An Analysis of the Financial Supervision System of Vietnamese Banks

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A national financial supervision system of banks is considered efficient if such a system achieves specific objectives corresponding to the situation of the nation, and each objective includes supervising indicators. The formation of a system of financial supervision indicators is the backbone of the entire quantitative analysis process needed for the financial supervision. The research aims at formulating a system of financial supervision indicators, using the factor analysis to analyze components and find the weights of these factors in the general financial supervision index reflecting the efficiency of the financial supervision in Vietnam in recent years, and finally, reaching a conclusion about the financial supervision in Vietnam today and making suggestions about related policies.

1. Necessity of the research

What is an effective system of financial supervision of banks has been studied by numerous researchers and cared about by governments, but banking and financial crises keep taking place as an inevitable trend. In the 2008- 09 global financial crisis a lot of banks went bankrupt, and securities and currencies from all over the world lost their values. Experts have agreed that its causes include the housing bubble and imperfect financial supervision in the U.S. The crisis forces researchers and policy makers to build a more effective and suitable financial supervision system.

Overestimate of self-discipline of the market and excessive dependence on internal auditing and supervising systems of companies while neglecting the government as a supervisor and regulator are one causes of the financial crisis. Making the best use of the financial supervision system requires cooperation and participation from related parties and the leading role must be played by the state supervision agencies.

Banking- financial supervision by the state are controlling and supervising acts by supervising agencies over banking institutions in order to ensure safety and healthy development of the banking system and control systematic risks. In Vietnam, studies of this subject based on qualitative analyses have produced many results but a framework for quantitative analysis of financial supervising indicators has not been well developed. This will be a major academic subject in Vietnam in future.

A framework used for analyzing quantitatively a system of financial supervising indicators means combining specific objectives of the financial supervision, while evaluating efficiency of the financial supervision should include estimates of realization of each objective, and an overall evaluation of implementation of all objectives. That is why we try to suggest "a system of financial supervising indicators" that reflect the efficiency of the financial supervision based on some characteristic indicators. This system comprises indicators that reflect organic relations between financial supervising indicators and overall efficiency of the financial supervision.

2. Objectives and model of financial supervision

Objectives of the financial supervision are preconditions for an effective supervision and a basis for supervisors to carry out their jobs. According to Diệp and Trương (2009), a financial supervising system has four objectives: macro-financial stability (including macroeconomic and financial stability); safety and stability of operations of banking institutions; protection for investors; and enhancement of efficiency of the finance market. In this research, we use these objectives to build the system of financial supervising indicators, calculate general financial supervision index and analyze the financial supervision in Vietnam.

a. Macro-financial stability:

This objective reflects itself in the following indicators:

- Trade balance (US$ million)
- GDP based on 1994 price (VND billion)
- Inflation rate
- Deposit in the VND (VND billion)
- Domestic credit in the VND (VND billion).

b. Safety and stability of operations of banking institutions:

The objective is determined by efficiency of risk supervision in banking institutions Demirguc-Kunt and Huizinga, 1999) through the following indicators:

- Ratio of total credit supplied to total deposit
- Liquidity (ratio of cash and deposit with the SBV to total assets)

In this research, we don't treat capital adequacy ratio and bad debt as indicators (the basis for calculating the capital adequacy ratio includes the total assets adjusted to risks) because we estimate that data reported by commercial banks about such indicators are not reliable. In future when these data are exact and reliable they can be taken into consideration.

c. Protection for investors:

Financial authority should pay full attention to interests of not only financial groups but also depositors, investors and consumers. This is a new principle for modern financial supervision and, as Dr. Lê Xuân Nghĩa, Vice- Chairman of the National Financial Supervision Committee put it on July 13, 2009, restructuring of the Vietnamese financial- banking system must be based on this principle.

