Model Structure of Commercial Banks and Development Durables in the Republic of Congo, Brazzaville

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Abstract. Based on the organ of allocation of finance, construction of the index system shall be based on a scientific and rational basis. The real objective should reflect the status quo and the development capacity development of commercial banks—not only to consider the immediate interests, but also to pay attention to long-term development, and to assume certain social responsibilities - and to choose the evaluation that reflects the overall development built under the concept of sustainable development of commercial banks. Selection and design of the evaluation should be fully integrated with the features of the commercial banking industry, and the reality of the commercial banks of Congo. The development structure of The commercial bank system has been used in the bank of Congo, and it has achieved good results.

Introduction

In recent years, commercial banks sustainable development has been a dynamic accumulation, and has constantly improved its development process. In fact, the development of a sustainable business assessment must be examined from two aspects: on one hand from the lasting impact of the business development on human society and on the other hand from their own development and the guaranteed full assessment of systematic index system built for sufficient coverage, reflecting systematic principle of sustainable development. This evaluation system must be calculated with a margin of maneuver. First, the data for the selected indicators should be easily accessible to ensure the credibility of the quantitative indicator’s configuration parameters, so that the weight’s scientific basis can be determined. Indicators should have relative independence, to avoid accumulation of the 3 simple indicators, given that companies use to measure efficient capital. The higher the index value, indicating it’s own profitability the stronger the bank's capital is, and the more conducive it is to the achievement of sustainable development.

With some sensors installed in different places, sustainable development level index of economic and social indicators, including the evaluation of companies in the Dow Jones Sustainability (Dow of jones sustainability indexes, DJSI referred) was enacted in 1999, on an economic, social and environmental dimensions, assessing corporate sustainability. GRI (Global Reporting GRI acronym Initiative) has developed widely, using "GRI Sustainability Reporting Guidelines” (GRI Sustainability Reporting Guidelines) around the world for the body to monitor and disclose their development.

This paper is based on a scientific and rational of the index system, to respect the following principles:

Systematic principle: a systematic project which measurements guarantee full assessment of systematic index system built for sufficient coverage, reflecting systematic principle of sustainable development capacity of commercial banks.

Operational principles system: to calculate dates to ensure that the credibility quantitative indicators, and the qualitative indicators experience will be as little as possible.

Scientific and rational principles selection of the index and configuration of the settings, so that the weight of the index of scientific and rational assessment selected can be determined, reflecting the overall assessment of the object, to avoid biased.
The principle of the specific design of the evaluation for features of the commercial banking industry, reflects a more comprehensive level of development and the tendency of commercial banks as possible. The evaluation of the combination of the dynamic and static principle provides the immediate development of the process unit for all devices - dynamic and comprehensive information so that when the sustainability of commercial banks to assess the situation, both in terms of currency can be appropriate, according to the index system and global future development trends.

Given these results, combined with the characteristics of commercial banks and the requirements of sustainable development, the paper has been constructed from 4 level of indicators, where the commercial banks have formed eight secondary indicators of sustainable comprehensive evaluation system (see Table 1) development.

Table 1. Comprehensive evaluation index system of sustainable development of commercial Banks.

| Level indicators | The secondary indicators         | Variable | Index meaning                                      |
|------------------|----------------------------------|----------|---------------------------------------------------|
| profitability    | Retained profits(million)        | M1       | Total profit*(1-income tax rate)                   |
| profitability    | The weighted average return on equity | M2       | Retained profits/Weighted average balance of owner's equity |
| fluidity          | Liquidity ratio(RMB)             | M3       | Liquid assets/current liabilities                  |
| fluidity          | Loan-to-deposit ratios           | M4       | Total loan/The total amount of the deposit         |
| security          | Core capital ratios(%)           | M5       | Core capital/Risk-weighted assets and adjusted market risk assets |
| security          | Non-performing loan ratio(%)     | M6       | Non-performing loan balance/The total amount of loans |
| growth            | Net profit growth rate(%)        | M7       | Net profit for the current year/Net profit last year |
| growth            | Deposit growth(%)                | M8       | This year the new deposit/the total deposits end of the year |

Figure 1. Sustainable development of Commercial Banks.

Index System overall assessment of sustainable development of Commercial Banks (Fig. 1).

1) M1 net profit, net of retained earnings is subject to income tax on the total profit, also commonly referred to after-tax profits or net income is the end result of a company.

2) M2 is the weighted average return on equity (ROE), the balance attributable to commercial banks and the owners of the equity on the indicator and reflects the level of participation on the benefit of shareholders, indicating it’s own profitability the stronger.
3) M3 for the liquidity ratios RMB, the bank is the ratio of liquid assets and liquid current liabilities short-term, the liquidity ratio of the index of commercial banks should be greater than or equal to 25%.

4) M4 loan ratio refers to the ratio of total loans and total amount of deposits is a measure of banks’ fluidity risk. Central Bank’s largest share of loans and deposits of 75%.

5) M5 score capital ratio % refers to core capital and total risk-weighted assets (risk-weighted assets and 12.5 times of market risk and asset adjustments). The score ratio require at least 8% by the capital commercial bank and at least at 4% of the capital score ratio of funds.

6) M6 as non-performing loan ratio%, refers to non-performing loans of commercial banks accounted for the proportion of total loans, evaluation is an important indicator of the credit assets of commercial banks and safety.

