

**Financial Institutions' Efforts to Support the Business Conditions
of Small and Medium-Sized Firms: Intermediation Services
Utilizing Corporate Information and Customer Networks**

Financial System and Bank Examination Department
Atsushi Ishikawa, Saiki Tsuchiya, and Shinichi Nishioka

January 2013

Financial institutions have been stepping up their efforts to support the business conditions of small and medium-sized firms. They have long supported the business conditions of such firms through financing, but these firms also face a wide range of management challenges other than financing. To resolve the issues faced by these firms, financial institutions have been providing support for the exploration of new markets such as business matching and the business succession of firms with elderly owners. These services have an important feature, in that financial institutions intermediate a range of information to their borrowing firms, utilizing corporate information and customer networks attained through their lending operations. Moreover, some financial institutions have recently begun to enhance the quality of their services by expanding their networks through cooperation with other financial institutions at home and abroad and with related groups.

Introduction

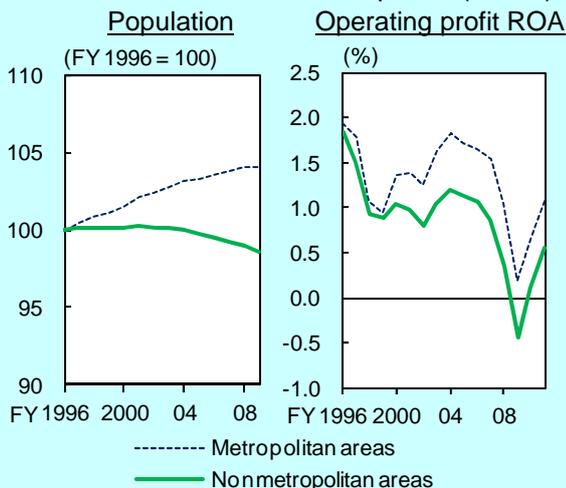
Financial institutions have long supported firms' business conditions through financing. However, Japan's economic growth rate has remained low and demand for funds has been sluggish, especially in nonmetropolitan areas. In this situation, small and medium-sized firms face a range of challenges not limited to financing. Reflecting this, financial institutions have worked on business operations other than lending to help firms to resolve the challenges. For example, they have supported firms that needed to establish business relationships to explore new markets. Some financial institutions have supported firms that encountered difficulty with business succession.

We first discuss management challenges faced by small and medium-sized firms and give examples of financial institutions' efforts to resolve the issues faced by these firms. Next, we indicate that these efforts utilize financial institutions' information production and their customer networks resulting from loan extension. Finally, we show that expansion of financial institutions' networks through cooperation with other financial institutions can increase the scope for supporting the business conditions of small and medium-sized firms.

Management Challenges Faced by Small and Medium-Sized Firms

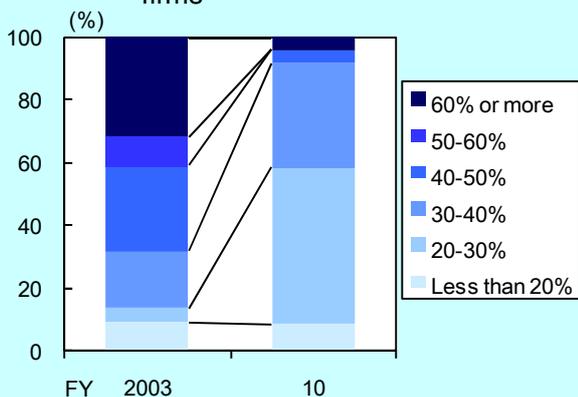
Small and medium-sized firms face severe business conditions. Especially in nonmetropolitan areas where the population decrease and aging of society have been progressing, the economic growth rate remains low and the profitability of small and medium-sized firms has declined (Chart 1). Progress in overseas business expansion among many large firms has also led to a weakening of the customer bases of small and medium-sized firms. At small and medium-sized firms, the share of sales to large firms has declined, and the business relationship between large firms and small and medium-sized firms, previously stable, has started to weaken (Chart 2).

