

Agency Relationship and Monitoring System in Commercial Banks

Hilda Rossieta

Abstract

Complexity of agency relationship in commercial bank demand special monitoring systems covered both market-based and regulatory measures to prevent moral hazards associated with the existence of information asymmetry. Unfortunately, conflicting objectives between the two measures sometimes occurs. In this case, I argue that monitoring system should focus on signals of the risk exposures confronted by bank.

Keywords: Relationship and Monitoring System

Jensen & Meckling (1976, p. 308)¹ defined agency relationship as:

'a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent'

From the economic perspective, Ross (1979)² perceived the agency relationship as the most common modes of social interaction, such as between employer and employee, the state and the governed and shareholders and managers.

Delegation of decision making is then resulting the condition of information asymmetry in favour to agent (Penno, 1984)³. This is likely to promote the possibility of moral hazards among agents that might cost principal's interest (Rose, 1992; Rappaport, 1998). Rappaport (1998) and Jensen & Meckling (1976) provide further support for the likelihood of moral hazard when they maintained that in some situations, managers and

shareholders are likely to have different and conflicting objectives. In the economic literature, the study of information flows in a general equilibrium context or financial intermediaries in monetary models are some examples of moral hazards problems raised by agency theory⁴. One of the possible agency relationships in commercial banks is proposed in Diagram 1.

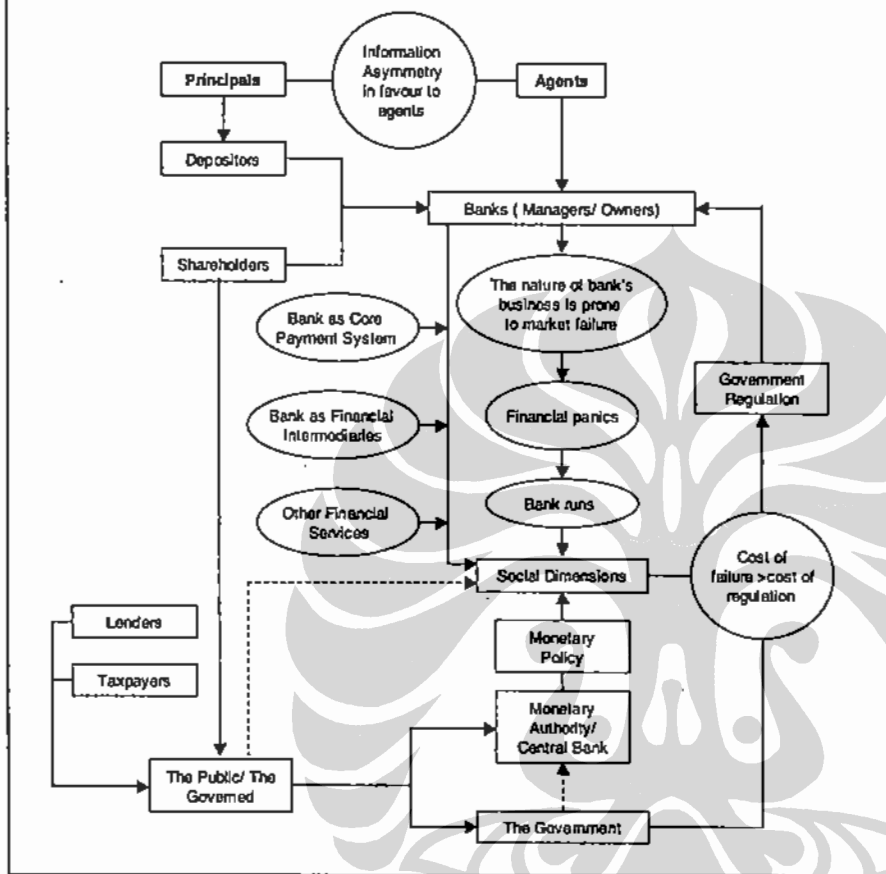
Differ to other kinds of businesses, in which agency relationship predominantly concern with the managers/owners and shareholders relationship, the relationship in the commercial banks is likely to be more complicated. However, the issue of information asymmetry and moral hazards problem are perceived to be equally important. Accordingly, several patterns resemble agency relationship, among others, are:

