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August 2010

Online at <https://mpra.ub.uni-muenchen.de/24332/>
MPRA Paper No. 24332, posted 11 Aug 2010 00:49 UTC

Does the Presence of the Japan Post Bank in a Regional Financial Market Affect the Deposit Interest Rates of Credit Associations?

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ABSTRACT

The former Minister Shizuka Kamei, who was appointed as the Minister for Financial Services during the premiership of Yukio Hatoyama, pushed reforms to change the previous goal of completely privatizing the postal services. The basic policy is that participation by the government in the businesses of postal savings will be practically maintained and the ceiling of postal savings will be raised from 10,000,000 yen to 20,000,000 yen. Therefore, in the present study we analyzed whether credit associations in a region whose share of postal savings is larger are being pressured to set higher deposit interest rates due to the presence of postal savings. The results showed that the presence of postal savings in a region does not pressure credit associations to set higher deposit interest rates, at least under the present conditions. It can thus be concluded that if a set of reforms is carried out which maintains the participation of the government in the Japan Post Bank, the ceiling of postal savings should be frozen at the present level.

JEL Classification: G21

Keywords: postal savings, credit associations, deposit interest rates, privatization of postal services, the ceiling of postal savings

1. Introduction

Prime Minister Junichiro Koizumi (Liberal Democratic Party) assumed the premiership in 2001 and, under the slogan “Structural reforms without sacred cows,” proceeded to privatize the postal services, which until then had been administered by the Japanese government. As a first step in this privatization, services at the window, mail delivery, postal savings and postal insurance, all of which had been run by the Japan Postal Services Public Corporation, were separately assigned as the functions of independent corporations, and a pure holding company (Japan Post Holdings) that held all four corporations as subsidiaries was established by the government. In order to completely privatize these functions, a dual circulation period was scheduled for the end of March 2017. During this period, all of the stocks issued by the Japan Post Bank (the postal savings corporation) and Japan Post Insurance (the postal insurance corporation), all of which had been held by Japan Post Holdings since their issue, would be sold to the market.

However, the plan to privatize the postal services was completely reviewed under the former Prime Minister Yukio Hatoyama (Minshuto: the Democratic Party of Japan), who assumed the premiership in 2009. The former Minister Shizuka Kamei, who was appointed as the Minister for Financial Services during the premiership of Yukio Hatoyama, pushed reforms to change the previous goal of completely privatizing the postal services, and a bill incorporating these changes was passed at a cabinet meeting in April 2010.¹ The basic policy was that the government would continue to hold over one-third of the stocks issued by Japan Post Holdings, and Japan Post Holdings could continue to hold over one-third of the stocks issued by Japan Post Bank as well as one-third of those issued by Japan Post Insurance. That is, participation by the government in the businesses of postal savings and postal insurance would be practically remained. In addition, after a heated discussion at an unofficial cabinet meeting in March 2010, it was agreed that the maximum amount that depositors can deposit to postal savings would be raised from 10,000,000 yen to 20,000,000 yen.

Under the rules of the Japanese deposit insurance system, deposits (except deposits for settlement) of over 10,000,000 yen are not always protected when a private financial institution fails. Therefore, if the participation by the government in the Japan Post Bank is to be maintained, and if the maximum amount that depositors can deposit there will be raised to 20,000,000 yen, then depositors will be able to deposit 10,000,000 more yen to their postal savings accounts, and the government will tacitly agree to guarantee these funds, thereby creating a lower credit risk for individuals depositing in the Japan Post Bank than for those depositing in private financial

¹ However, though this bill was passed in the House of Representatives, the conclusion of it was shelved and it was scheduled to aim to be approved at the extraordinary session of the Diet after the election of House of Councilors in July 2010.

institutions, whose deposits over 10,000,000 yen are not guaranteed. In terms of fostering fairness and competitive conditions, this is a big problem. In addition, it cannot be denied that the net effect of these changes will be to shift the money deposited in private financial institutions to the Japan Post Bank.²