[Chart 1] Business conditions of small and medium-sized enterprises (SMEs)^{1,2}



Notes: 1. Metropolitan areas include the Kanto and Kinki regions. Other regions are nonmetropolitan areas.
2. Operating profit ROA in the right chart is the median.
Sources: CRD; Cabinet Office, "Prefectural accounts."

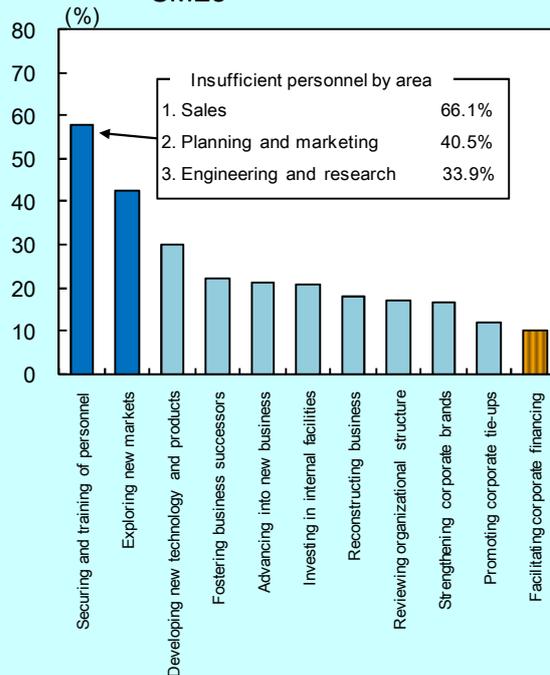
[Chart 2] Share of sales from SMEs to large firms¹



Note: 1. Based on the number of industries classified as manufacturing in major groups.
Source: Small and Medium Enterprise Agency, "Basic survey on small and medium enterprises."

In this situation, a wide range of management challenges confronts small and medium-sized firms, and among them the need to strengthen sales capability is recognized as one important issue that should be addressed (Chart 3).¹ In a survey of small and medium-sized firms, these firms cited the securing of sufficient salespersons and exploring of new markets as top-priority tasks. Many firms also mentioned fostering successors as a challenge, reflecting the aging of owners. Facilitating of financing was considered to be a low-priority management challenge. This is because demand for funds has been sluggish amid the low economic growth rate, especially in nonmetropolitan areas.

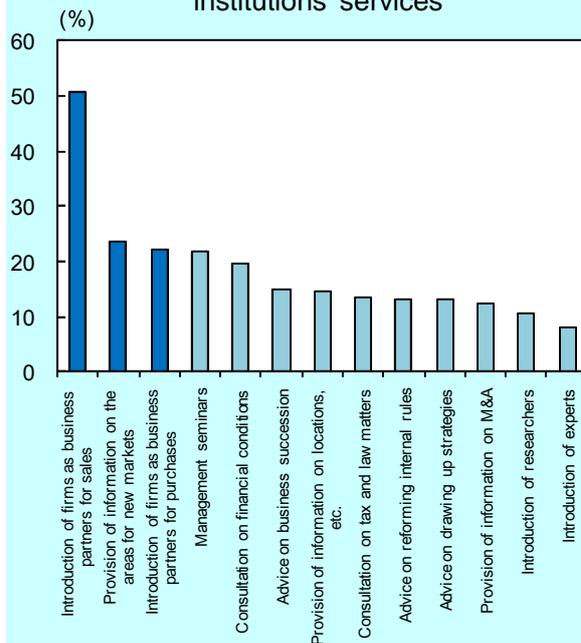
[Chart 3] Management challenges faced by SMEs¹



Note: 1. The data are as of 2008. Multiple answers are included.
Source: Tokyo Chamber of Commerce and Industry, "Surveys on SMEs' management challenges."

Another survey of firms' demand for financial institutions' services showed that, reflecting the aforementioned management challenges, many firms cited exploration of business partners for sales and purchasing and provision of information regarding the areas for new markets as useful services (Chart 4). Reflecting such firms' needs, financial institutions have been working to resolve issues facing borrowing firms by drawing on their own expertise.

