THE PHILIPPINE COMMERCIAL BANKING SYSTEM: STRUCTURE, PERFORMANCE AND THE IMPACT OF THE CAPITAL BUILDUP PROGRAM OF 1972

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The article attempts to identify some effects of the Banking Reform of 1972, specifically the increased capitalization requirement on banks, on the structure and performance of the commercial banking industry. It was found that to begin with, the banking industry is a highly concentrated industry and that the size of a commercial bank is closely related to its profit performance. The capital buildup program imposed by the Central Bank in 1972 further increased the level of concentration in the commercial banking industry.

Specific performance indicators were also found to have been significantly affected by the capital buildup program. The banks' profitability increased but so did the leverage and liquidity risk indicators. The Central Bank may have achieved its objective of increasing the capital base of the system and consolidating smaller banks into stronger but fewer institutions. However, the remaining larger banks appear to have increased their market power (to the extent indicated in the higher concentration ratios) and their general financial risk.

1. Objectives of the Study

Recent developments in the financial sector have focused on the crucial role of the commercial banking system in the country's economic survival and growth. These came at a time when the commercial banking industry remains as one of the most regulated in the entire economy. The capability of the banking system to respond to the challenge depends not only on its current response and performance but also on how past government policies have shaped its past growth, performance and structure.

The primary objectives of this paper are as follows:

1. to evaluate the growth, performance and structure of the commercial banking industry over an extended period of

17 years (1966-82). The specific aim of the exercise is to characterize the industry with regard to stability, return and degree of concentration (i.e., relative monopoly power of firms); and

2. to identify some possible effects of the Banking Reform of 1972, specifically the capital buildup legislation of Central Bank, based on a historical analysis of the commercial banks' operating performance. The Banking Reform of 1980 (Unibank Act) could not be empirically evaluated yet since it is a fairly recent phenomenon. Nevertheless, study of the results of the 1972 Reforms should provide a framework along which subsequent review, at least in some aspects, of the 1980 Reforms could proceed.

2. Review of Literature

Several previous researches provide an adequate guide to the study of the Philippine commercial banking system. Lamberte (1982) looked at banks for the period 1977-79 using a simple flow of funds analysis approach. He found that compared to small banks, larger banks were more successful in generating savings, expanded their equity capital faster and experienced higher and more stable profit rates. From thereon, Lamberte studied commercial banks' production functions leading to policy prescriptions which could affect the structure of the system. In contrast, this paper will not be concerned with a micro-analysis of the bank but shall concentrate only on the historical performance and structure of the system. As in Lamberte, bank size will be viewed as a determinant of performance, but will be seen here in interaction with other variables and in a much longer time period.

The work of Lindsey (1980) compared the levels of concentration for manufacturing industries in 1960 and in 1970 and attempted to analyze some possible explanatory variables. He found that the relative size of the industry and the size of establishments were important explanatory factors for changes in concentration. Lindsey also revealed evidence that for the period under study, establishment concentration change was negatively associated with the initial level of concentration — i.e., those initially highly concentrated industries experienced falling concentration ratios. He found this to be related to the "attractiveness of highly concentrated industries (with their high profits), to new producers" (Lindsey, 1980, p. 121). Finally Lindsey showed that increasing price-cost margins are significantly positively related to both concentration and changes in concentration

tion, i.e., high profits are enjoyed in concentrated industries. He emphasized however, that high profits can act as a stimulus to new industry entrants provided that increasing growth in demand is experienced. In the absence of a vigorous demand growth, however, high concentration would likely prevail. The study has some relevance to the analysis of the banking industry since it will be shown that banking has been a growth industry in the last two decades, yet institutional/regulatory barriers may prevent new competitors' entry. It will be shown in the present study that changes in concentration (and in performance) of the banking industry may just be a response to (or result of) the regulatory measures taken by Central Bank in the last decade.