There is further concern that this will damage the financing of small financial institutions with deep roots in their local communities since the financing of these institutions is limited to a very small geographical region much more than the financing of megabanks who can receive deposits nationwide. Representative organizations of private banks, such as the Japanese Banker Association, are taking these reforms very seriously, and actively opposing the raising of the deposit ceiling at the Japan Post Bank, while representative organizations of corporative financial institutions such as The National Association of Shinkin Banks, who anticipate even greater losses, have also been voicing their strong objections. In addition, there is a concern that the money financed by a particular region will be removed from the regional financial institutions, including credit associations, and transferred to the Japan Post Bank for the purchase of buying more government bonds, etc., making it difficult for regional financial institutions to supply money to small- and medium-sized enterprises, and thus the function of returning money financed by a particular region to the businesses and individuals in that region will be hindered. Furthermore, it cannot be fully ruled out that such inappropriate allocations of deposited funds in small regions of the country will accelerate the exhaustion of regional economies and the expansions of regional disparities.

In the present study, we investigated whether or not the services of postal savings would negatively impact the total amount of deposits received by credit associations, which are one of the main suppliers of money to small- and medium-sized enterprises in small communities. Specifically, we analyzed whether credit associations in a region whose share of postal savings is larger are pressured to set higher deposit interest rates due to the presence of postal savings, and based on this and other considerations, we analyzed whether the planned postal-service reforms are desirable. The periods analyzed in the present study were 1995 and post-1995, because the deposit interest rates that private financial institutions can set were fully liberalized in 1994.

The remainder of this paper is organized as follows. In Section 2, previous studies that analyzed the effects of the presence of nonprofit financial institutions in a region on bank performances are reviewed. In Section 3, the data and methodologies employed in the present study are explained. Section 4 presents and interprets the empirical results, and a summary and conclusions are provided in the final section.

² In fact, Cargill and Yoshino (2003) showed that a portion of the money deposited in private financial institutions is moved to postal savings in regions that experience a bank failure.

2. Literature Review

The effects of market characteristics on the performances of firms have been analyzed using models that test the structure-conduct-performance (SCP) hypothesis (Clarke et al., 1984; Smirlock, 1985; Evanoff and Fortier, 1988; Lloyd-Williams and Molyneux, 1994; Molyneux and Forbes, 1995; Naceur and Goaid, 2001, etc.).³ The SCP hypothesis states that competition among firms in a concentrated market will become weaker and thereby achieve higher profits (or higher lending interest rates and lower deposit interest rates in the case of banks), because the firms in a concentrated market will behave cooperatively.⁴

A few studies have analyzed the influence of the presence of financial institutions other than banks, particularly nonprofit financial institutions, on the performances of banks in the models that tested the SCP hypothesis. For example, Hannan (1984) analyzed the factors that determined the passbook savings rates and business hours of banks by using the Harfindahl Index and market shares of banks, savings and loan associations (S&L), mutual savings banks and credit unions and concluded that there is a competitive relation between banks and S&Ls. Tokle and Tokle (2000) analyzed whether the local market share of credit unions and that of S&Ls influenced the deposit interest rates of banks and demonstrated that banks in a region whose share of credit unions and that of S&Ls were higher paid higher interest rates for bank CDs.

The above studies showed that there are competitive relations between banks and nonprofit financial institutions. On the other hand, other studies have found that the presence of nonprofit financial institutions does not affect the performance of banks. Rose and Wolken (1988) analyzed the determinants of total operating income and total interest expense of banks by using the market share of S&Ls and concluded that the effects of S&Ls on the performances of banks are limited. Berger and Hannan (1989) showed that the share of bank branches in a market did not influence the deposit interest rates of banks in a model designed to test the SCP hypothesis. Hannan and Liang (1995) analyzed the loan interest rates of banks by using the Harfindahl Index and concluded that the presence of S&Ls did not affect the loan interest rates of banks.