[Chart 4] Firms' demand for financial institutions' services¹

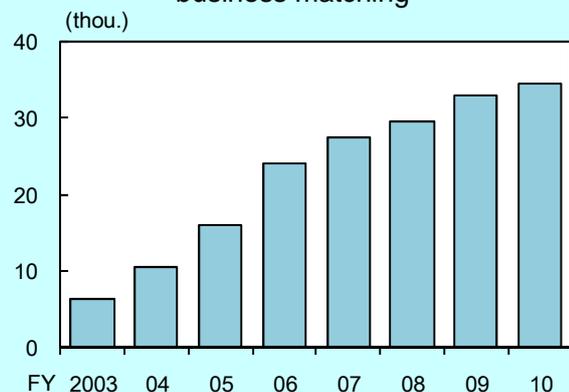


Note: 1. The data are as of 2011. Multiple answers are included.
Source: Mizuho Research Institute, "Research on enhancement of financial functioning in nonmetropolitan areas."

Financial Institutions' Intermediation Services Aimed at Resolving Issues

A typical example of financial institutions' efforts to tackle the issues faced by borrowing firms is supporting the firms' exploration of new markets.² Specifically, financial institutions conduct intermediation services by which they introduce borrowing firms to other borrowing firms seeking to establish new business relationships. This is called business matching, and in some cases financial institutions host business meetings for many borrowing firms and the institutions directly negotiate with individual firms. The number of contracts made via business matching has increased gradually, exceeding 30,000 in fiscal 2010 for regional financial institutions taken as a whole (Chart 5).

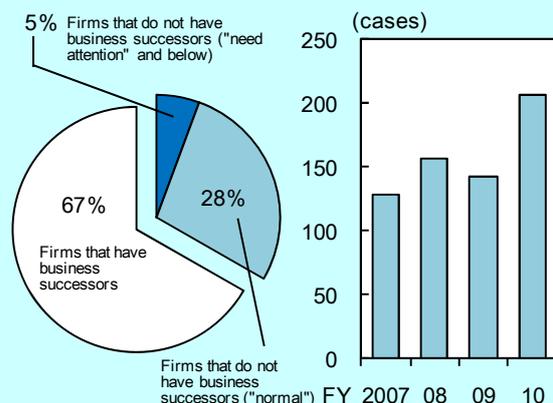
[Chart 5] Number of contracts made via business matching^{1,2}



Notes: 1. Regional banks, *shinkin* banks, and credit unions are counted.
2. The figures until fiscal 2009 are sourced from the Financial Services Agency. The figures in fiscal 2010 are calculated by adding up the figures released by each association.
Sources: Financial Services Agency; Regional Banks Association of Japan; Second Association of Regional Banks; National Association of Shinkin Banks; Community Bank Shinyo Kumiai.

Moreover, financial institutions have been conducting services to support business succession, reflecting the aging of firms' owners. In Japan, an increasing number of firms lack successors, despite the aging of owners.³ Many of these firms are top rated in their sectors, but many such top-rated firms have been forced to close due to the lack of successors (the left-hand side of Chart 6). Reflecting this, some financial institutions have started supporting business succession through, for example, mergers and acquisitions, by finding borrowing firms that are strongly interested in the business areas of firms without successors (the right-hand side of Chart 6). Some financial institutions have recently been working on personnel matching in the case of reemployment, for example.

[Chart 6] Support of business succession^{1,2}
Share of SMEs without successors M&A for business succession handled by financial institutions



Notes: 1. In the left chart, SMEs with owners over 60 years old are counted. The data are as of fiscal 2010.
2. In the right chart, regional banks, *shinkin* banks, and credit unions are counted. The figure for fiscal 2010 is calculated by the BOJ.
Sources: CRD; Financial Services Agency; Second Association of Regional Banks; National Association of Shinkin Banks; Community Bank Shinyo Kumiai; BOJ.

Such series of services have an important feature, in that financial institutions provide a range of information to borrowing firms to revitalize business transactions among these firms. As will be discussed in the next section, these services utilize financial institutions' expertise attained through lending operations.

