IMES DISCUSSION PAPER SERIES

Postal banking in the United States and Japan:
a comparative analysis

Patricia Hagan Kuwayama

Discussion Paper No. 99-E-18

IMES

INSTITUTE FOR MONETARY AND ECONOMIC STUDIES

BANK OF JAPAN

C.P.O BOX 203 TOKYO
100-8630 JAPAN

IMES Discussion Paper Series 99-E-18
June 1999

Postal banking in the United States and Japan: a comparative analysis

Patricia Hagan Kuwayama*

Abstract

This paper analyzes the experience of the United States postal savings, and compares it to Japan's experience with a view to assessing the past and potential future role of postal savings in Japan. It finds that demand for postal savings deposits is explained, in both countries, mainly by two variables: price (interest-differentials) and confidence in private banks. Geographical accessibility in rural areas is of less, and diminishing, importance. It is argued that postal banking should be viewed as an alternative to publicly sponsored deposit insurance, as a means to assure households' access to safe and convenient savings and payment services. Accordingly, the reforms undertaken in the next few years under the outline set out by the 1998 "Basic Law on the Reform of Central Government Ministries and Agencies" might best aim to restructure postal savings as a "narrow bank," whose services are priced to fully reflect costs and risks incurred.

Key words: U. S. postal savings, Japanese postal savings, deposit insurance, narrow bank

JEL classification: G2, N2

* Center on Japanese Economy and Business, Columbia University, Graduate School of Business

This paper benefited from comments and suggestions of Thomas Cargill, Brian Gendreau, Yuri Okina, Hugh Patrick, Joseph Sommer, and Juro Teranishi. Kunio Okina and other colleagues provided invaluable help and encouragement during the author's stay at the Institute for Monetary and Economic Studies.

Outline of contents:

I. Introduction and summary 1

II. The United States postal savings experience

A. Conception and beginnings 5

B. Geography vs. other factors: Who used the system? 7

C. A time series model of U.S. aggregate demand for postal savings 13

D. Performance during banking panics: Historical and cross-section evidence 20

E. The demise of U.S. postal savings 25

III. Comparisons with Japan

A. Origins and prewar experience 27

B. Postwar Japanese experience 33

IV. Implications for Japanese postal savings reform 39

I. Introduction and summary

Japan is one of many countries that is reconsidering the role of its postal savings system as it prepares for the financial realities of the 21st century. Postal banks, which were introduced in most industrial countries during the second half of the 19th century or the early part of this century, are generally deemed to have served useful purposes in the past: They made deposit and payment services accessible to lower-income and non-urban households; provided a demonstrably safe deposit outlet in times of uncertainty about private banks; and may have raised household savings rates thus helping to fund both public and private capital needs. But, in every case, vast changes that have occurred in modern economies – including the spread of transportation and communications networks, the growing capability of private intermediaries to provide financial services, the spread of deposit insurance schemes for private banks, and central banks' ability to avoid financial panics with monetary policy – have called into question the continued appropriateness of the postal bank's traditional role.

Japan is well behind other countries in addressing this need for change. The United States and Canada abolished their postal savings systems over thirty years ago, New Zealand and a number of European countries have privatized theirs starting in the 1980s and most other European countries have taken at least some steps to privatize or streamline their postal banks in recent years. [1] Being a laggard gives Japan the advantage of relevant experience that it can use to inform its own future choices, but so far the discussion of Japanese postal savings reform has made little reference to foreign examples.

The United States admittedly is not the closest comparison: It started its postal savings system later than most, in 1910, and ended it in 1966. The U.S. postal bank was never

[1] Taiwan and Argentina announced plans for privatization in 1998. See Elixmann (1992) for details on individual European countries' reforms. Barth and Bartholomew document the related trend toward officially sponsored deposit insurance for private banks. Note that the United States and Canada were among the first to introduce the latter (1933 and 1967, respectively), as well as the first to abolish postal savings (1966 and 1968).

authorized to offer payment services, other than the money orders that post offices had always sold, in contrast with Japan and many European countries where the post office has long been a major provider of *giro* services[2]. And, the size of the U.S. postal savings system, even at its height in the 1930s and 1940s, never approached that of Japan. But even so, the motivations for establishing the U.S. postal bank, and the purposes it actually served for several decades, were essentially similar to those in Japan. And, the arguments that led to abolition also resemble discussion now heard in Japan. This paper contends that a good deal can be learned from examining the role – for better and for worse – that the U.S. postal bank played in the first half of this century. And, if something can be learned from this, most distant, comparison, it probably means that study of other cases would prove even more useful for Japan.

