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Impact of policy changes on the efficiency and returns-to-scale of Japanese financial institutions: An evaluation

A.S.M. Sohel Azad[a,*], Suzuki Yasushi[b], Victor Fang[a,1], Amirul Ahsan[a,2]

[a] School of Accounting, Economics and Finance, Faculty of Business and Law, Deakin University, 221 Burwood Highway, Burwood, VIC 3125, Australia
[b] College of International Management, Graduate School of Management, Ritsumeikan Asia Pacific University, 1-1 Jumonjibaru, Beppu, Oita 874-8577, Japan

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ABSTRACT

This paper examines the impact of FSA's (Financial Services Agency) recent policy changes on the efficiency and returns-to-scale (RTS) of Japanese financial institutions including banks, securities companies and bank holding companies. Three kinds of efficiency are investigated namely, technical efficiency (TE), pure technical efficiency (PTE) and scale efficiency (SE) using the non-parametric methodology named data envelopment analysis (DEA). The DEA analysis shows a substantial improvement in the overall efficiency of Japanese banks, *albeit* a significant difference of efficiency scores between the major/city banks and the regional banks. Results are robust to alternative specifications of efficiency and scale changes.

* Corresponding author. Tel.: +61 392446873; fax: +61 392446283.
E-mail addresses: s.azad@deakin.edu.au (A.S.M.S. Azad), szkya@apu.ac.jp (S. Yasushi), v.fang@deakin.edu.au (V. Fang), amirul.ahsan@deakin.edu.au (A. Ahsan).

1 Tel.: +61 392446919; fax: +61 392446283.

2 Tel.: +61 392446571; fax: +61 392446283.

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1. Introduction

The corporate Japan is historically dominated by the bank-based financial system. However, the prolonged trouble of the financial sector followed by burst of bubble challenged the bank-based financial system and its whole financial industry until recently. Because of the predominance of the financial institutions, the financial sector's revival is considered crucial for its economic growth. The Financial Services Agency (FSA) of Japan recommended numerous policy measures toward the revival of this sector. Between 2001 and 2002, several policies were suggested by the FSA. The period has also undergone a strong wave of the mergers and acquisitions. However, the existing literature does not shed light on the effectiveness of those measures on the efficiency of Japanese financial institutions. This paper fills that gap by looking into the impact of those measures and policy changes on different proxies of efficiency and returns-to-scale.

Of the several policies adopted, the noteworthy are as follows. In June 2001, the FSA suggested two major policies: (i) drastic resolution of the non-performing loans (NPLs) and (ii) structural reforms in the securities markets. The government also passed legislation in 1998 that set April 2002 as the beginning of a changed relationship between Postal Saving System (PSS) and the Fiscal Investment and Loan Program (FILP) with a view to enhance the financial intermediation and strengthen the financial stability. In October 2002, the FSA announced more concrete policies aiming to revive the financial industry as well as the corporate sector because of their historical interdependences. Those policies focused on a wide range of areas including the tightening of loan/asset assessment, enhancing capital adequacy and strengthening governance. Policies were also suggested for strengthening small and medium size enterprises (SMEs) so that they are able to repay back their loans to banks that suffered from valuation losses. The policies mainly emphasized the monitoring, assessment, resolution and disclosure of the real picture of the NPLs. Since 2002, the FSA has begun to issue the "Business Improvement Administrative Order" to those financial institutions which have failed to support the revival of SMEs. In December 2002, the Deposit Insurance Law and other related laws were also amended. In June 2003, the government opted to provide financial support to solve the capital adequacy problem of the ailing Resona Bank, which was temporarily nationalized in November 2003. In March 2004, the UFJ, one of the four mega banks, recorded a huge loss. As a consequence, UFJ was merged with Tokyo Mitsubishi Bank in October 2005. Since December 2004, Japan's financial system has entered into a new forward-looking phase aiming at establishing a more stable financial system for the future. In addition, the FSA has implemented the "Program for Financial Revival" and other measures to tackle the non-performing loans problem. This new phase changed the attitude of Japan's financial administration by putting emphasis on "financial system vitality" from a previous emphasis on "financial system stability". Additionally, following the increased usage of IT services in the financial industry, the Regional Banks Association of Japan implemented a credit risk assessment tool namely, credit risk information total system (or CRITS). The CRITS, which was initially implemented in December 2004, has now been updated to the latest version in April 2010. As of January 1, 2012, the tool is found to be used by all of its 64 member banks as well as other regional banks, financial institutions, and nonfinancial companies. The purpose of this large-scale IT based credit risk management model is to improve the capacity to manage the credit risks associated with the loans to SMEs (small and medium enterprises).

The recent period has also undergone a strong wave of the mergers and acquisitions. The trend of consolidation started in the late of the last century and continued until recently. However, in most cases, the mergers were not aimed at increasing the competitiveness but were the products of adversity including take-over battles, adverse mergers and acquisitions. For instance, the consolidation of UFJ and MTFG was hindered by UFJ's prior contract to sell its trust bank to Sumitomo but finally UFJ and MTFG formed the largest bank both in Japan and in the world in 2005. Table 1 summarizes the merger wave and the resulting new banking group.

The financial consolidation in Japan has been due to several reasons. These include: (i) the pressure from the regulatory authorities (e.g., FSA) to acquire the failing banks by major banks after the bubble burst (ii) the value maximizing motives to increase the market share – both retail and corporate banking (Berger et al., 1999) (iii) non-value maximizing motives e.g. enhancing managerial status and executive compensation (Berger et al., 1999) (iv) the impact of external competition and deregulation