3	0.0	18.3	0.0	18.3	0.0	18.3	0.0
T3	Average tariff for basic metals	9.81		9.81	0.0	9.81	0.0	9.81	0.0	9.81	0.0	9.81	0.0	9.81	0.0	9.81	0.0	9.81	0.0	9.81	0.0
T4	Average tariff for cereals	12.08		12.08	0.0	12.08	0.0	12.08	0.0	12.08	0.0	12.08	0.0	12.08	0.0	12.08	0.0	12.08	0.0	12.08	0.0
T5	Average tariff for chemicals	10.9		10.9	0.0	10.9	0.0	10.9	0.0	10.9	0.0	10.9	0.0	10.9	0.0	10.9	0.0	10.9	0.0	10.9	0.0
T7	Average tariff for textiles	20.71		20.71	0.0	20.71	0.0	20.71	0.0	20.71	0.0	20.71	0.0	20.71	0.0	20.71	0.0	20.71	0.0	20.71	0.0
Production/Expenditures																					
LIIV	Change in stocks	0		200		400	100.0	600	50.0	800	33.3	1000	25.0	1200	20.0	1400	16.7	1600	14.3	1800	12.5
PIWDS	International price of feeds (maize) 3/	2.85		2.85	0.0	2.85	0.0	2.85	0.0	2.85	0.0	2.85	0.0	2.85	0.0	2.85	0.0	2.85	0.0	2.85	0.0
PPFTT	World price of fertilizer 4/	3353.94		3437	2.5	3523	2.5	3611	2.5	3702	2.5	3794	2.5	3889	2.5	3986	2.5	4086	2.5	4188	2.5
SFORES	Value-added in forestry	600		600	0.0	600	0.0	600	0.0	600	0.0	600	0.0	600	0.0	600	0.0	600	0.0	600	0.0
PIWFO	Implicit price deflator for forestry	2362.95		2599.24	10.0	2859.16	10.0	3145.08	10.0	3459.59	10.0	3805.55	10.0	4186.1	10.0	4604.71	10.0	5065.19	10.0	5571.71	10.0
WLAGRI	Legislated wages for agriculture	77.01		84.711	10.0	88.947	5.0	93.394	5.0	98.064	5.0	102.967	5.0	108.116	5.0	113.521	5.0	119.197	5.0	125.157	5.0
KPRGN	Expenditures on electricity, gas, water	28820		31702	10.0	34872	10.0	38359	10.0	42195	10.0	46415	10.0	48736	5.0	51173	5.0	53731	5.0	56418	5.0
XSUS	Exports of sugar to the US	215		215	0.0	215	0.0	215	0.0	215	0.0	215	0.0	215	0.0	215	0.0	215	0.0	215	0.0
PALHAS	Palay area harvested	3319		3352.2	1.0	3395.7	1.0	3419.6	1.0	3453.76	1.0	3488.3	1.0	3506	0.5	3523	0.5	3541	0.5	3559	0.5
FERTC	Fertilizer consumption	806.74		855.15	6.0	880.8	3.0	907.23	3.0	934.45	3.0	962.48	3.0	991.35	3.0	1021.09	3.0	1051.73	3.0	1083.28	3.0
COCOTR	Number of nut bearing trees	301654		307687	2.0	310764	1.0	313872	1.0	317010	1.0	320180	1.0	321781	0.5	323389	0.5	325007	0.5	326632	0.5
SEEDS	Seed use of palay	304		315	3.6	318.15	1.0	321.33	1.0	324.54	1.0	327.79	1.0	330	0.7	331	0.3	333	0.6	335	0.6
MRR	Milling recovery rate	0.65		0.65	0.0	0.65	0.0	0.65	0.0	0.65	0.0	0.65	0.0	0.65	0.0	0.65	0.0	0.65	0.0	0.65	0.0
MRIK	Imports of rice	220		220	0.0	220	0.0	220	0.0	220	0.0	220	0.0	220	0.0	220	0.0	220	0.0	220	0.0
PPCORY	Farm price of yellow corn	4.03		4.03	0.0	4.4	9.2	4.84	10.0	5.32	9.9	5.86	10.2	6.29	7.3	6.6	4.9	6.93	5.0	7.28	5.1
PPCORN	Farm price of white corn	4.04		4.04	0.0	4.5	11.4	4.95	10.0	5.45	10.1	5.99	9.9	62.9	950.1	6.6	-89.5	6.93	5.0	7.28	5.1
INVC	Ending inventory of corn	138.2		138.2	0.0	274	98.3	274	0.0	274	0.0	274	0.0	274	0.0	274	0.0	274	0.0	274	0.0
MCORN	Imports of corn	184.67		184.6	0.0	200	8.3	200	0.0	200	0.0	200	0.0	200	0.0	200	0.0	200	0.0	200	0.0
SUGRAS	Sugar area harvested	262		275	5.0	300	9.1	325	8.3	350	7.7	375	7.1	400	6.7	400	0.0	400	0.0	400	0.0

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