Several main observations are developed in the discussion below. First, while geographic availability of depository services to areas not served by private banks was always a prime justification of postal savings – in the United States as well as in Japan and Europe – it has not proved to be the major source of demand for postal savings, even if it was important to a few rural customers. From the start, the U.S. clientele of postal savings was concentrated in urban areas among immigrants from Southern and Eastern Europe, a group that had most reason to seek the safety of postal savings after their experience with unreliable "immigrant banks." In Japan, as well, efforts to document the special relevance of postal savings to households in remote areas have generally found its importance to be limited. And, as in most countries, this factor also has declined over time.

Second, the demand for postal savings – at least in terms of changes over time – is well explained by a simple deposit-allocation model based on relative interest rates and the level of confidence in private banks. Other variables, such as changes in convenience or

[2] This term is used to mean direct payments to or from a bank account, that is without requiring an intermediate exchange into cash.

other product features offered by the postal bank and its competitors, are important but most of the variation is explained by those two factors. Indeed, the demand schedule estimated in this paper for the United States turns out to be quite similar to that found for prewar Japan in an earlier study by Teranishi (1977). Documenting such a relationship for postwar Japan is more difficult, since most of the period saw no depository institution failures and nominal interest-differentials were essentially fixed until deposit rates were liberalized in 1992 and 1993. But the evidence is consistent with the existence of both price and confidence responses, if account is taken of tax changes and the "implicit put option" feature of the Japanese postal bank's main product, the Savings Certificate (*Teigaku chokin)* deposit.

This model does not necessarily explain the very different *levels* of postal savings use in Japan and the United States: Their share of total personal deposits has ranged upwards from 20% during most of the past 70 years in Japan, whereas it never got much over 5% in the United States.[3] However, the evidence reviewed below strongly suggests that this is a function of the products offered and price: The Japanese postal bank has been allowed to provide a much broader array of services than its U.S. counterpart, offers them in every town and village of Japan, and has expanded its products and convenience of use over time In addition, it has had more leeway to offer advantageous prices (or interest rates) relative to private banks than was true in the United States. In some ways, the Japanese postal bank actually faced less restrictive regulation than its commercial competitors – which, for instance, required Ministry of Finance approval, not often granted, to open any branch in a new location in response to demand.

This study shows that, in normal times, households do respond to the attraction of a government-sponsored depository if it offers at least the same return as available at

[3] These ratios are not perfectly comparable, as the U.S. share is of *all* time and savings accounts, including those of companies. However the difference is still very big.

private banks. And in times of financial turmoil, when depositors became wary of private banks, they have been willing to place funds in postal savings at significantly less than the privately offered return. There have been times when this helped to stabilize the situation, as postal savings were redeposited directly to solvent banks reducing the amount of cash drain out of the banking system. But there were other times – perhaps the most important example being in the United States in the 1930s – when shifts to postal savings became disruptive because such recycling did not occur and important lending intermediaries were deprived of funds.

So, even if it is desirable that the postal bank should attract funds in a confidence crisis, the systemic benefits will not be felt unless the "exit" side of the system is designed to assure prompt recycling. And, even if such recycling is sufficiently automatic to keep the postal bank's role on the lending side completely neutral, distortions can still result unless prices are set to reflect fully the actual costs and risks of the products offered. One approach to both problems might be to revive the 19th-century European idea of postal savings as a sort of "narrow bank": a bank that would invest only in credit-risk-free government securities, would hedge its interest-rate and liquidity risks in those markets. Such a bank would not be subsidized by other taxpayers: that is, it would offer only such deposit rates it as would allow it to cover all these costs.