The work of Scherer (1980) contains one of the most up-to-date review of the theory and research results on industrial structure and performance, both in the U.S. and in other countries. This paper uses the measures of concentration and of industry performance suggested by Scherer. At the same time, some adaptations of those measures were done, particularly for performance indicators, to adjust for limitations in banking industry data availability.[1] Scherer is also an authoritative guide for understanding the limitations of concentration and performance measures and the relative lack of unanimity in research results relating to industry structure or performance and in their respective measures.

3. Methodology

The study shall attempt to characterize certain aspects of the banking industry's[2] performance and structure.

3.1. Suggested Measures

Performance variables will be limited to measures of returns or profitability and of stability. The structural aspect shall be addressed in a study of the industry's degree of concentration. The study proposes the following ratio indicators for these variables:

a) *Measure of Returns*

$$\text{Return on Equity } (ROI) = \frac{\text{Net Income}}{\text{Average Net Worth}}$$

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[1] For example, an accounting measure of return was used instead of the economic definition of profits or its surrogate, the price-cost margin. Use of accounting-based ratios is justified in a previous paper (Saldaña, 1983).

[2] In subsequent discussions, the term "banks" or "banking industry" shall refer to the Philippine commercial banking industry.

This measures the incentive to the bank owners to remain and operate in the industry. The ratio is affected by operating efficiency as well as the size of bank capital. This measure was chosen because of the potential effects of Central Bank policy, at least the 1972 Reform, on both efficiency and bank capital.

b) *Measures of Stability*

There are two indicators used in this paper, namely

i) A liquidity ratio:

$$\text{Loans to Deposit } (L/D) = \frac{\text{Total Loans}}{\text{Total Deposits}}$$

This ratio measures the extent to which normal sources of funds (deposits) are used for lending. Generally, the higher the ratio, the higher the profit potential and also the risk that deposit withdrawals could not be met by "normal" portfolio liquidation, i.e., an "aggressive" policy.

ii) A dept-to-capitalization ratio:

Liabilities to Net Worth *(L/NW)*

$$= \frac{\text{Total Liabilities}}{\text{Total Net Worth}}$$

This is a measure of the bank's leverage. The higher the ratio, the smaller is the margin of asset protection the creditors (including depositors) have in the bank, i.e., a "leveraged" policy.

c) *Measure of Industry Concentration*

The study will use the so-called Herfindahl-Hirschman Index, based on banks' total assets, as follows:

$$H_s = \sum_{i=1}^{N} S_i^2$$

where S_i is the fractional share of the ith firm relative to the market and N is the number of firms.

When the industry is occupied by only one firm, the ratio equals the maximum value of 1.0. The value declines with increases in the number of firms and increases with increasing inequality among a given number of firms. Market share can be measured in revenues or assets, indicated in the index H_s or H_A, respectively.

An alternative concentration index is the Four-Firm Concentration Ratio, which is simply the percentage of total banking industry revenues (or assets) contributed by the largest four banks, designated in this study as C_s or C_A, respectively.

The data base used in all of the preceding indicators is the *Study of Commercial Banks in the Philippines* published annually by the SGV & Co. since 1963. This publication includes company-specific financial condition and performance indicators, based entirely on the financial statements submitted to the Central Bank and the Securities and Exchange Commission. The study period will cover the 17-year period of 1966-82, unless indicated otherwise.

II. Research Questions

This paper seeks some preliminary answers to the following questions:

a) *Industry Characteristics: Performance and Structure*
   What is the growth pattern in banks over the last 17 years? Could this growth be "explained" by usual economic factors like GNP and money supply?

b) *Performance and Structure Relationships*
   Is there a relationship between returns, size and the degree of concentration in the industry?

c) *The Impact of the Capital Buildup Program of 1972*
   o What were the effects of the Capital Buildup Program of 1972 on the positioning of firms in the industry?
   o Are there any corresponding effects on overall industry returns, concentration and stability?

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4. Descriptive Results:
Growth, Performance and Structure

4.1. *Growth*

The banking industry has been one of the fastest-growing sectors of the economy and its growth compares favorably with other indicators as shown in Table 1.