Kondo (2008) examined whether the presence of postal savings and credit associations in Japan pressures regional banks (i.e., first- and second-tier regional banks) to set higher deposit interest rates. Their results indicated that the larger presence of credit associations in the regional market led to higher deposit rates for regional banks in 1995, but that this tendency has not been seen in more recent years, and the larger share of postal savings has led to lower deposit rates of

³ Holden and EL-Bannany (2004) and Kondo (2010) analyzed the effects of investment in ATMs by banks on bank performances based on these previous studies.

⁴ The hypothesis that challenges the SCP hypothesis is the relative efficiency hypothesis. It states that a more efficient firm can maximize its profits by reducing costs and expanding its size, and that the share of such firms in a market will become larger as a result.

3. Methodology and Data

3.1 Methodology

We estimated equation (1) as follows based on the studies reviewed in section 2, including Tokle and Tokle (2000) and Kondo (2008):

$$R_i = c_0 + c_1 \text{Concentration}_i + c_2 \text{Yuchoshare}_i + c_3 \log \text{Population}_i + c_4 \text{Age45}_i + c_5 \text{Wage}_i + c_6 \log \text{Asset}_i + c_7 \text{Capital}_i \quad (1)$$

R_i refers to the deposit interest rate of credit association i . It is calculated by dividing the interest on total deposits by total deposits minus current deposits (average balances),⁵ which are provided in the financial statement.

Concentration_i indicates the Harfindahl Index in a prefecture where the headquarters of credit association i is located and is used as the degree of market concentration. It is calculated based on the deposits of first-tier regional banks, second-tier regional banks, credit associations and the Japan Post Bank. If financial institutions in more concentrated markets behave in an oligopolistic fashion and credit associations in such regions can set lower deposit interest rates, the coefficient of Concentration_i will be negative.

Yuchoshare_i is the ratio of branches of the Postal Savings bank (now referred to as the Japan Post Bank) in a prefecture where the headquarters of credit association i is located to the sum of branches of banks (i.e., city banks, trust banks, first- and second-tier regional banks), credit associations and the Japan Post Bank in that prefecture, and is used as the index of the market share of Japan Post Bank.⁶ As mentioned in section 1, if the presence of postal savings pressures credit associations to set higher deposit interest rates, the coefficient of this variable will be positive. On the other hand, we should consider the fact that the Ministry of Posts and Telecommunications and the Ministry of Finance, two previously existing institutions that have since been retired, agreed to set the interest rates of postal savings to be lower than the market interest rates in 1992 because of the criticism that postal savings were pressuring the businesses of private financial institutions. That is, we can also consider the possibility that credit associations in a region that has a higher share of postal savings can set the deposit interest rates lower by keeping step with the low interest rates of

⁵ We took this method because current deposits are paid no interests in Japan.

⁶ We calculated this variable by using the data on branches according to the method of Berger and Hannan (1989) because the data on deposits of each type of financial institution have not been made available by the Bank of Japan since 2006.

postal savings, because it is required that the interest rates of postal savings be set lower than the market interest rates. In this case, the coefficient of $Yuchoshare_i$ will take a negative sign.

$Population_i$ is the population in a prefecture where the headquarters of credit association i is located and is used as the proxy of a scale of market of retail financial services. If the money supplied to financial institutions by regional citizens is more in a region where the needs of retail financial services are higher and credit associations in such a region set lower deposit interest rates, the coefficient of this variable will be negative. Furthermore, if it costs the banks in a populated region more to manage, and credit associations in such a region reflect its cost to deposit interest rates,⁷ the coefficient of $Population_i$ will also be negative.

$Age45_i$ is the ratio of the population above 45 years of age to the total population in a prefecture where the headquarters of credit association i is located and is the proxy measure of wealth. In general, older generations tend to have more wealth than younger ones. If the former are more sensitive to returns gained by investment, the coefficient of this variable will be positive.