If these conditions were met, it is possible that the postal savings market would shrink drastically or even disappear. But it is also possible that a postal bank can play a beneficial role as an alternative to mandatory insurance for household deposits. This was, in fact, the reasoning that led postal savings to be accepted in the United States in 1910 – a time when the moral hazard problems involved in government insurance schemes were widely recognized, and postal savings was regarded as a less dangerous alternative. However, neither of the requirements – full-cost pricing and neutral recycling – has been consistently met in the United States or Japan, and the record of postal savings'

contribution has therefore been flawed in both countries. This does not necessarily mean that a suitably designed system could not work to the public benefit. It does mean, though, that the discussion about how to design such a system needs to focus more directly on these issues than it has, so far.

II. The United States experience

A. Conception and beginnings[4]

The U.S. postal savings system had a later start than most, as well as an earlier end. Advocates, from the 1870s on, had cited the success of postal banks in most of the leading countries of the world in arguing for such a system to encourage household saving in the United States.[5] But commercial bankers successfully opposed this as an unnecessary incursion into the province of private business, until the banking panic of 1907-1908 brought the issue of safe banking facilities for ordinary people to national prominence. It became an issue that was debated throughout the 1908 Presidential election campaign, in which Republican William Howard Taft defeated Democrat William Jennings Bryan. The incumbent Republican President, Theodore Roosevelt, endorsed the idea in 1907 and the Republican Party included the proposal in its platform for the 1908 election despite the continued opposition of the American Banking Association. The Democratic Party platform called for a national guarantee of personal deposits, following what several States had already done starting in 1907, and endorsed postal savings only as a second-best alternative. The Republicans continued to oppose national insurance as too radical, stressing the moral hazards of such a guarantee as well

[4] The history of the U.S. postal system is chronicled in several places: Schewe (1970) covers the entire period although he does not treat some issues of interest to an economist; Kemmerer (1917) is an account by one of those who created the system, and gives a good sense of its conception and early years; O'Hara and Easley (1979) is an excellent analysis of the 1930s; and Zaun (1953) gives some of the later part of the story, reflecting the concerns of private bankers.

[5] Seventy-two bills were submitted to the U.S. Congress for this purpose between 1873 and 1909, not counting the 14 that were entered during the 1909-1911 Congress that eventually passed the Postal Savings Bill of 1910. (Schewe, pp. 188-200).

as the undesirably close national government supervision that it would entail.[6] But they were conscious of the need to head off growing support for deposit guarantees, as one Western State after another joined the march toward mandated insurance schemes. The Republicans' solid majority in the 1909 Congress, combined with the new President's high-profile support, thus assured passage of the Postal Savings Bill of 1910. Among the large industrial countries, only Germany – which during the 19th century had developed an extensive system of municipal savings banks serving a similar purpose – waited longer to establish postal savings.

One motivation that was lacking in the United States was the need to help finance the national government.[7] In fact, the absence of a sizable outstanding national debt posed a problem in designing a system that would not compete with commercial bank lending activities. Sensitivity was high, as well, to the possibility that a nationwide postal bank might drain funds from local to big-city financial markets. To avoid this, the law provided that postal savings were to be deposited in solvent commercial (National or State) banks within the same city, town, village, or locality as they had been gathered, in proportion to those banks' capital. The placements were to be backed by suitable collateral in the form of public securities "supported by the taxing power," according to the discretion of the nationwide postal savings system's board of trustees (consisting of the Postmaster General, the Treasury Secretary, and the Attorney General). Only when such local placement was not possible could the trustees elect to place the money in banks elsewhere within the same state, and if that outlet was not available in Federal government securities.

[6] Taft, in his acceptance speech to the Republication national convention, called it a proposal to "tax the honest and prudent banker to make up for the dishonesty and imprudence of others." He also worried that supervisory oversight would deprive private banks of their independence and, in essense, force State banks to become part of the National banking system. (Schewe, pp. 52-53.)

[7] Earlier, though, this had been an explicit motive for postal savings proposals that were advanced in the 1870s, when efforts were being made to refund the national debt that resulted from the issue of Greenbacks during the Civil War.