Financial Institutions' Information Production and Customer Networks

Financial institutions have accumulated information on borrowing firms through lending operations. At the same time, they have established large customer networks, especially with the borrowing firms. In this section, we explain the financial institutions' accumulation of information and the characteristics of their customer networks, and then examine how these points enable the financial institutions to provide a range of intermediation services.

Accumulation of information through information production

Financial institutions have accumulated a range of information about borrowing firms to grasp their business conditions through lending activity over the years. The series of activity aimed at grasping the business conditions is called information production. Information production is not limited to obtaining information based on objective data such as borrowing firms' balance sheets and management plans. It also includes obtaining information other than numerical data that is indispensable in grasping the business

conditions of borrowing firms, ranging from management policy and the disposition of managers to the discipline of employees.

Financial institutions have a wide range of information, but it seems that the type of information that they focus on has changed over the years (Chart 7). Up until the 1980s, when Japan's economic growth rate was high and demand for funds was strong, financial institutions focused on examining borrowing firms' purpose for the funds, the size of demand for the funds, and the quality of collateral when conducting credit screening on firms, allocating appropriate amount of funds, and securing collateral.⁴ From the 1990s, when the economic growth rate declined and nonperforming loans increased, the focus of information production gradually shifted to strengthening credit risk management including risk assessment after loan extension, in addition to credit screening and securing of collateral at the time of loan extension. During this period, there was active discussion on how borrowing firms' creditworthiness should be gauged by using various data including the financial data.⁵

In recent years, increasing attention has been paid to information that leads to business expansion of borrowing firms and that can be used to assess the growth potential of new projects.⁶ This is because, as mentioned earlier, small and medium-sized firms consider strengthening their sales capability to be their top-priority task. Reflecting this change in the environment, information sharing has been progressing at financial institutions. Corporate information that once was kept only by staff in the corporate banking division at the head office and branches has gradually begun to be shared by divisions in charge of credit risk management. Furthermore, some financial institutions have recently begun to share a wide range of information each institution to the extent possible, giving due consideration to ensuring information security. Their

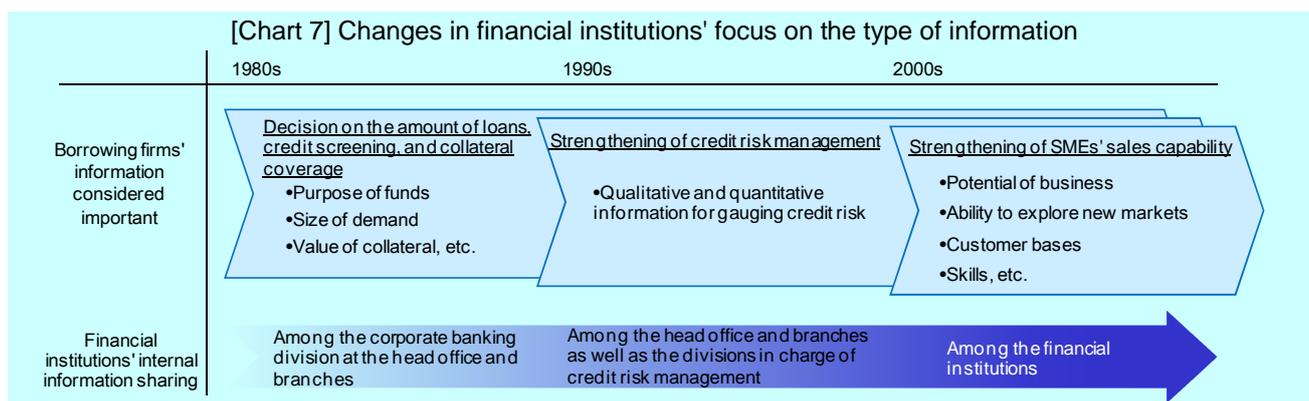
objective is to share the management challenges faced by borrowing firms and proceed swiftly to address issues by exchanging information that contributes to improving business conditions between divisions and branches.