- Depositors are principals and banks (i.e. managers & owners) are their agent to provide some return. Depositors, who had no entry or exit barriers to the bank, could optimise their investment by practicing investment and liquidity diversification. However, there might be reluctance to risk loss of capital if there is any doubt about liquidity preference. When the bank enters financial distress from liquidity problems or insolvency, not only shareholders as a conventional principal risk will lose money, but also in particular are depositors. This is due to the fact that most of bank's assets were financed by depositors' money. In addition, the latest development in bank's business that shifts its activities into non-traditional banking⁵ (i.e. OTC derivatives such as swaps and fund management) has put more risk on depositors, since those activities are secret by nature and involving particular degree of speculation⁶. The condition of information asymmetry allows managers/owners to engage in excessive risk taking activities go unnoticed by depositors.
- Another level of agency relationship existed when bank performed its function as the core payment system, financial intermediaries and other financial services (i.e. fiduciary services, securities-related services,

1. Jensen, Michael C & William H Meckling, *Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure*, *Journal of Financial Economics* 3, page 305-360, 1976
2. Ross, Stephen A, *The Economic Theory of Agency: The Principal's Problem*, *American Economic Association*, Vol 63 No.2, May 1973
3. Penno, Mark, *Asymmetry of Pre-Decision Information and Managerial Accounting*, *Journal of Accounting Research*, Chicago, Spring, 1984
4. Ross, Stephen A, *The Economic Theory of Agency: The Principal's Problem*, *American Economic Association*, Vol 63 No.2, May 1973, p.134
5. Edward, Franklin R & Frederick S Mishkin, *The Decline of Traditional Banking: Implication for Financial Stability and Regulatory Policy*, *Economic Policy Review - Federal Reserve Bank of New York*, New York, Jul. 1995
6. Walter, Per and Par Krause, *Hedge Funds - Trouble Makers?*, *Quarterly Review*, 1999

Hilda Rossieta, Staff Pengajar Jurusan Akuntansi Fakultas Ekonomi Universitas Indonesia

Diagram 4
Agency Relationship in Commercial Banks



off balance sheet risk taking, insurance and real estate related agencies) that have social dimensions. At the same time, the nature of bank's business is prone to market failure. Hence, the propensity to financial panics and bank runs are adding more to the social dimensions, in which the whole public, including lenders and taxpayers, may also be affected (Fraser et al, 1995)⁷

- Accordingly, for several reasons, in particular are information asymmetry and the associated moral hazard possibility, some authors maintained

that regulating the banking system is perceived to be useful and economically beneficial for the society (Fraser et al, 1995; Bhattacharya, 1998; Kroszner, Randall S, 2000). Practically, monetary rule is under the domain of government power. However, in constitutional democracy, the government is elected by the public periodically. Hence, I argue that in this case the relationship between government and the public resembles the agency relationship.

- When political leaders seek to be (re) elected by the voters, they tend to

use policy instrument, including monetary policy, in particular is the power of money creation, to increase their re-election chance⁸. To avoid these ill-effects, the societies appointed independent central bankers to maintain the public interest accordingly. Yet, since the action of central bankers is often motivated more by their own interest (i.e. reappointment, opportunities of post-central bank employment, public criticism avoidance) rather than the public interest, the independency objective is unlikely to be applicable. The reason is mainly due to central bankers' tendency to please the elected officials as a way to win their own interest. In this case, Fratiani et al (1997)⁹ named the problem as principal-agent problems between monetary authority and the society. Therefore, he implies the existence of agency relationship between those two parties.

Monitoring System in Commercial Banks

Assuming that monitoring system is found useful by both agents and principals to signal performance, and considering the configuration of agency relationship as shown in diagram 4, some significant issues on monitoring system in commercial banks, among others, are:

- The agency relationships have to deal with monitoring activities that covering market-based signals (i.e. shareholders interests) as well as regulatory compliance signals (i.e. the public interest, including depositors, lenders and taxpayers).
- Unfortunately, the interests of shareholders and the public are not always compatible. In term of corporate control, Prowse (1997)¹⁰ provides empirical evidence that market mechanism in US Bank Holding Companies (BHCs) are ineffective compare to that of manufacturing companies.
- This is mostly due to the fact that hostile take over are not permitted by regulation and bank board of directors are more tolerant to poorly performing managers. Hence, regulators

