A PROPOSAL ON THE "*I* BANK INDEX," A MEASURE OF BANKS' ABILITY TO NURTURE CLIENT BUSINESSES

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Abstract

The main objective of this paper is to measure banks' capability to nurture and develop client firms.

Banks nowadays are required not only to act as providers of capital but also to provide consultation to and continuously support the restructuring and development of client firms through long-term business relationships.

In this line of thought, it is natural to evaluate banks based on the degree to which they contribute to the growth and development of client firms. Banks can reaffirm the meaning of their existence by making improvements in their client firms' performance over the long term. It is therefore desirable to align banks' evaluating index with the aforementioned goal.

The new index is defined as the difference between the average for a specific indicator of management among a bank's client firms and the national average on the particular indicator. The new index will highly value banks that are able to improve the performance of client firms regarding the particular indicator.

JEL Classification: G2, G21

Contents

1. RESEARCH OBJECTIVES

This paper aims to gauge a bank's ability to develop and nurture its client businesses. What exactly has to be done from the lender's viewpoint to perform growth-inducing financing? Can equal amounts of capital have different levels of impact on businesses?

According to Japan's Small and Medium Enterprise Agency's 2005 Version of Establishment and Enterprise Census, the number of companies in Japan reached a peak in 1986 at 5,351,000 companies and has since followed a downward path. If we take the view that the number of companies is indicative of Japan's economic health, the bell-curve peak is past, and the state of the economy has since started to follow a downward trend from some point in time.

The main issue to investigate in this paper is whether there exists a nurturing effect on businesses attributable to banks' business activities (lending and other activities attached to lending).

The Ministry of Finance of Japan has made clear its stance that banks are expected to not only function as providers of credit but also provide business consulting through long-term relationships with businesses to help with continuous improvement and foster business expansion. Recent financial supervision policies have embedded this as a basic policy. At the core of this policy is the idea that the meaning of banks' existence lies in being able to contribute to the development of client firms.

From this line of thought, it is therefore natural to "evaluate" banks, and for banks to self-evaluate, with reference to the level of their contribution to client businesses. To this end, it is preferable to make use of an index that aligns with these objectives, i.e., one that reflects the level of banks' contribution.

The viewpoint that banks' meaning of existence is the development of client businesses does not consider the relationship between banks and client businesses as a simple risk-and-return relationship. The simple viewpoint of a risk-and-return relationship assumes that no matter who provides the credit, capital is just capital. On the other hand, the viewpoint that banks also function to nurture businesses and provide consultation in addition to providing credit holds that businesses do grow exactly because they received credit and consultation from a certain bank.

In other words, a company's long-term growth prospects are affected by which bank it receives credit from. Banks are expected to raise the growth potential of client firms not only by providing credit but also by playing a part in establishing client firms' governance and assisting operations or risk management. However, at present there is no major evaluating index that reflects this idea.

The relationship between banks and client firms has reflected a cycle of give and take. As long as this harmonious give-and-take cycle is in place, we can expect it to be a driving force for economic development. It is generally accepted that this cycle does not impede or go against economic development. This is based on the idea that banks' services will help nurture client firms and promote economic development at the same time. In the short term, however, fees and interest payment that banks receive from client firms may give rise to incentives that go against long-term missions for banks and hence produce a trade-off relationship. How we find a solution to this trade-off relationship will become an important issue.

Banks often have clear-cut targets to meet. The clearer the target, the easier the assessment process. However, when it comes to establishing proof as to whether the nature of banks' targets allows banks to work in favor of promoting growth and development for client companies (as opposed to short-term profits), things are not often straightforward.

2. EXPLANATION OF THE NEW INDEX

The idea that companies' performance is represented not only by their economic value (as measured by financial indicators) but also by their value to society is gaining more and more recognition. Environmental, social, and governance investments serve as one example.

On exactly what to base judgements as to whether a company's performance has improved is something that still remains an issue. Obviously, possible indicators are not limited to only comparisons with the company's past performance or with other companies in the same industry.

The author believes it is necessary to recognize the cause-and-effect relationship between banks' activities and client companies' performance—banks' supportive activities being the cause and improvements in client companies' finances being the effect—and evaluate banks according to their contributions to client companies.

This paper will therefore model banks' evaluating index not on banks' financials but on client companies' financials instead. The author has in mind a simple set of principles, short enough to fit on a piece of paper, on which to base the banks' new evaluating index.