- Difference between profitability ratio for investors and VND deposit rate
- Difference between investor's profitability ratio and VND lending rate
- Difference between investor's profitability ratio and inflation rate.

d. Efficiency of finance market:

- ROE (Return on equity): Ratio of net profit to chartered capital or owner's capital
- H (Herfinddahl Index): It reflects efficiency of the structure of banking – finance market and is an indicator that reflects the concentration ratio of the market ($0 < H < 1$, moving from a huge number of very small firms to a single monopolistic producer). H is equal to the ratio of the sum of the squares of assets of each banking institution to the squares of total assets of the industry. Its formula is as follows:

$$H = \sum_{i=1}^{n} \frac{a_i^2}{A^2}$$

where: a_i is the asset of the banking institution i in the industry; and A is total assets of all banking institutions in the industry.

The above objectives allow us to express the building of the financial supervising system in a model as in Figure 1.

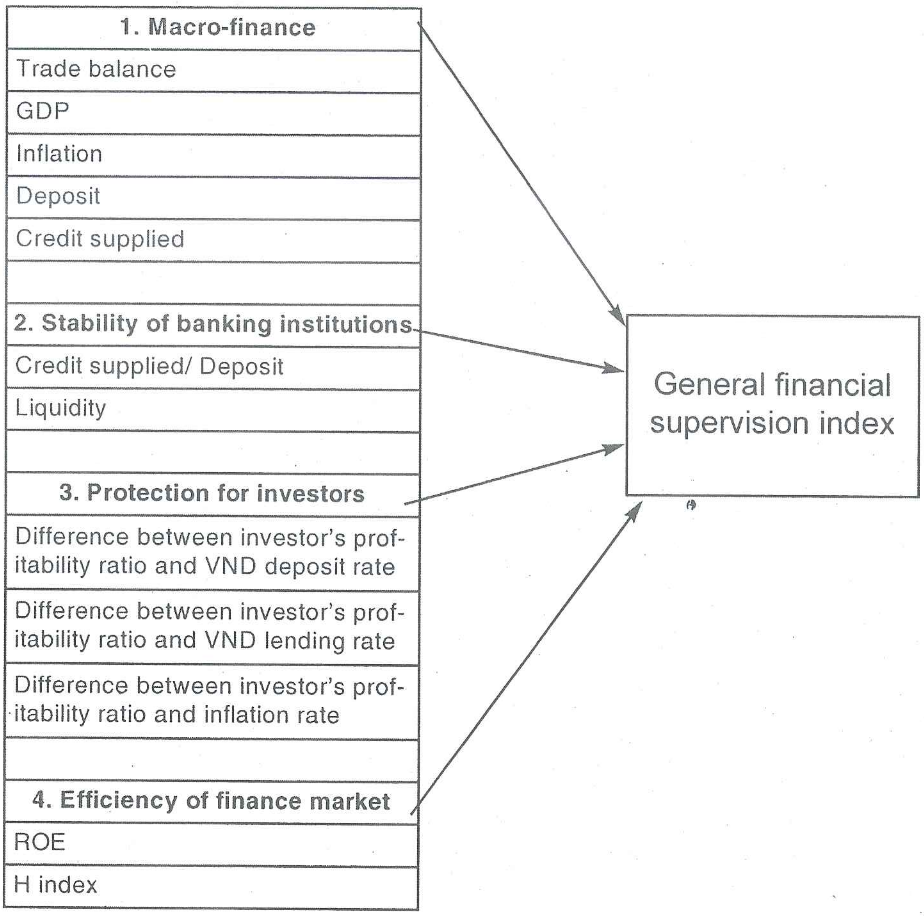
3. Developing the general financial supervision index from Vietnam's system of financial supervision indicators

a. Source of data:

To work out the above-mentioned indicators, we gather and handle related numerical data from 2003 to 2008. The main sources are as follows:

- Annual reports from banking authority provide data about trade balance, GDP based on the 1994 price, inflation rate, total deposit in the VND, total credit supplied in the VND, and lending and deposit rates.
- Financial statements from 21 commercial banks selected as samples help us calculate their

Figure 1: Model presenting calculation of general financial supervision index



total assets, total credit supplied, total deposit, chartered capital, cash and reserves deposited with the SBV, and net profits, etc.