$Wage_i$ is the average wage per household (per month) in a prefecture where the headquarters of credit association i is located and is used as the proxy of richness of a household. If a richer household holds surplus money and supplies more money to financial institutions, this variable will take a negative sign. On the other hand, if a rich household tends to require higher interest rates, this variable will be positive.

$Asset_i$ is the asset of credit association i and is used as the proxy of scale. If larger credit associations where economies of scale are at work return the cost reductions to depositors in the form of higher interest rates or other services, this variable will be positive.

$Capital_i$ is the capital-asset ratio of credit association i and is used as the proxy of credit capability. If a credit association whose credit risk is lower can finance more deposit easily even by lower interest rates, this variable will be negative.

3.2 Data

Next, we will examine the descriptive statistics of the data on deposit interest rates of credit associations. Table 1 shows the descriptive statistics of deposit interest rates in 1995, 2000, 2005 and 2008.

Table 1. Descriptive Statistics on Deposit Interest Rate (%)

In Table 1, it can be seen that interest rates in 2000 and 2005, when the zero-interest policy and quantitative easing of monetary policy were carried out, were lower than that in 1995. But the

⁷ In regard to this point, Hannan and Liang (1995) mentioned that land costs tend to be higher in more populated areas.

tendency that interest rate on 2008 after those policies were removed becomes higher than before can be observed.

Let us now consider Table 2, which shows the descriptive statistics of the data on $Yuchoshare_i$.

Table 2. Descriptive Statistics on $Yuchoshare$ (%)

Table 2 shows that the share of postal savings tended to increase little by little from 1995 to 2005. The reason for this increase was that the branches of private financial institutions had been largely decreased due to the failures of private financial institutions, and due to the consolidations and reforms of private financial institutions that often accompany such periods of institutional failure. In general, it can be said that the share of postal savings in a region (i.e., $Yuchoshare_i$) is large, because the mean values of $Yuchoshare_i$ in 2000 and after (i.e., in 2000, 2005, and 2008) were greater than 50%. It can also be said that there are some regions in which the share of postal-savings-related businesses are very large. We can understand this from the fact that the maximum values of $Yuchoshare_i$ in all years were about 70%.

The sources of the data employed in this study are as follows. The data on financial statements of credit associations were obtained from a report called 金融機関の財務状況報告書 (Financial Statements of All Credit Associations) (Consultant of Financial Books Co., Ltd., which is called Kinyu-Tosyo-Consultant-Sya in Japanese). The data on deposits of banks were taken from the 銀行の貸付状況報告書 (Analysis of Financial Statements of All Banks) report (Federation of Bankers Associations of Japan).

The prefectural data were taken from the 全国金融資源報告書 (Financial Resources of a Nation) report (Asahi Shimbun Publications Co., Ltd.), which is called 金融資源報告書 (Minryoku) in Japanese, and their original sources were as follows. Data on the deposits of postal savings were taken from surveys of the Bank of Japan, data from the branches of each financial institution were from the 金融機関の年次報告書 (Annual Report of Financial Institutions) (The Japan Financial News Co., Ltd.), which is called 金融機関の年次報告書 (Nikkin Shiryo Nenpo) in Japanese, population data were from the 住民基本台帳 (Resident Register) (Ministry of Internal Affairs and Communications) and the average wage data were from the 毎月労働力調査 (Monthly Labor Survey) (Ministry of Health, Labor and Welfare).

4. Empirical Results

The deposit interest rates set by private financial institutions in Japan were completely liberalized in 1994, as mentioned in section 1. In this section, we estimate the values of Equation (1) from the previous section by using the cross sectional data of 1995, 2000, 2005 and 2008, i.e., in the

years after 1994.⁸ Standard errors are calculated as White heteroskedasticity-consistent errors. The estimated results are shown in Table 3.