As of 2016, Japan's Ministry of Finance operates a supervision policy on banks that takes a special focus on banks' financial soundness with respect to the following six indicators:

1. Equity capital (as an early corrective measure)

2. Aggregate risk management

3. Profitability

4. Credit risk

5. Market risk

6. Liquidity risk (based on the Basel Committee on Banking Supervision's international standards)

Profitability is one of the most important indicators, as it is vital to long-term business sustainability. Profitability takes reference to indicators of banks' efficiency such as operating profits, ordinary profits, net profits, return on assets, and return on equity.

However, these six indicators are not directly related to the development of client firms but instead are mere indicators of banks' financial shape. There is a trade-off relationship between banks' short-term performance and client firms' long-term growth. For example, a bank may manipulate the level of interest it charges with respect to client firms' risk profile to prop up its short-term operating results. For the client firm, such action will drain away part of its long-term growth capital. Banks' financial data will only reflect the short-term effect from such decisions without recognizing the trade-off relationship in the bigger picture.

A company's financial data is a huge collection of numerous and various causes and effects. From financial data alone, it is hard to differentiate banks that have grown together with client companies from those that are highly profitable at the sacrifice of client companies. Current major evaluating indices for banks do not directly reflect the idea that banks exist to nurture and develop client companies. This is the central issue of this paper.

In modeling the situation, this paper assumes the following regarding banks' decision making. Banks that see their meaning of existence as the long-term development of client firms will lend to clients at an appropriate interest rate in consideration of each individual risk profile and growth prospect. If the lending decision turns out to be correct, the bank also wins. As mentioned before, banks will raise client firms' growth prospects and reduce client firm risk not only by making the right decision in the first place but also by providing client firms with advice on management and operation, which will in turn benefit the bank's performance in the long run.

Viewed in this light, the performance of client firms can be positioned as a leading indicator for banks' performance. This paper's approach is to return to the basics and design an evaluating index for banks by focusing on the cause-and-effect relationships within the management process (decision making, action, and results), instead of just mechanically breaking down financial results. Client firms' performance as a leading indicator aligns well with banks' meaning of existence (growth and development of client firms). In order to design a process-oriented evaluating index rather than one that focuses purely on results, this paper will base the new evaluating index on client firms' financials instead of banks' financials. Based on this idea, we shall move on with modeling the new index based on client firms' financial data. The new indicator will highly evaluate banks whose client firms have made good progress.

The problem now turns to exactly what it is that we can base our judgement of the trends in client firms' performance on. Are banks making a positive effect on the financials of client firms? Are they contributing to the development of client firms? Unfortunately, the evaluating indices at present do not have the ability to reach these conclusions.

3. WHAT EXACTLY DOES THE NEW INDEX MEASURE?

There are close interactions between financing and the development of firms. To date there has been little research on these interactions from both qualitative (business operation support) and quantitative (financial support) points of view. Based on this assumption, we aim to focus on determining the ability of banks to nurture companies.

Even though the two are in fact tightly correlated, the fact that a bank financed a successful firm does not directly translate to the conclusion that the bank has the ability to nurture companies. It may be the case that the client firm was originally a winning firm and had huge potential for growth and development from the start.

Figure 1 represents the idea that banks' competence lies in the ability to pick winning firms. Here, the bank finds Company X whose track record and potential for growth and development have always been excellent. The bank profits from its being able to identify such companies. On the other hand, if the bank fails in the selection process and picks a losing firm, Company Y, with little potential for growth and development, it will lose part of its assets and its profits.
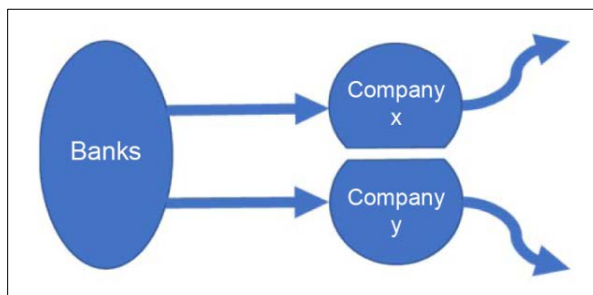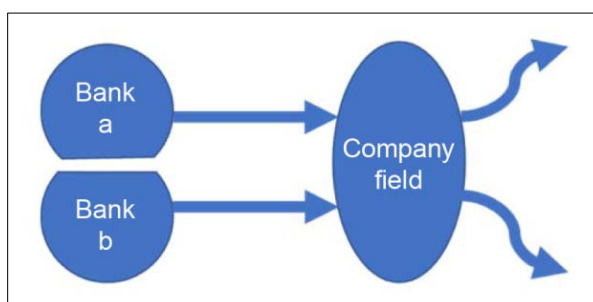
Figure 1: Ability-to-pick Paradigm

Figure 2: Ability-to-nurture Paradigm

Figure 2 represents the idea that depending on the competence of a firm's bank, the firm may either improve its performance or produce worse results. Here, Bank A has the ability to nurture companies. It lends money to a company that seems to have little potential at first glance but nurtures the company and brings it to success. In contrast, Bank B does not have the ability to nurture companies. Bank B lends money just like Bank A but fails to lead client companies to higher levels of success than they exhibited at the start.