7. Fraser, Donald R, Benton E. Gup & James W. Kolari, Commercial Banking – *The Management of Risk*, West Publishing Company, St. Paul, MN, USA, 1995
 8. Rogoff & Sibert (1988) in Fratiani et al, 1997.
 9. Fratiani, Michele, Jurgen von Hagen & Christopher Walter, *Central Banking as a Political Principal – Agent Problem*, *Economic Inquiry*, Huntington Beach; April 1997; Vol 35, Iss.2; pg.378, 16 pgs.
 10. Prowse, Stephen, *Corporate Control in Commercial Banks*, *The Journal of Financial Research*, Vol. XX No.4, Winter 1997.

intervention to discipline managers is perceived as the primary force.

Accordingly, I argue that in defining monitoring system of performance signals in commercial banks, both measures (i.e. market-based and regulatory) should be covered.

As government regulations cover broad interest in the society (i.e. depositors and the public as a whole), some authors (i.e. Crockett, 2000; White, 1992) perceive that classification of regulation and the corresponding characteristics as necessary to evaluate the effectiveness of government regulation. Crockett (2000)¹¹ proposed classification of government regulation banking industry based on the prudential dimensions of financial stability, as can be seen in the following table.

He argues that even though those two financial stability dimensions (i.e. micro and macro-economy) have different objectives and conception, the instruments used to achieve those objectives are less distinct.

White (1992) approaching the classification slightly different when stating government regulation as having two faces: first, the economic regulation and second, health-safety-environment regulation. Further, he argues that proper execution of the second face of regulation would prevent banks (i.e. managers and/or owner) from engaging in excessive risky activities.

Considering White's (1990) faces of

government regulation and Crockett's (2000) dimensions of financial stability as stated previously, the attentions of regulatory monitoring system is focused on bank's risk exposures. In fact, it is similar to the interest of market-based monitoring system. Hence, as Blanden (1997)¹² point out, whatever signals produce by the monitoring system, one of the main objectives is to monitor the risk exposures confronted by the bank (see diagram 2 for an illustrative explanation).

Corporate Performance Signals in Commercial Banks

One way to review the studies of corporate performance signals in commercial banks is by focusing on different dimensions of financial stability (i.e. macro & micro economy) as proposed by Crockett (2000) on table 1.

Parallel with common research in the area of corporate performance signals, one stream of study developed in the micro-prudential dimension is the use of accounting data as signals to predict bankruptcy. To some extent, this relates to the micro-economy conceptions of the functioning of the economy, which assumes that financial stability significantly determined by the individual banks. Hence, the ability to predict and contain bankruptcy becomes quite critical in the pursuit of financial stability.

Santoso (2001)¹³ provide some useful summary regarding the independent variables used in the bankruptcy predic-

tion studies. Further, he criticizes the weaknesses of the quantitative methods used in those studies. However, he did not say much about the heavy use of accounting ratios (i.e. the independent variables) as signals of the risk exposures confronted by the bank. One possible reason might be due to the conclusion provided by previous studies of the kind applied in non-bank industry. Accordingly, accounting ratios could predict bankruptcy and thus useful for cash flows and bankruptcy predictions.

Yet, whether it provides better prediction compare to stock prices was undecided. This is likely true in the context of commercial banks, in which the bank business has shifted to off-balance sheet transactions (i.e. derivatives and funds management). Thus, awareness of the limitations of accounting number (i.e. financial indicators) to signal bank risks is increasing. Assuming the market will search for alternative information to confirm the banks conditions, stock price is likely to provide better prediction. However, in the case of failing and outperforming bank, market based information might also provide misleading signals, in particular is regarding the specific risk.