Table 1 — Growth Rates: Banking Industry Vs. Other Indicators

		Average Annual Simple Growth Rate: 1966-76	Average Annual Simple Growth Rate 1971-81*
1.	Total Revenues of the Banking Industry	8.61%	140.0%
2.	Total Assets of the Banking Industry	6.40%	9.50%
3.	Average Bank Size	8.82%	11.71%
4.	Money Supply	2.75%	3.50%
5.	Gross Domestic Product	4.17%	6.91%

Source of Data: *Study of Commercial Banks in the Philippines*, SGV & Co.
*The year 1981 was selected as this was the year prior to the enforcement of the Unibank Act.

One could observe that the industry's average growth experience may not be readily explained by general economic growth. Rather, this may be reflective of the government's concern for the accelerated development of the financial sector as reflected in its recent policies. In addition, the average size of a commercial bank has been growing at an even faster rate compared to the banking industry itself, suggesting a concentration of the growing industry assets to a diminishing number of commercial banking institutions. This pattern was even more pronounced in the ten years prior to the Unibank Act.

The pronounced growth in the banking institutions could be seen in a summary distribution of firms in the industry, shown in Table 2.

Table 2 — Banking Industry: Distribution of Firms by Assets
(Includes all domestic and foreign banks)

Bank Asset Size Class (Millions)	1966		1971		1976		1981	
	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent
Over ₱8,000					1	3.23	3	9.09
₱5,001 — 8,000							5	15.15
3,001 — 5,000	1	2.5	1	2.5	1	3.23	13	39.39
2,001 — 3,000					5	16.13	5	15.15
1,001 — 2,000					13	41.94	6	18.18
501 — 1,000			7	17.5	6	19.35		
201 — 500	8	20.0	16	40.0	5	16.13	1	3.03
101 — 200	13	32.5	12	30.0				
Less than ₱100	18	45.0	4	10.0				
Total	40	100.0	40	100.0	31	100.0	33	100.0
Average Bank Size	₱175 Million		₱357 Million		₱1,720 Million		₱4,537 Million	

In 1966, only one commercial bank, the Philippine National Bank (PNB), had assets of over one billion pesos. Ten years after, the majority of commercial banks was in this asset size class. By 1981 the total assets of each bank in the industry, except one (ComBank) exceeded one billion pesos.

4.2 *Performance*

The results of selected indicators for returns, liquidity and solvency are shown in Table 3.

Table 3 — Average Banking Industry Performance Indicators (1966-82)

Year	Return on Ave. Net Worth	Loans to Deposit	Liabilities to Net Worth
	(Per cent)	(Times)	(Times)
1966	10.0	1.16	5.71
1967	10.0	1.18	6.33
1968	11.0	1.31	6.97
1969	10.0	1.13	6.48
1970	12.0	1.23	6.43
1971	12.0	1.23	7.08
1972	12.0	1.32	7.97
1973	14.0	1.32	8.01
1974	14.0	1.51	8.70
1975	15.0	1.70	7.19
1976	13.7	1.37	8.14
1977	13.8	1.20	8.45
1978	14.6	1.12	9.44
1979	14.3	1.21	10.70
1980	13.5	1.07	11.0
1981	11.7	1.31	9.99
1982	17.89	1.10	9.99

The number of banks has declined over the period under study while returns exceeded 12 per cent starting in 1973. The ratio of liabilities to net worth also showed a consistent pattern, increasing steadily over time. The ratio of loans to deposit also shows slight increasing pattern over time.

Structure

The measures of industry concentration were calculated for the period under study and are shown in Table 4.