Both the case between Company X and its bank and that between Bank A and its client firm had good outcomes. However, the nature of the two cases is different. In the former, the bank was able to pick winning companies from the start. In the latter, the bank worked with its client firm, which was initially not in good shape, and contributed to improving its finances.

In both of these cases, banks' undertakings seem to have been successful. Both the bank and the firm grew. Conventional evaluating indices for banks would evaluate both cases equally, but the new evaluating index will evaluate the latter case more highly. With conventional evaluating indicators firmly in place, the author believes bank regulators may not have their focuses right.

In summary, there are two kinds of banks: one with the ability to pick winners and one with the ability to nurture businesses. Both types perform financing activities, but the contents and the effects of their activities are totally different.

One assumption will be made here. In order to discern the quality of a bank, we will compare the average profit margin on all client firms doing business with the bank against Japan's national average. The bigger the positive divergence, the higher the quality of the bank.

Steps for examining a bank's quality are outlined as follows.

Table 1: Simple Deviation from the National Average

Step 1	
High score	Bank has the ability to pick winning firms and only deals with winning firms as a result
Low score	Bank has no ability to pick winning firms and ends up with bad businesses

It is hard to measure a company's ability to nurture firms with Step 1 alone. There are limitations to yearly comparison of operation results.

Table 2: Comparison of Banks' Picking Ability over a Long Time Frame

Step 2	
Constantly able to maintain a significant positive divergence from the national average in the long term	Has picking ability
Constantly remaining significantly below the national average in the long term	No picking ability

At this point, it is possible to judge a bank's picking ability but not yet the ability to nurture banks.

Table 3: Comparison of a Bank's Nurturing Ability over a Long Time Frame

Step 3	
New index constantly improves over a specified period	Has nurturing ability
New index constantly worsens over a specified period	No nurturing ability

As pointed out in Table 3, even if a firm's financials are below the national average at the start of transactions with its bank, the bank can be judged to have nurturing abilities if the firm's financials improve over time as it does transactions with the bank.

Putting aside the issue of exactly how banks nurture client companies, it has become possible to measure banks' nurturing abilities. Based on the new index, we will eventually see marked improvements in the financials of companies that do business with banks that have nurturing abilities even though those companies start out below the national average. The new index will highly evaluate banks whose client companies are able to make positive shifts in their financials at a comparatively large degree even though their financials may still remain under the national average at the end of the observation period. These are banks with nurturing abilities.

In summary, given one specific indicator of management (e.g., return on equity, return on assets), the new evaluating index is defined as the difference between the client firms' average regarding the specific indicator of management and the national average on the same indicator of management. This new index measures both the position of a bank's client firms relative to the national average and the direction in which client firms are heading while doing business with the particular bank.

4. MODELING THE NEW INDEX[1]

Capital is lent from banks and used in firms. Part of the proceeds then returns to banks in the form of interest payments, which become the bank's sales. This has been the starting point for the idea behind conventional evaluating indices. Certainly, this paper does not aim to negate the idea that banks operate for profit. Instead, this paper focuses on client firms because as explained before, there exists a strong relationship between client firms' operating results and the bank's activities.

For clarity, the new index can be put in mathematical expression as follows.

P represents one predetermined corporate indicator of management. *i* and *j* are numbered tags to each client company. *n* represents the total number of client companies, *m* the national total number of companies, and *t* the fiscal year. *P(i, t)* and *P(j, t)* represent firm *i* and firm *j*'s value on the predetermined corporate indicator of management in fiscal year *t*. *IN(P, t)* represents the evaluating index for fiscal year *t* with regard to the predetermined management index *P*.

$$IN(P,t) = \frac{1}{n}\sum_{i=1}^{n} P(i,t) - \frac{1}{m}\sum_{j=1}^{m} P(j,t) \tag{1}$$

The first term on the right-hand side of (Equation 1) $\frac{1}{n}\sum_{i=1}^{n} P(i,t)$ represents the average for all client firms on a specific indicator of management. The second term on the right-hand side $\frac{1}{m}\sum_{j=1}^{m} P(j,t)$ represents the national average.