Financial institutions have accumulated an enormous amount of information about their borrowing firms. The borrowing firms' business conditions may thus be improved if financial institutions establish a system that enables an efficient use of such information, in addition to the use of information technology, and utilize the system for various intermediation services. To achieve this, the utilization of customer networks is also indispensable, as described below.

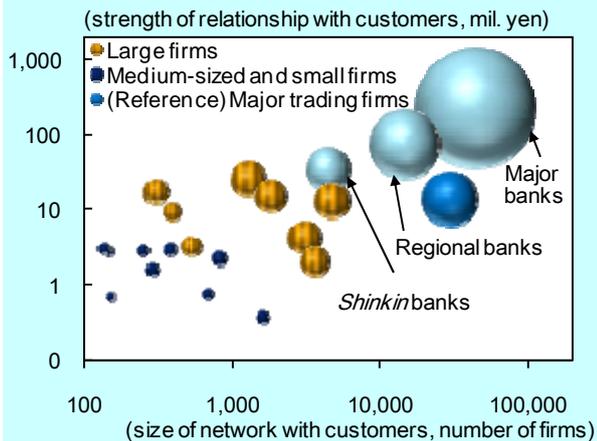
Financial institutions' customer networks

Financial institutions have business relationships with many firms through lending activity, and their customer networks are large compared with other industries. The number of clients for financial institutions is quite large compared with other industries: more than 4,000 at *shinkin* banks on average and tens of thousands at major banks and regional banks (Chart 8). Financial institutions' relationships with clients are comparable with other industries, as evidenced by a considerable amount of financial transactions per client.

Transaction networks of small and medium-sized firms are small, but there is room to substantially expand each firm's network if these firms can incorporate a large number of financial institutions' borrowing firms into their networks. For example, it has been estimated that a firm in a prefecture must go through 4.7 links on average in its transaction network to find potential business partners in the prefecture (Chart 9; see Box for the calculation method and data). However, if the firm used an individual financial institution's customer network, the number of links would shorten to 3.7 on average.



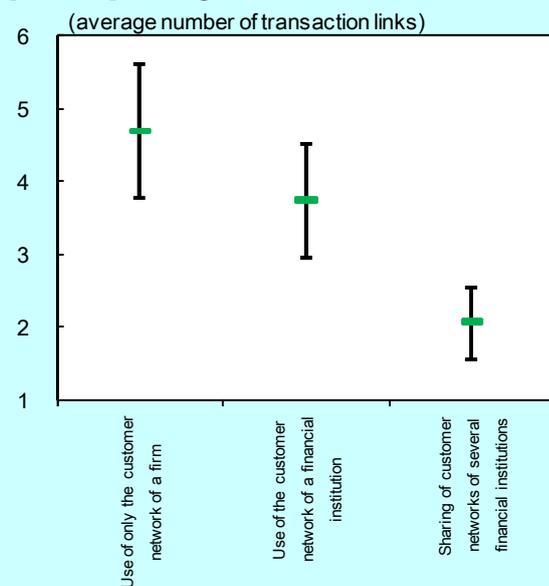
[Chart 8] Customer networks of firms and financial institutions^{1,2,3}



Notes: 1. Customers are business partners of sales and purchasing for firms and borrowers for financial institutions.
 2. The "strength of relationship with customers" (the vertical axis) is the average amount of credit per customer. The "size of networks with customers" (the horizontal axis) is the average number of customers per firm or financial institution. The size of circles indicates the average amount of credit per firm or financial institution.
 3. Large firms have capital of more than 1 billion yen, and medium-sized and small firms have capital of less than 1 billion yen. Major trading firms that are large firms and wholesalers have more than 10,000 customers.

Sources: Teikoku Databank, "SPECIA"; BOJ.