Table 4 -- Measures of Industry Concentration

Year	Herfindahl-Hirschman Index (Revenue)	Herfindahl-Hirschman Index (Assets)	Four-Firm Concentration Ratio (Revenue)
1966	11.55	11.47	47.38
1967	11.08	13.60	46.71
1968	11.65	12.18	46.82
1969	11.89	13.21	48.51
1970	11.05	12.05	44.98
1971	8.96	9.18	41.01
1972	7.33	8.22	37.90
1973	7.97	8.56	39.44
1974	9.48	11.20	42.76
1975	10.06	13.70	42.23
1976	11.69	11.81	44.78
1977	10.34	9.74	42.52
1978	9.93	8.99	42.17
1979	9.37	9.38	42.03
1980	11.96	9.58	42.48
1981	11.99	9.28	47.39
1982	11.23	10.36	45.62

The Herfindahl-Hirschman Index was relatively higher during the periods 1966-70 and 1974-76, indicating that the asset size difference among banks was relatively pronounced during those periods. Nevertheless, the index did not exceed .15 at any time. It was also shown that the top four firms accounted for slightly more than per cent share of the assets of the industry. Scherer asserted that an oligopolistic structure could be presumed whenever the top four firms account for at least 40 per cent of total industry assets/ Altogether, there appears to be no compelling evidence of an extreme degree of concentration, although following Scherer,

there has always been a tendency for oligopolistic structure based on the four-firm concentration measure.[3]

Finally, it must be noted that PNB has always accounted for more assets than the top four private domestic commercial banks until 1978. Prior to 1971, PNB's assets were about one-third of the total banking industry and by 1981, had gone down somewhat to one-fourth of the industry. The fact that the largest bank is a government-owned bank will have some implications on later interpretations regarding the relationship between industry profitability and concentration.

5. Empirical Results:
Performance and Structure Relationships

A basic question in this paper is whether there is evidence of an empirical relationship between the historical performance and the structure of the banking industry.

The theoretical argument against "too much" concentration in an industry is that oligopolistic control of resources and of the market is associated with "abnormally high" profits, i.e., a departure from the "first-best" competitive solution of the welfare problem. Empirical verification of this association has been difficult to establish largely due to the usual measurement problems since a variety of concentration indexes and of profitability measures exists.

In addition to industry concentration, there is a need to determine the association between other industry performance indicators like leverage (TL/NW) and liquidity (L/D) to industry profitability. Finally, the interest rate differential (IRD), representing the difference between the average interest rate for loans and the average interest rate for borrowings can also be introduced as a potential explanatory variable; the data on these are shown in Table 5.

The regression equation using these variables is as follows:

$$(1) \quad ROI = 3.171 + .007 \ TL/NW + .05 \ L/D - .406 \ H_s + .21 \ IRD$$
$$(t = 4.425^{***}) \quad (t = 2.255^{**}) \ (t = 1.88^*) \ (t = .567)$$

$$F = 9.79^{**} \qquad \text{D.W.} = 1.77 \qquad R^2 = .781$$

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[3]The reader should refer to other studies of concentration in various Philippine industries, as in Lindsey (1980) and Patalinghug (1983). In the latter study, it was not unusual to obtain four-firm ratios of over 40 per cent although indexes were computed only for 1970 and 1978, respectively, and no comprehensive index was available in both studies.

***significant at .01 level
**significant at .05 level
*significant at .10 level
Durbin Watson (D.W.) indicates no autocorrelation at $\alpha = .01$
Chi-Square test indicates that independent variables are uncor-
related at all three levels of significance.

Table 5 — Bank Pricing and Costs:
Average Interest Rate Differential (IRD)

	Weighted Average Loan Interest Rate[1]	Weighted Average Deposit Interest Rate[2]	Average Interest Rate Differential
1966	9.79	4.07	5.72
1967	9.70	4.15	5.55
1968	9.99	4.95	5.04
1969	10.35	4.02	6.33
1970	11.08	4.27	6.81
1971	11.67	4.31	7.36
1972	11.75	4.19	7.56
1973	11.06	4.11	6.95
1974	12.04	4.46	7.58
1975	12.31	4.94	7.37
1976	12.70	5.44	7.26
1977	12.77	6.20	6.57
1978	12.68	6.81	5.87
1979	12.68	8.02	4.66
1980	13.96	9.05	4.91
1981	14.83	9.19	5.64

Source: *Central Bank Statistical Bulletin:* "Loans Outstanding of Commercial
Banks Classified by Interest Rate, with Weighted Average Interest Rate,
1966-81."