Table 3. Estimated Results

Let us first consider the variables on the characteristics of individual credit associations. The coefficients of $Asset_i$ were positive and significant at the 1% level in 1995 and 2000 and that in 2008 was positive and significant at the 5% level. From these facts, it can be considered that larger credit associations where economies of scale are at work tend to return the costs reductions to depositors in the form of higher interest rates or other services.

The coefficient of $Capital_i$ was negative and significant at the 5% level in 2000 and negative and significant at the 1% level in 2005. It can be said that credit associations whose credit risks were lower could easily finance from depositors at least until 2005, because they could set lower interest rates.

Let us now consider the variables on market characteristics. The coefficient of $Concentration_i$ was positive and significant at the 1% level in 1995, positive and significant at the 5% level in 2005 and positive and significant at the 10% level in 2008. These results are contrary to those expected. This might mean that credit associations in more concentrated regions, where higher profits are possible, tend to return those profits to depositors. It is often pointed out that deposit interest rates of Japanese financial institutions are much lower than those of European and American financial institutions. Considering these results and those for $Asset_i$ mentioned above, larger credit associations that can reduce their operating costs more easily and credit associations in more concentrated regions that will tend to earn relatively higher profits might adopt policies to return such profits to depositors rather than setting low interest rates to accelerate very low Japanese deposit interest rates.

The coefficient of $Yuchoshare_i$ was negative and significant at the 1% level in 1995 and negative and significant at the 5% level in 2000. It can be said that credit associations in regions whose share of postal savings was higher set lower interest rates until 2000 by keeping step with the lower interest rates of postal savings. In other words, it can be considered that credit associations in regions whose share of postal savings was higher benefited from the low interest rates of postal savings rather than competing with postal savings until 2000. But the coefficients of $Yuchoshare_i$ in 2005 and 2008 were not significant. That is, it can be understood that although credit associations and postal savings have not competed, the competitive pressures exerted on credit associations by postal savings have increased in recent years, because the benefits received from the low interest

⁸ Because the data on the capital-asset ratio of credit associations in 1995 was not disclosed, this variable was excluded when making the estimation for 1995.

rates of postal savings completely disappeared after 2005.⁹

The coefficient of $Population_i$ was negative and significant at the 1% level in 1995, but after 1995 this coefficient was not significant. We attribute this to the following. In 1995, credit associations could finance deposits by setting lower deposit interest rates, because interest rates around 1995 were higher and regional citizens deposited more money into private financial institutions, including credit associations. But because the interest rates of private financial institutions declined due to the zero-interest policy and quantitative easing of monetary policy and regional citizens did not deposit funds into private financial institutions (e.g., they began to buy investment trusts or government bonds rather than making deposits), credit associations in more populated regions could not set low deposit interest rates beginning at around 2000.

The coefficients of $Age45_i$ were positive and significant at the 5% level in 1995 and 2000. It can be considered that credit associations in regions with higher values of $Age45_i$, which are considered to have more wealth, will set higher interest rates by taking these generations that are more sensitive to returns in investment into consideration.

5. Conclusion

The present study empirically tested whether the presence of postal savings pressured credit associations, which are one of the most important regional financial institutions, to set high deposit interest rates. The study was performed during a time when completely privatizations of Japan Post Bank that had been in progress were frozen, and when reforms were considered which might have pressured regional financial institutions, including credit associations, to set higher deposit interest rates, i.e. to raise the ceilings of postal savings.

As a result, it is clear that credit associations in regions with larger shares of postal savings had been receiving benefits that allowed them to set lower deposit interest rates until 2000 by keeping step with the low interest rates of postal savings because it is required that the interest rates of postal savings be set lower than the market interest rates. But this tendency has not been observed since 2005. Judging from these facts, we can conclude that the competitions for deposited funds between credit associations and postal savings in regions whose share of postal savings is larger increased after the year 2000.