[Chart 9] Average number of transaction links¹

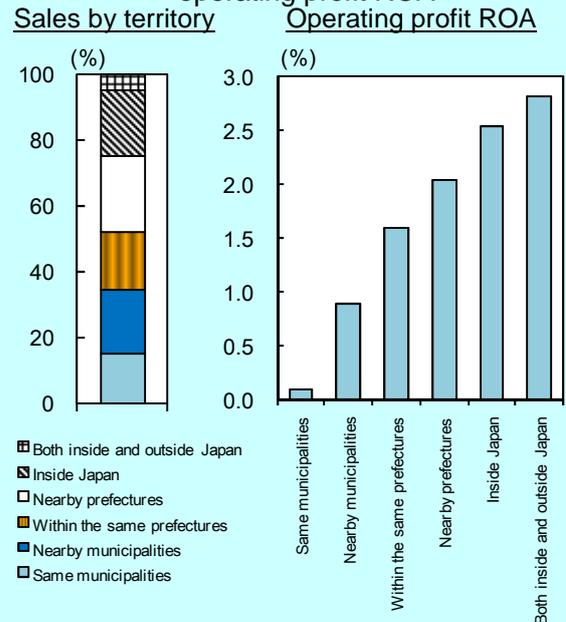


Note: 1. Averages. This chart shows the 10th-90th percentile range.
 Source: Teikoku Databank, "SPECIA."

Furthermore, if all the networks of financial institutions in the prefecture were shared, the number of links would be shortened considerably, to 2.1. This implies that, when financial institutions expand their customer networks by cooperating with each other, the process of finding business partners among firms grows more efficient. This analysis is limited to the networks within the prefecture, but the effects of cooperation among financial institutions would increase further if the networks expanded across prefectures and regions.

Buyers of many small and medium-sized firms' products are located within the same prefectures or nearby municipalities, which suggests that their small sales territory is one factor behind low profitability (Chart 10). Therefore, financial institutions' efforts to support market expansion for borrowing firms by utilizing the institutions' customer networks could help enhance the profitability of small and medium-sized firms.

[Chart 10] SMEs' sales by territory and operating profit ROA



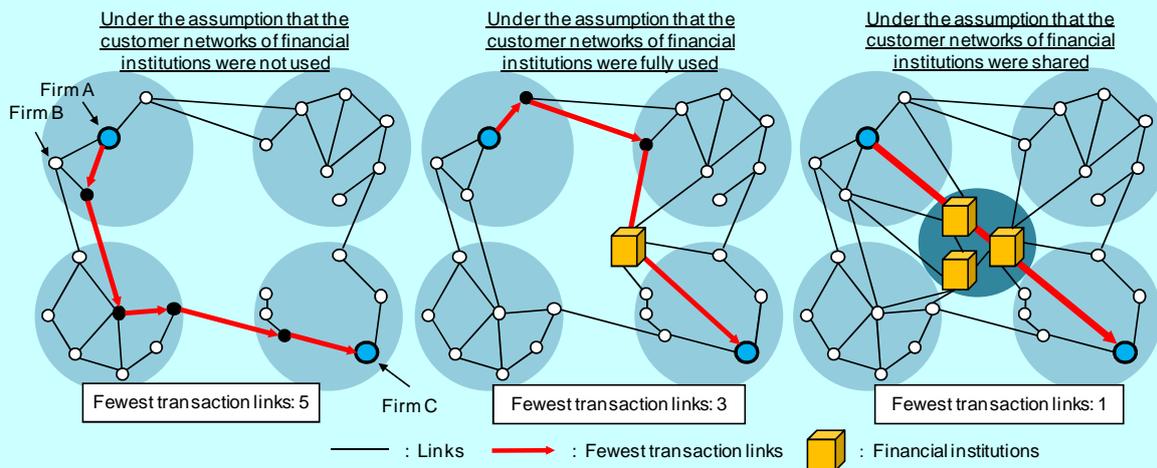
Sources: Small and Medium Enterprise Agency, "Basic survey on small and medium enterprises"; BOJ.

Customer networks for *shinkin* banks, whose business areas are limited, tend to be relatively small. However, the small business areas, as seen in the fact that the numbers of clients per employee and per branch of *shinkin* banks are smaller than those for regional banks, enable *shinkin* banks to establish close relationships with their clients (Chart 11). In order to make use of detailed information on borrowing firms and further enhance the quality of intermediation services, it is therefore important for *shinkin* banks to expand their networks by cooperating with other financial institutions and related groups. Based on this viewpoint, some financial institutions have started to enhance the efficacy of intermediation services by cooperating with other financial institutions.