Source: *Central Bank Statistical Bulletin:* "Savings and Time Deposit Interest
Rates."

Both leverage and liquidity ratios are significantly associated
with average profitability, and in the predicted direction. This result
is also consistent with the concept that banks obtain profit compen-
sation in exchange for higher solvency and liquidity risks assumed
through its relending of borrowed funds. The interest rate variable
was found to be insignificant, although of the predicted sign. This
may be because the *IRD* is already reflected in the *L/D* variable

since lending and deposit generation depends on the prevailing interest rates.

Finally, profitability can be related to the size of banks from a purely relative standpoint, i.e., based on a ranking of banks rather than percentage share in the market. A direct approach is to rank banks from highest to lowest: first, according to asset size and, second, according to return on average net worth *(ROI)*. Will the two rankings be statistically similar? A Spearman Rank Correlation test was run for each year under study. A coefficient of 1.0 indicates perfectly identical ranking under each classification, − 1.0 implies perfectly opposite ranking and imperfect relationship in between these numbers. The results are in Table 6.

Table 6 — Spearman Rho Coefficients: Assets Versus ROI[1]

Year	Number of Banks	Spearman Rho
1966	36	.71
1967	34	.67
1968	33	.58
1969	34	.58
1970	33	.56
1971	31	.49
1972	32	.55
1973	28	.42
1974	32	.56
1975	26	.38
1976	26	.58
1977	27	.52
1978	28	.59
1979	28	.45
1980	28	.39
1981	29	.60
1982	29	.44

[1] All statistically significant at .01 level except 1974 and 1980, which are both significant at .05 level.

There is a clear pattern of a highly significant relationship between bank asset size and returns on net worth. The behavioral implication is that given the already high industry returns due to an increasing concentration in the industry, each bank still has to be concerned about its relative resource base positioning in the industry

That is, the distribution of industry profits among specific banks can still be a competitive and perhaps, size-dependent, affair.[4]

6. The Impact of the Banking Reform of 1972
On Industry Performance and Structure

In April 1973, the Monetary Board issued the guidelines on the increased capitalization and merger/consolidation of commercial banks. The objective was to widen the capital base of the private sector of the commercial banking system to at least ₱3 Billion by 1975 by requiring each bank to raise its capital to a minimum of ₱100 Million by September 1975.

At this time, or about 10 years after that policy pronouncement, it would be possible to comment on some empirical results on the industry's performance and structure. This study will now focus on this task.

At the end of 1972, the total capital of the private commercial banking sector stood at ₱863 Million. By the end of 1975, this went up to ₱2.48 Billion, which when combined with PNB's increased capitalization of ₱500 Million, implies that the ₱3 Billion target has been met. This adjustment was achieved by the banking system with the following results:

1. The number of private commercial banks decreased from 33 in 1972 to 25 in 1976.

2. Bank mergers started in 1974 and has continued since then as some banks first set out to meet the minimum capitalization requirement and then later, combined resources to survive in a marketplace where fewer and larger banks do business. Table 7 summarizes the bank mergers and consolidation since 1974.

The primary objective of the banking reform of 1972 was to enhance the stability of the industry by widening the capital base of the banking system. Presumably, the expected benefits on the banking system would be from the following effects:

a) An increased capability to generate and support a larger deposit base, and hence, loan funds for productive projects; and

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[4] Again, it could be said that this relationship was observed even as the largest bank in terms of assets, PNB, consistently fared poorly in the ROI ranking (e.g., it was 22nd among 29 firms in 1982 ROI).

Table 7 — Bank Mergers and Consolidation
1974-81

Year	Banks Involved in Merger/Consolidation	Assets of Merged or New Banks as Percentage of Total Industry Assets	Net Worth of Merged or New Banks as Percentage of Total Industry Net Worth
1974	BPI — Peoples BA — Bank of Asia — Insular Bank of Cebu	12.0	10.0
1975	Associated — Citizens	3.0	2.5
1976	Filipinas-Manufacturer's Pacific-Progressive PCIB-Bank of Commerce-Merchants	13.5	9.5
1977	Feati (City.Trust) Continental (Interbank)	3.0	3.0
1980	Pilipinas	3.0	1.0
1981	BPI-Comtrust Commercial Bank of Manila Family Bank	12.5	9.0

b) Increased profitability and scale economies due to large volume of business.