However, although it became harder for credit associations to finance deposits in cases in which the share of postal savings in a region were greater due to the failures and reforms of private

⁹ We also estimated R_i by applying the data from 1990, when the deposit interest rates set by private financial institutions were regulated as mentioned before, to equation (1). As expected, the results showed that the coefficient of $Yuchoshare_i$ was insignificant.

financial institutions, it can be said that the presence of postal savings does not pressure the businesses on deposits of credit associations, at least under the present conditions, because the share of postal savings in a region does not affect the deposit interest rates of credit associations in that region. It is not clear how the reforms of postal savings will be executed from now on.¹⁰ But considering the results obtained in the present study, increasing the size of the Japan Post Bank businesses while maintaining the participation of the government in them might induce a shift of money from regional financial institutions, including credit associations, to the Japan Post Bank. This, in turn, might make it more difficult for regional financial institutions, including credit associations, to supply money to small- and medium-sized enterprises smoothly. Judging from these conditions, if the planned reform maintaining the participation of the government in the Japan Post Bank is carried out, the maximum amount that depositors can deposit to the Japan Post Bank should be frozen at the present level, i.e., 10,000,000 yen, since at that level the postal savings do not appear to be creating pressure on credit associations to set higher deposit interest rates.

As mentioned in section 3, the data on deposit interest rates of credit associations used in the present study were calculated by dividing the sum of interests on both liquid deposits and time deposits by total deposits minus current deposits, for which no interest is paid in Japan. If we could restrict ourselves to the data on deposit interest rates at a particular level of maturity, it would be possible to perform a more precise analysis.

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¹⁰ The Minshuto that is the political party actually in office lost at the election of House of Councilors in July 2010. So if the government party will lack the majority at the House of Councilors, whether the related bill that was decided at cabinet meeting in April 2010 as mentioned in section 1 will be approved or not is unclear.

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Table 1. Descriptive Statistics on Deposit Interest Rate (%)

	1995	2000	2005	2008
Mean	2.019	0.306	0.069	0.588
Median	2.019	0.288	0.059	0.557
Maximum	2.382	0.684	0.333	1.232
Minimum	1.570	0.199	0.025	0.286
Std.dev.	0.148	0.077	0.034	0.116
Sample	415	384	291	281

Table 2. Descriptive Statistics on Yuchoshare (%)

	1995	2000	2005	2008
Mean	48.717	50.184	53.465	53.061
Median	49.509	49.820	54.164	52.860
Maximum	69.104	69.104	69.797	69.694
Minimum	32.434	37.101	41.973	40.902
Std.dev.	9.381	8.231	7.489	7.672
Sample	421	386	298	281

Table 3. Estimated Results

Year	1995	2000	2005	2008
	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant	1.688*** (4.973)	-0.372 (-1.429)	-0.131 (-0.938)	-0.350 (-0.701)
<i>Concentration_i</i>	0.000*** (4.695)	0.000 (0.720)	0.000** (2.257)	0.000* (1.711)
<i>Yuchoshare_i</i>	-0.005*** (-3.294)	-0.002** (-2.364)	0.000 (0.343)	0.001 (0.515)
<i>logPopulation_i</i>	-0.053*** (-3.705)	0.011 (1.315)	0.008 (1.477)	0.007 (0.387)
<i>Age45_i</i>	0.011** (2.407)	0.007** (2.321)	0.000 (0.238)	0.005 (0.939)
<i>Wage_i</i>	0.000 (0.533)	-0.000 (-0.819)	0.000 (0.255)	0.000 (1.461)
<i>logAsset_i</i>	0.036*** (4.496)	0.018*** (2.713)	0.001 (0.501)	0.029** (2.341)
<i>Capital_i</i>		-0.002** (-2.035)	-0.001*** (-2.853)	0.000 (0.180)
Adj-R ²	0.190	0.063	0.044	0.037
Sample	415	377	291	281

*Significant at the 10% level; **Significant at the 5% level; ***Significant at the 1% level.