[Box] Analysis of Networks of Firms and Financial Institutions

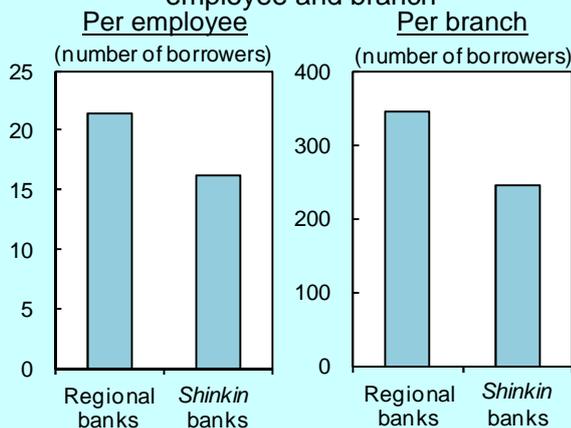
Chart 9 shows the fewest transaction links that a firm must go through via transaction networks to form business relationships with other firms in the same prefecture. The process may be conceptualized using the chart shown below. There is one transaction link between Firm A and Firm B. If Firm A wants to have a business connection with Firm C, it needs to go through several links via other firms. In the left-hand side of the chart, Firm A must go through at least five links. If Firm A uses a financial institution's customer network as shown in the middle of the chart, however, the process would be shortened to three links, making it easier for Firm A to form a business connection with Firm C. This is because financial institutions have a greater number of business partners than individual firms. The right-hand side of the chart shows the case where a few banks cooperate with each other. In this case, Firm A and Firm C are directly connected. In Chart 9, the number of transaction links is calculated based on the actual transaction data on 1,503 firms in one prefecture. The chart shows the average numbers of transaction links among firms located in the prefecture.⁷

[Box Chart] Relation between firms through transaction networks¹



Note: 1. Circles indicate firms. Black dots indicate firms that a firm must have business relationships with to find a customer through the fewest links.

[Chart 11] Number of borrowing firms per employee and branch^{1,2}



Notes: 1. Borrowing firms only refer to SMEs.
2. The data are as of end-March 2012.
Source: BOJ.

Efforts to Expand Customer Networks by Strengthening Business Ties

Cooperation among financial institutions in terms of provision of intermediation services has started to expand beyond regions and industries (Chart 12).⁸ For example, a few financial institutions located in nearby prefectures have cooperated in business matching, and a few banks located far from each other, such as in the Kanto and Kinki regions, have co-hosted business meetings by introducing their borrowing firms. In addition, credit unions have established a common network among industries to support business matching of borrowing firms through the Internet.

Cooperation is not limited to financial institutions, and in some cases financial institutions have established business relationships with related groups and organizations. For instance, in a case where financial institutions participated in cooperation among the academia, industries, and the government, financial institutions informed universities and research institutes of borrowing firms' needs for product development and responded to the firms' needs by utilizing the skills of the universities and

research institutes. Such cooperation has been observed in the medical care, environment, and food industries, and in some cases several financial institutions cooperated with each other and venture capital firms were involved.

[Chart 12] Expansion of customer networks through cooperation

Range of cooperation	Examples
With other financial institutions	<ul style="list-style-type: none"> Strengthening of business succession and mergers and acquisitions by sharing information on borrowing firms with different firm sizes among regional financial institutions. Holding of business meetings by regional financial institutions located in various regions such as the Kanto and Kinki regions by introducing their borrowing firms. Provision by the Community Bank Shinyo Kumiai of a system in which borrowing firms in Japan can share information on their projects via the online network.
With related groups and organizations	<ul style="list-style-type: none"> Informing of universities and research institutes about borrowing firms' needs for product development, and the subsequent response to the firms' needs by utilizing the skills of the universities and research institutes. Introduction of personnel who are experts in product branding and/or overseas operations in response to firms' needs, by utilizing personnel information provided by public institutions.
With banks and governments overseas	<ul style="list-style-type: none"> Provision of a range of information to borrowing firms about the countries to which the firms wish to expand their business, and, in cooperation with local banks in the countries, opening of accounts for and/or conduct of lending operations to the firms via the local banks. Promotion of business transactions with local firms in the countries and holding of business meetings by gathering domestic and overseas firms, in cooperation with local banks and local municipal governments in the countries.

