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Corporate Finance and Governance: Europe-Japan Comparisons

The Efficiency of Bank Mergers

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Did Efficiency Improve? : Megamergers in the Japanese Banking Sector

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Bank consolidations of G10 countries

Number of mergers in banking sector in G10 countries

	1990	1991	1992	1993	1994	1995
All countries	199	311	381	461	525	532
United States	131	152	243	326	365	390
All European countries	51	135	131	110	147	116
Japan	5	8	2	6	1	4

	1996	1997	1998	1999	total
All countries	480	534	533	488	4444
United States	334	374	348	248	2911
All European countries	109	110	148	169	1226
Japan	9	14	10	49	108

Source: Group of ten, report on consolidation in the financial sector

Bank consolidations of G10 countries

G10 report finds the following:

- (Patterns) a high level of M&A activity in the 1990s; firms in the same segment involved (domestic &banking); The number of banks decreased.

- (Causes) cost savings and revenue enhancements;

⇔diverse domestic regulatory regimes and culture differences as factors discouraging consolidation.

Bank consolidations of G10 countries

- (Efficiency) Only relatively small banks became more efficient (basic indicators such as ROA).

- Barriers to entry decreased with the deregulation and globalization of financial markets.

- Consolidation is one of the most remarkable contemporary features.

Number of banks: three countries' comparison

Table 2 Number of Banks

	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Japan	147	144	143	141	140	140	139	136	136	130	-
U.S.	14406	12195	11791	11348	10867	10359	9854	9466	9065	8698	8505
U.K.	346	507	491	469	462	458	484	467	468	448	418

Source: "Group of Ten Report on Consolidation in the Financial Sector", BIS January2001

Table 2: A comparison of number of banks

- The US:

14,406 (1980) → 8,505 (1999) More than 40 % declined.

- The UK:

507 (1990) → 418 (1999) 18 % reduction.

Let's see the cases of Asian countries…

Number of banks: Korea

Number of banks

Korea	1980	1990	1995	1997	1998	1999	2000	2001	2002	2003
Nationwide banks	5	11	15	16	12	11	11	9	8	8
Regional banks	10	10	10	10	8	6	6	6	6	6
Specialized banks	7	7	7	7	6	6	5	5	5	5
Sum	22	28	32	33	26	23	22	20	19	19

Source: The Korea Federation of Banks and Financial Supervisory Service, Harada (2005b)

Number of banks: Indonesia

Figure 1 The number of banks

	1996	1998	2000	2001	2002	2003
State banks	7	7	5	5	5	5
Regional development banks	27	27	26	26	26	26
Domestic private banks*	164	130	81	80	76	76
Foreign banks/Joint venture bank	41	44	39	34	34	31
Total number of banks	239	208	151	145	141	138

＊Domestic private banks include Private National Forex Banks and Private National Non-Forex Bank

Source：Bank Indonesia, *Annual Report* 1998, 2000, 2003

Facts and Literature

- There is no perfect measure for examining bank consolidation. However, research in the efficiency analysis of financial institutions is becoming popular.

- Nonparametric frontier analysis such as Data Envelope Analysis is often used.

- Berger and Humphrey (1997) survey 130 papers which examine efficiency of financial institutions.

This paper

- Looks at cost efficiency implications of mergers.

- There is a lack of empirical studies.

  Mergers of financial institutions have an impact on the market but few empirical studies examine the effect.

Summary of findings

- Japanese city banks' technical efficiency was evaluated, using a sample of 1999 to 2003.

- Average technical efficiency scores worsened in the late 1990s.
- Large banks exhibited higher scores.
- These findings supported hypotheses.
- Banks acted with short-term horizons, not with long-term perspective.

Two hypotheses

- Consolidation of a healthy bank and an unhealthy bank would not create a healthy bank.

- Consolidation between two weak banks would not strengthen them.

Number of banks in Japan

Number of banks

Japan	FY1985	FY1990	FY1995	FY1998	FY1999	FY2000	FY2001	FY2002
City banks	13	12	11	9	9	9	7	6
Long-term Credit banks	3	3	3	1	2	2	3	2
Trust banks	7	7	7	7	7	7	5	5
Regional banks	64	64	64	64	64	64	64	64
The second regional banks	69	68	65	57	55	54	54	53
Sum	156	154	150	138	137	136	133	130

Source: Japanese Bankers Association, Bank of Japan

Social structure

- Financial institutions in Japan were protected by regulations such as the so-called “convoy system”.

- The original Japanese Antimonopoly Law enacted in 1947 was amended in 1997. Under the new law, holding company is permitted.

- Along with the amendment of the Banking Law in 1998, Japanese banks could establish holding companies and become subsidiaries of them.

Motives for consolidation

- 10 leading banks merged to create five mega banks: Mizuho FG, UFJ FG, Sumitomo Mitsui FG, Mitsubishi Tokyo FG, and Resona Holdings (as of 2004).

- Some merger cases were very skeptical in terms of motives.

- “Too big to fail” might be one motivation.

Data Envelope Analysis (DEA)

- Two types of approach for estimating frontier function: parametric and nonparametric.

- initially an idea from Farrell (1957), is nonparametric approach that solves linear programming problems.

- provides a piecewise linear frontier by enveloping the data used in the analysis.

- “1” is the most efficient.

The Data

- DEA requires inputs and outputs data.

- Consolidated statements for each bank are used for 1998 to 2003.

- New accounting rules enacted in March 1999 require consolidated accounting with market value accounting of financial assets.

- More consistent with the International Accounting Standards.

Inputs and Outputs

- Nonperforming loan and ever-greening lending are taken into consideration:

Y1 = Interest income + fees and commissions – reserve for possible loan losses

Y2 = Y1 + other business income

X1 = Number of employees

X2 = Shareholder's equity

X3 = Total movables and real estate

X4 = General and administrative expenses

X5 = Other ordinary expenses

Estimation Results

- The average efficiency scores were quite low (only 0.784) in 1998. They did not improve much in 1999. Japanese banks' scores worsened.

- The most inefficient banks in 1998 and 1999 were Daiwa Bank and Asahi Bank.

- Tokai Bank, a healthier city bank with fewer nonperforming loans, had 1 before consolidation with UFJ. But after the merger, it turned out 0.354 in 2001.

Summary of results

- A consolidation of a healthy bank and an unhealthy bank did not create a healthy bank (Tokai and Sanwa (UFJ)).

- Consolidation of two weak banks did not result in a strong bank (Daiwa and Asahi).

- Consolidation itself did not yield performance improvement (Sakura and Sumitomo).

- Banks might have sold financial products to dress up income for year-end settlement of the accounts.

Remaining Issues

- Merger accounting

"pooling-of-interest" vs. "purchase accounting"

- Deferred tax assets
- Provisioning

There might be reasonable incentive to utilize paper profits given by a consolidation to cover up unrealized losses (ex. Sumitomo Mitsui Bank and Wakashio Bank)