7) M7 income growth rate refers to the increase in sums of commercial banks this year in net profit last year and net margin rates, reflecting the expansion rate of commercial banks to achieve profit maximization.

8) M8 to the deposit growth rate refers to the ratio of commercial bank deposits with the start of a new year, total deposits - reflecting the state of bank deposits and occupation from market competitive commercial banks don’t have strong enough or more durable momentum.

Construction of a hierarchical analysis model

According to the index system, building a hierarchical model can be configured. The objective structural model usually involves decision, the elements and the intermediate layer options. The purpose of this article is the analysis of sustainable development within the commercial bank’s problems and the problem with the level of sustainability of commercial banks, the decomposition of different metric factors in accordance with the nature of each index to summarize group. The first one before the next level indicators gauge play a dominant role, layer by layer to form a top-down structure of relationship dominance, we constructed a hierarchy of models as such in Figure. 1.

Hierarchy Model Commercial Bank durable 4.1 developement (image)

| Serial number | Importance grade                                      | Assignment |
|---------------|-------------------------------------------------------|------------|
| 1             | i element, j element the same important                | 1          |
| 2             | i element is slightly more important than j element    | 3          |
| 3             | i element is evidently more important than j element   | 5          |
| 4             | i element is intensely more important than j element   | 7          |
| 5             | i element is extremely more important than j element   | 9          |
| 6             | 2,4,6,8 is the medium of the above Solving model       |            |

| n | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 |   |   |   |   |   |   |   |   |   |    |
| 2 |   |   |   |   |   |   |   |   |   |    |
| 3 |   |   |   |   |   |   |   |   |   |    |
| 4 |   |   |   |   |   |   |   |   |   |    |
| 5 |   |   |   |   |   |   |   |   |   |    |
| 6 |   |   |   |   |   |   |   |   |   |    |
| 7 |   |   |   |   |   |   |   |   |   |    |
| 8 |   |   |   |   |   |   |   |   |   |    |
| 9 |   |   |   |   |   |   |   |   |   |    |
| 10|   |   |   |   |   |   |   |   |   |    |
Table 4. Analytic hierarchy process (AHP) weight calculation results.

| The target layer | Level indicators | The secondary indicators | Weight | The total weight |
|------------------|------------------|--------------------------|--------|-----------------|
| sustainable      | profitability    | Retained profits         | 0.8571 | 0.121173        |
|                  |                  | The weighted average return on equity | 0.1429 | 0.020137        |
|                  | fluidity         | Liquidity ratio          | 0.25   | 0.088318        |
|                  |                  | Loan-to-deposit ratios   | 0.75   | 0.264837        |
|                  | security         | Core capital ratios      | 0.6667 | 0.141074        |
|                  |                  | Non-performing loan ratio| 0.3333 | 0.070537        |
|                  | growth           | Net profit growth rate   | 0.25   | 0.073481        |
|                  |                  | Deposit growth           | 0.75   | 0.220443        |

Step one: to build pair wise comparison matrix
This makes each level of the judgment indicator element relatively important and give a certain value that can be useful for expert evaluation or by other means in the post. In general, in order to make quantitative analysis and decision, often based on a 1-9 scale for measuring the relative importance of Satty between elements, as shown in Table 2.

Step Two: Calculate the relative weight of each indicator based on a comparison matrix
The comparison matrix calculate the largest value and corresponding characteristics vectors, and normalized after treatment, to get to the top level element corresponding to the weight of the above, from top to bottom by the simple synthesized weighted criteria, and can be calculated by the individual elements relative to the top.

Step Three: the consistency test of comparison matrix
Issue of consistency check determines the validity of all of the analysis of the hierarchy, so we must first calculate the comparison matrix of index consistency.

Commercial Banks System Model in Application in Congo –Brazzaville
In Congo, Commercial banks system applications are as follows: Congo is in Central Africa, and the Republic of Congo presents the highest improvements in human development indicators between the period of 2013-2015, the average was 0.40; 8.3; 5.4; -7.0; -2.3 (HDI) index.

The BCI banks system has been used by an accounting design OHADA with normal system applications, allowing chronological bookkeeping and newspapers publishing, ledgers and balance. BCI and ECO BANKS are the field of finance in Congo and the banks okayed countries on ten settlement of credit is on the second position, overall assessment score between 2014-2015, with an index values of 86% on millions of domestic dates calculation realized on December 31st 2015, around 48072005074 FCFA, in one account and another account of free reserve settlement of 7514920637 FCFA. The Congolese BCI bank global annual total is 180 million (FCFA) paid in priority over the prior years and levy on behalf of free and postponed reserve again Payable after allocation of financial years. The financial statements are free of material misstatement. Flux oil production wells more than 5.3% on the other hand 3.6% with a level of inflation at 3%
It has achieved good results that it has accumulated half billion dollars of investment and increased the output of three percent. The payment from the oil exploitation is 60% of the natural resources.
Conclusions

Commercial banks system is built on the index system of sustainable development utilizing the rapid development trend of human society and quantitative configuration parameters that companies use to measure capital efficiency. The higher the index value, indicating the bank’s own profitability the stronger the bank's capital and the more conducive it is to the achievement of human society to optimize the dynamic and static evaluation of the principle of combination which provide immediate development process.. It also realizes that intelligent model evaluation is an important indicator of the credit assets of commercial banks and safety guarantee.

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