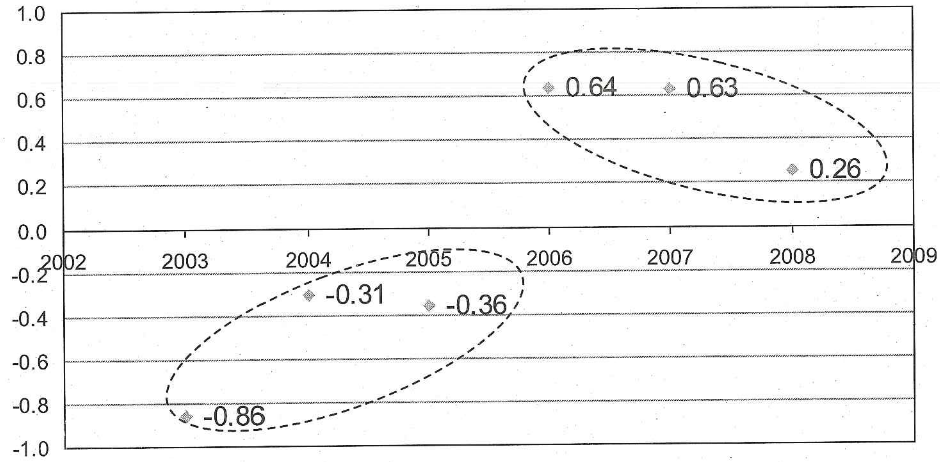
b. Methodology:

First of all, data about 12 detailed indicators of the four objectives of the financial supervision in the past six years from 2003 to 2008 are standardized in order to measure them according to standard deviation. Secondly, we apply factor analysis to 12 variables to divide them into four component indexes reflecting the four objectives of the financial supervision. The components indexes are then turned into four new variables. Thirdly, the general financial supervision index is calculated based on component indexes and their weights. The weight of each component index used for calculating the general financial supervision index is variance of all detailed indexes of the four objectives explained by each factor representing each component index.

Table 1: Results of calculation of general financial supervision index based on component indexes and corresponding weights

	2003	2004	2005	2006	2007	2008
Component 1: Macro-finance (weight 0.4827)	-1.3257669	-0.4573859	-0.40379262	-0.17995967	1.3187049	1.04820022
Component 2: Stability of banking institutions (weight 0.3311)	-0.7876254	0.27577124	-0.26178781	1.587461267	0.4249195	-1.2387388
Component 3: Protection for investors (weight 0.1580)	0.22534422	-1.2592359	-0.29410125	1.26103844	-0.8842891	0.95124356
Component 4: Efficiency of finance market (weight 0.0175)	0.15742926	1.24279423	-1.7186931	0.122111618	-0.3722373	0.56859534
General supervision index	**-0.8623711**	**-0.3066827**	**-0.35813377**	**0.640122919**	**0.6309979**	**0.25606674**

Figure 2: Variance of the general financial supervision index in 2003-2008



4. Results

From results of the factor analysis, we work out the weight of each component index within the general financial supervision index. As shown above, the weight of the component 1 (macro-financial stability) is 48.274%; of component 2 (protection for investors): 33.10%; of component 3 (safety and stability of operations of banking institutions): 15.797%; and of component 4 (efficiency of finance market): 1.748%. After extraction, 12 supervising indicators are turned into four component indexes, and from these indexes and corresponding weights, the general financial supervision index is worked out. Values of the general financial supervision index over years are shown in the bottom row of the Table 4 and presented in the Figure 2.

5. Conclusion and policy suggestions

The Figure 2 shows that in the years 2003 – 2008, changes in the financial supervision index underwent two phases: (1) the general index was improved remarkably in 2003 – 2006; and (2) the general index fell in 2007, and in 2008 in particular, which proved apparent effects of the financial crisis on the Vietnamese economy.