Moreover, to support overseas business expansion of borrowing firms, some regional financial institutions have begun to cooperate with banks and governments overseas. For example, there are cases where financial institutions provided a range of information to borrowing firms about the countries to which the firms wished to expand their business and where financial institutions opened accounts for firms and conducted operations for lending to and accepting deposits from them via local banks, in cooperation with local banks in Asia. Furthermore, some financial institutions, in cooperation with local banks and local municipal governments in the countries, promoted business transactions between borrowing firms and local firms and some institutions held business meetings by introducing domestic and overseas firms.

Conclusion

Financial institutions have been making a range of efforts to tackle management challenges faced by small and medium-sized firms, including the provision of support for market expansion, while utilizing their expertise in corporate information and customer networks. The efficacy of supporting the business conditions of small and medium-sized firms might increase in the near future, if financial institutions can enhance their services by intensifying cooperation with financial institutions at home and abroad and with related groups. If firms' business conditions improve through such efforts, financial institutions are expected to benefit from the improvement in terms of

exploring potential demand for funds, increasing business opportunities, and receiving adequate commissions, for example. The improvement might also strengthen financial institutions' profitability by enhancing the quality of loans. Since the profitability of many financial institutions has been declining, it is important for them to provide services that meet borrowing firms' needs, in addition to the existing lending activity.

¹ Many small and medium-sized firms that are located in nonmetropolitan areas tend to have small business areas compared with firms in metropolitan areas, and therefore it is all the more important for them to tackle such management challenges.

² The Banking Act stipulates that banks may conduct other businesses incidental to banking business, in addition to conducting operations unique to financial institutions such as acceptance of deposits and installment savings as well as loan of funds. Furthermore, the Financial Services Agency's guidelines for supervision state that other businesses identical to banking business may include business matching and mergers and acquisitions if these businesses aim to provide consultation and support to borrowing firms.

³ For details, see the October 2012 issue of the *Financial System Report*.

⁴ For details on banks' information production and lending activity before the 1980s, see Aoki, M. and Hugh T. Patrick, *The Japanese Main Bank System: Its Relevance for Developing and Transforming Economies*, Oxford University Press, 1994.

⁵ Progress in international discussions on enhancement of risk management played a part in increasing the importance of strengthening credit risk management. For more details, see Bank of Japan (Bank Supervision Department), "Utilization of Financial Institutions' Self-Assessment in Enhancing Credit Risk Management," February 1998.

⁶ Financial institutions have sought to enhance their assessment by fostering staff with technical knowledge in specific areas and cooperating with other institutions with expertise. It is a major challenge for them to proceed with such efforts to facilitate loan extension to areas with growth potential. For details, see Small and Medium Enterprise Agency, *2009 White Paper on Small and Medium Enterprises in Japan*.

⁷ The average figure for transaction links is an indicator that shows the degree of proximity in the analysis of network.

⁸ The examples shown in Chart 12 are based on various interviews by the Financial Services Agency and other institutions.

The authors would like to thank Etsuko Kimura for her assistance.

Bank of Japan Review is published by the Bank of Japan to explain recent economic and financial topics for a wide range of readers. This report, 2013-E-1, is a translation of the original Japanese version, 2012-J-15, published in November 2012. The views expressed in the Review are those of the authors and do not necessarily represent those of the Bank of Japan. If you have comments or questions, please contact Shinichi Nishioka, Financial System and Bank Examination Department (E-mail: shinichi.nishioka@boj.or.jp). Bank of Japan Review and Bank of Japan Working Paper can be obtained through the Bank of Japan's Web site (<http://www.boj.or.jp/en>).