The second hypothesized effect is simpler to test empirically using an extension of the regression exercise in Equation (5). This can be done by introducing a dummy variable for the increased capital requirement $(DICR)$ which takes a value of zero prior to 1975 and one on 1975 and thereafter (the year 1975 was when the adjustment process, to the target ₱3 Billion system capital, was completed). As the interest rate differential (IRD) was found to be insignificant in equation (5), this variable could be replaced by ICR in the regression. The expectation for the coefficient of $DICR$ is clear; due to the increased capitalization requirement, ICR should have a significant

ficant positive relationship with the average *ROI* of the banking industry.

The result of this regression exercise is summarized in Equation 2:

(2) $ROI = 9.78 + 1.641\ ICR + .002\ TL/NW\ \ \ + .034\ L/D$

$(t = 2.317^{**})\ (t = 1.556)\ (t = 2.506^{**})$

$-0.381\ H_s$

$(t = 2.417^{**})$

$F\ = 9.546^{***}$
$R^2 = .776$
D.W. $= 1.77$ (no autocorrelation at $\alpha = .1$)

Significance levels are indicated in Equation (1).
Chi-Square test indicates significant correlation among
independent variables

The significant positive relationship between profitability and increased capitalization was supported by the empirical result. It should be noted that the increased capitalization requirement has an immediate effect of reducing the *ROI* through an increase in net worth. The result indicates that the *ICR*'s beneficial effect of increased profits was sufficient to offset its opposite, *ROI*-reducing, net worth effect. The multi-collinearity which hampers the result in Equation (2) may not be serious. Comparing Equation (2) with (1), it is noted that the entry of *ICR* reduced the variable *TL/NW* to insignificance. Thus *ICR* serves to summarize, and in a parsimonious way (considering its dichotomous nature), the effects of *TL/NW* on *ROI*.

Another approach in the evaluation of the increased capital requirement is to conduct a before-and-after comparison of banking industry performance indicators, as shown in Table 8.

The previous finding that banking industry profitability was higher after the increased capitalization requirement is supported further. The average *ROI* of the banking industry shifted from 8.6 to 14 per cent during the adjustment period and moved even higher, to about 15.3 per cent, after the required capitalization was in force. Table 8 reveals some further statistically significant shifts in the

Table 8 — Industry Performance Indicators: Before, During and After the Increased
Capitalization Requirement

Time Period	ROI		TL/NW		L/D	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
1. Before ICR: 1966-71	8.64	12.64	6.53	2.46	1.10	.37
2. Adjustment Period: 1972-75	12.03	7.22	8.02	3.3	1.47	.67
3. After ICR: 1976-81	15.28	14.92	9.60	3.55	1.31	.60
Analysis of Variance (ANOVA): Probability that the mean ratios are the same.)	nil (less than 0.0001)		nil (less than 0.0001)		0.0001	

traditional solvency and liquidity indicators for the banking industry, as follows:

1. The overall mean leverage of the banking system has significantly gone up since the legislated capital increase, from 6.5 times net worth to about 50 per cent higher or 9.6 times net worth.

This observation is somewhat disturbing. On one hand, the expanded average net worth would have enabled the banks to generate more deposit and other liabilities for rechanneling into productive investments. On the other hand, bank creditors have relatively less protection against the risk of asset shrinkage after the legislation enforcing the capital buildup.[5]

2. The average liquidity of the banking system may be significantly lower after the capital buildup legislation, as shown by the increasing loan to deposit multiple. However this will have to be a guarded inference at best since the L/D is an imperfect measure of liquidity, particularly as banks begin to rely more on non-deposit sources of loan funds.

7. Conclusions

Subject to the more detailed qualifications specified in the study, the following are the findings and conclusions regarding the structure and performance of the Philippine commercial banking industry:

1. Banking remains a growth industry, with a much higher growth experience in the last two decades than the economy as a whole.