Considering values of factors, we see that the increased general index was due to the component 1 affected by macroeconomic indicators (its weight was nearly 50%). It rose high, except for 2008, which proves that the supervision affected positively the stability and development of the macrofinance. This is also the most important objective of the financial supervision. Increases in the general financial supervision index, however, reveal some problems. For example, values of the other three components were not stable and changed drastically over years. This means that the financial supervision had paid too much attention to one objective and neglected the others.

This conclusion allows us to offer the following suggestions:

- ***Firstly***, it's necessary to set clearly objectives of the financial supervision because it is a precondition for an effective financial supervision. The financial supervision should not only support the efficient implementation of the monetary policy but also prevent and neutralize financial risks; and protect depositors' interests. As we know, in the process of implementing these objectives, there will be conflict between the monetary policy and banking supervision, which will reduce the efficiency of the banking supervision. These objectives are both independent and interdependent. This is why it's hard to achieve all objectives even in developed countries where the financial supervision systems are more perfect.

- The above analysis shows that in recent years, the financial supervision didn't pay even attention to all objectives, and the financial supervision index wasn't stable and fell in 2007 – 2008. One of causes of this situation is that fact that organizational structure of the SBV supervision and inspection system lacks cooperation between its departments, which goes against principles of a modern and centralized banking supervision system (a precondition for an effective banking supervision is its sufficient resource and independence).

In our opinion, it's necessary to reform the organizational structure of the banking supervision system. The reform should have a schedule appropriate to current conditions in order to avoid shocks to the economy, and with the aim of improving the efficiency and requiring the possibly lowest cost. For the time being, a banking supervision committee under the SBV in form of a general office could be formed. In the near future, up to 2015 perhaps, when the finance market reaches a higher level, the function of banking supervision could be separated from the SBV and assigned to the National Financial Supervision Committee (this committee was established in March 2008 as an advisory agency for the PM who has recently required it to supervise general risks without intervening in banking institutions), so it could supervise the banking system along with the stock exchange and insurance industry. This approach is also appropriate to the Conclusion 181 – TB/TW by the Politburo about measures to develop the banking system up to 2010 and direction for 2020 that reads, "an inspection system under the SBV must be formed and in a long run it will be directly under the central government and inspect the banking, securities and insurance businesses."

- Functions, duties and rights of the SBV, Minister of Finance, State Securities Committee, National Financial Supervision Committee, and Vietnam Deposit Insurance – members of the national financial safety network – and how they cooperate with one another must be clarified.

- Supervising method must be reformed. At present, all developed countries have built their risk supervising mechanisms. The supervision method should be also turned into risk supervision: pay more attention to the risk supervision instead of being limited to supervision of implementation of banking regulations. Moreover, a system of financial supervision indicators must be developed based on modern technology and the task of predicting and warning about risk must be done better.

- International cooperation in the financial supervision is necessary. As for international banks, their supervision departments keep a close watch on such matters as capital adequacy ratio, and solvency, etc. while the national supervision agency supervises quality of assets, liquidity and internal management, etc. of branches of foreign banks in the country. Supervision agencies of the two countries usually exchange information about objectives, principles, supervision methods and other problems arising from their jobs.

Our research results reflect the implementation of the financial supervision in Vietnam in recent years. Indicators selected all have visible effects on the financial supervision index, which proves that selected indicators are reasonable enough. Present globalization makes the financial supervision a complicated issue and it forces us to face questions of whether or not the Vietnamese financial supervision could deal with challenges posed by the financial globalization and ensure safety and efficiency of the whole financial system. They are also problems researchers and policy makers should study and solve.

6. Shortcomings and further researches

The set of indicators used in this research is not sufficient because of various reasons: lack of exact data, and existence of some indicators we consider as unreal. Moreover, the building of a complete set of indicators needed for exact estimates of the efficiency of the national financial system requires efforts and knowledge of many researchers, which is beyond our reach. We only introduce some indicators based on data we could get access to and make necessary calculations. Although they are not totally exact and sufficient, the results of our research reflect part of realities. This research is only an effort to introduce a quantitative approach to the estimate of the financial supervision system. Further researches had better establish more indicators in order to perfect the value of the general financial supervision index and make it a useful instrument for the banking – financial supervision■

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