Equation 1 compares the average taken on all transaction partners for a bank regarding a specific indicator of management against the national average. This indicates the degree of deviation from the national average. On the other hand, the new index will have a feature that bases its judgement on the degree of improvement in client firms' financials.

In other words, Equation 1 is simply Figure 1 expressed in equation terms. This is the model design whereby it is easy to judge the ability to pick winning firms but not the ability to nurture companies.

To provide an example of usage for such an evaluating index, consider the case when the current ratio is chosen as the management indicator *P*. Banks that score positively are banks that only do business with companies in sound financial health. On the other hand, banks scoring negatively are ones whose transaction partners are not in very stable financial health. However, this will not provide any check on whether the bank has supported its client firms in any way.

Next, let's take a look at Equation 2. Equation 2 calculates the rate of change in *IN(P, t)*. Using this, we can evaluate banks' ability to lead client firms toward higher levels of growth and development.

$$\Delta IN(P,t1,t2) = \frac{IN(P,t2) - IN(P,t1)}{IN(P,t1)} \tag{2}$$

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[1] The author has named this the Intelligence Bank Index (*i* Bank index).

IN(P, t2) represents the evaluation index as of fiscal year *t2* with regard to management indicator *P*. *IN(P, t1)* represents the evaluation index as of fiscal year *t1* with regard to management indicator *P*. Finally △*IN(P, t1, t2)* represents the rate of change in the evaluation index from fiscal year *t1* to fiscal year *t2*.

The higher the rate of change in the evaluation index, the higher the bank's ability to contribute to client firms' financials. In other words, the bank can be said to have nurturing abilities. This provides a quantitative judgement on the degree of banks' capability to nurture and to contribute to the development and growth of companies it does business with.

In practice, we can benchmark average results calculated from a bank's client firms against data provided by third-party institutions.[2] This could be data publicly disclosed by private or public institutions.

The issue of which indicator of management *P* to adopt depends on several factors, such as the bank's market, its customer base, whether the bank mainly operates at the national or regional level, and the major industry segment in its lending portfolio. Banks should be allowed to pick which index to adopt by themselves if such decisions can be deemed appropriate. This applies especially to Japan's credit unions—banking cooperatives that serve a particular region or a specific industry.

What's important is that even though Equation 1 yields a negative deviation from the national average, the bank can still be highly evaluated if Equation 2 yields a positive rate of change. This will be an indicator of the bank's contribution to client businesses—something the bank can be proud of.

5. SUMMARY: USES OF THE NEW EVALUATING INDICATOR

First, it is necessary to recognize the cause-and-effect relationship between banks' activities and the development of client firms. From there, we have to model and explain the relationship with easily recognizable, quantifiable amounts instead of stopping short at focusing on only the bank's part. Indicators that are not clearly quantifiable, such as customer satisfaction or increased usage frequency, should not be used.

Also, evaluation of banks should not stop short at mere comparison with past performance or comparison with rival companies. The author believes this index has a meaningful purpose and should be used along with conventional indicators (ones that only focus on the bank's part). The index is a simple tool that can be used proactively. The problem with conventional indicators is that we can only indirectly grasp banks' contribution to client firms.

Banks and the development of firms are highly interrelated. Measuring the effects that banks have on the development of firms and the usage of those measuring indicators might have always been unclear. Making those issues clear has been the central aim of this paper.

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[2] Indicators of management relevant to firms' growth and development may include growth (net income growth rate), profitability (recurring profit margin), and financial soundness (debt-equity ratio or capital asset ratio). If the appropriateness of such indicators can be guaranteed, the author thinks there is no need to stick to any particular indicator.

Finally, the author expects the new banks' evaluating index to perform the following roles:

1. Act as a monitoring tool when ensuring a bank's quality, i.e., its ability to nurture client firms.

2. Perform impartial evaluation on various types of banks, be it big regional banks or small subregional banks.

3. Detect abnormalities in banks' behavior or a possible sign of a bubble when deviation on the new index becomes either strangely too high or too low.

Although this paper is mainly focused on Japan's case, the author has ambitious hopes to expand the research to cover the case for other countries, particularly the case for countries in lower stages of development, as the author believes the new evaluating index will also work well in such contexts.

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