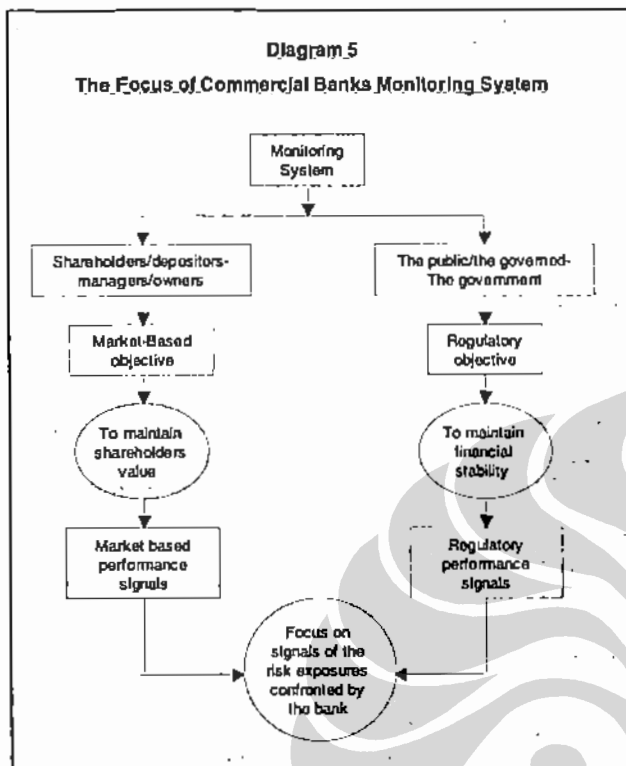
Another path of development in quantitative models is neural networks, mathematical models of brain activities that imitate human information processing tasks, such as done by Shah & Murtaza, 2000¹⁴. Further, they claimed that the model demonstrate favourable performance compare to the other quantitative model noted in their study (i.e. Bell et al. 1990; Coats and Franklin, 1993; Suh et al, 1994; Raghupathi, 1995). Yet, Shah & Murtaza (2000) admit that performance of the model may be improved by 'including some cash flow variables and non-

11. Crockett, Andrew, *Marrying the Micro- and Macro-Prudential Dimensions of Financial Stability*, 11th International Conference of Banking Supervisors, Basel, September, 2000, accessed from www.bis.org at Aug, 2001.
12. Blanden, Michael, *Can the Risk be Seen, The Banker*, London, May 1997.
13. Santoso, Wimboh, *The Determinants of Problem Banks in Indonesia (An Empirical Studies)*, BIS, January 2001, accessed from www.bis.org on 19 March 2001
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Table 1

The Micro-and Macro-Prudential Dimensions of Financial Stability (Adapted from Crockett, 2000)

Description of Characteristics	MICRO-ECONOMY	MACRO-ECONOMY
Objective	Restricting 'idiosyncratic risks'	Restricting 'systematic risks'
	A means of protecting depositors	A means of preventing significant portion of financial system failure and the associated costs incurred.
Conceptions of the functioning of economy	Exogenous (the financial system outcome significantly determined by the individual firms)	Endogenous (the financial system outcome significantly determined by collective behaviour of individual institutions)



financial factors, in addition to the financial ratios used'. (p.84)

Another stream of studies in the area of bankruptcy prediction directed toward the use of non-quantitative models, such as judgemental approach (Clark et al, 1997)¹⁵. The result of the study shows superior result (i.e. better prediction & more accurate classification of ongoing and failed firms) compare to quantitative model, in particular is Altman (1968) discriminant analysis models.

Bank rating is another alternative risk signals available instead of stock price and accounting numbers. Nevertheless, findings from the previous studies (i.e. Weinstein, 1971; Wakeman, 1981) indicate that ratings are not conveying new information to both bond and stock markets. Thus, as in the case of stock market reaction when dealing with failing and outperforming bank, exaggeration is most likely to happen.

ing systems covered both market-based and regulatory measures to prevent moral hazards associated with the existence of information asymmetry. Unfortunately, conflicting objectives between the two measures sometimes occurs. In this case, I argue that monitoring system should focus on signals of the risk exposures confronted by bank.

As off-balance sheet transactions in bank business getting more significant, the uses of financial-quantitative models to capture risks in commercial banks become obsolete. On the other hand, the contingency approach that theorizing more on the qualitative characteristics of the successful banks has lack of empirical support linked to bank financial achievements. Future research direction should put more attention to balance qualitative and quantitative measures to signal risks exposures confronted by commercial bank. **U**

Using different approach, Ricard & Perrien (1999)¹⁶ and Radecki et al (1997)¹⁷ addressed performance signals by identifying contingency factors as the key to success. Contrast to the bankruptcy prediction studies, the contingency theorizing more in the qualitative characteristics of the successful banks. Therefore, there is lack of empirical support that link the existence of the key success factors with bank financial achievements.

Concluding Remarks
Complexity of agency relationship in commercial bank demand special monitoring

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