2. Banking has been a concentrated industry, i.e., a few firms hold a disproportionately large share of the market. As a result, one can presume that the threat of oligopolistic practices exists (high interest and profits). However, the government bank, PNB, accounts for the largest share of the market. There is preliminary evidence that PNB's pro-

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[5] In the pre-legislation period, an average shrinkage in assets on liquidation of about 13.3% (1/7.53) could still be absorbed by the owners prior to full payment of its creditors. This margin went down to about 9.4% (1/10.6) after the legislation, or a significant 30% decrease.

fitability actually decreased as its dominance of the market increased, a sign that it may be extending its lending out reach without imposing sufficient profit compensation which is inconsistent with oligopolistic practice. The same is not true for the rest of the banking industry — higher profitability was observed as the industry became more concentrated to fewer private commercial banks, although the evidence was by no means overwhelming.

3. The larger the total assets of a bank, the higher its profitability *(ROI)*. Over time in the last two decades, the ranking of banks as to total assets has changed due to new entrants, exits, mergers and consolidation and competitive positioning. Regardless of these changes, *whichever* banks managed to become some of the largest in the industry ended up showing some of the highest rates of return.

4. The higher the industry leverage, as measured by the Liabilities-to-Net Worth Ratio, the higher the profitability of the banking industry. On the average, banks get some degree of profit compensation for higher leverage risk.

5. The higher the industry liquidity risk, as measured by the Loans-to-Deposit Ratio, the higher the profitability of the industry.

6. From a purely regulatory viewpoint, the two previous inferences indicate that it might be tempting for banks to obtain higher returns to stockholders by increasing borrowings and extending more loans for any given level of deposits. At the very least, it should be useful for the Central Bank to regularly monitor such indicators to determine how the industry makes these trade-offs.

7. The Central Bank-imposed capital buildup program of 1972 further increased the level of concentration of firms in the banking industry. The study found that the previously noted trade-offs between profitability and leverage or liquidity risk have been accentuated after the perfection of the capital buildup program. That is, the average profitability, leverage and liquidity risk indicators of the banking system all shifted upwards after the Central Bank legislation of 1972.

8. The policy interpretation of the previous finding regarding the 1972 banking reform is unambiguous: both the banks and the Central Bank may have emerged as "winners" of the successful capital buildup program -- the banks, since profits were higher after the program and the government, since deposit generation was enhanced, with increased lending for investment projects. However, it also implies that there is probably no more turning back into the comparatively lower leverage and liquidity risk of the pre-1972 years. In short, the bets of these two major participants in the banking game are now much higher after the capital buildup program. Any future policy moves to further reduce or consolidate the banking industry into even fewer banks are likely to have a similar effect. It is probably in this context that one should evaluate views expressed by certain sectors that Central Bank should let distressed banks in the current crisis get out of the system altogether (e.g., see "Survival-of-the-Fittest Policy For Banks," *The Metro Manila Times*, January 30, 1984).

REFERENCES

Lamberte, M. B. (1982), "An Analysis of the Behavior of Commer cial Banks," Staff Paper Series No. 82-05 (December), Philip pine Institute of Development Studies (PIDS), Makati, Metro Manila.

Lindsey, C. (1980), "Changes in Market Concentration in Philip pine Manufacturing: 1960-70," *Philippine Review of Econo mics and Business,* XVII (March/June).

Patalinghug, E. (1983), "Market Concentration in Philippine Food, Home Appliance and Textile Industries," *Philippine Review of Economics and Business,* Vol. XX, No. 2 (June), pp. 215 233.

Saldaña, C. G. (1983), "Corporate Financial Performance Analysis and Forecasting: Industry and Competitive Influences," Dis cussion Paper No. 83-13 (November), Business Research and Publications Program, U.P. College of Business Administra tion.

Scherer, F. M. (1980), *Industrial Market Structure and Economic Performance.* Second Edition, Chicago: Rand McNally Publish ing Co.