Also to minimize competition with commercial banks, individual deposits were limited to $500 (raised to $1000 in 1916 and $2500 in 1918), and the rates paid were fixed by the legislation at a low level. The 2% rate paid to postal depositors, and 2 1/4% paid to the postal savings system for deposits on-lent to commercial banks, compared to about 3.5% that most commercial banks were paying for private deposits at the time. The 2% rate was never changed during the entire history of the postal savings system; the 2 1/4% rate was raised once, to 2 1/2% in 1934.

The stated purposes of postal savings were essentially the same as had been advocated for decades in the United States and other countries: providing safe, interest-bearing deposits to savers who had no banking facilities within easy reach, or who had been made wary of private banks by the repeated panics of the 19th and early 20th centuries. Wider benefits to the overall economy were claimed as well, to result from educating ordinary people in the habit of thrift, and from drawing money out of cash hoards into the organized banking system. In addition to enhancing the supply of investment capital, some argued that this would alleviate the problem of "inelastic currency" and help avoid banking panics – thus overlapping a discussion about the need for a central bank that would eventually lead to establishing the Federal Reserve in 1913.

B. Geography vs. other factors: Who used the system?

The geographic inadequacy of private savings institutions figures prominently throughout the discussion of starting a postal savings bank. Advocates invariably cited the predicament of rural citizens who lived many miles from a bank, and the lack of savings facilities available in certain regions, particularly the Southern and Western states. Commercial banks, even those that offered savings deposits, were said to neglect the needs of ordinary households in favor of their main business serving a corporate clientele. Specialized savings banks, to the extent they existed, were concentrated in New England and one or two Midwestern states. Building and loan associations (the predecessors of

what are now usually called savings and loan associations) had experienced rapid growth but mainly served urban households, especially in a few cities with large German-American populations.

Support for postal savings was strongest in agrarian parts of the United States. Indeed, of 72 bills that were proposed in Congress between 1873 and 1909, only 5 were sponsored by legislators from the New England and Middle Atlantic states; fully half were proposed by men from West of the Mississippi. A prominent advocate, John Wanamaker, who as Postmaster General devoted three Annual Reports to documenting the need for a postal savings facility, emphasized that "due care should be taken to provide first for the States without savings banks." His Annual Report for 1892 reported statistics on the average distance from post offices (deemed to be centrally located) to savings depositories, which ranged from 10 miles in New England to 33 miles in the Southern states and 52 miles in the Pacific states.[8]

But these oft-repeated geographic considerations were not necessarily mirrored in the distribution of postal savings once it was established. In fact, one of the first things that happened was that most of the postal depositories set up in fourth class post offices (those serving the smallest communities) had to be closed because they had no deposits.[9] By 1916, data by individual state show that there was no positive correlation between the percent of population that had postal deposits and the scarcity (measured as thousand population per facility) of savings facilities at private banks. In fact, the correlation is slightly negative, but significant, a fact that may be explained by the concentration of immigrant clientele in urban areas, as described below. [10]

[8] Schewe, p. 31, and p. 37.

[9] The system was extended to fourth class post offices in its second year, and the number of postal depositories grew from 7500 to 12,812. But of the 3931 fourth class offices, 75% had no deposits and 72% (2753) were closed in 1913. (Schewe, p.99 and 103)

[10] The correlation is 0.16 in a regression including a constant, significant at the 1% level, with a coefficient of –0.02. Data from Schewe, p. 128-129, taken from the Annual Report for 1916 of the Board of Trustees of the Postal Savings System.

It was in the Southern states that the geographical argument had the most power. Distances between banks offering savings facilities were notably larger in both the South and the West than elsewhere in the country, but in the West this was also true of post offices. The *relative* unavailability of banking compared to postal facilities was a feature primarily found in Southern states: On average, they boasted 12 times as many post offices as bank savings facilities in 1909, compared to a ratio of 6 in Pacific states and less than 5 in all other regions of the United States.[11]

However, the statistics (which Congress required the Postal system to collect in a great deal of detail during the first few years of the new system) show that Southerners were not especially prone to make use of postal savings. In fact, the percent of population holding postal deposits in 1916 was far below the national average in all of these states. Usage was much higher in some of the Western states, but appears to have been concentrated in mining towns – towns that contemporary analysts noted had large immigrant populations. Statistics on race, collected only for 1912, are even more damning to the idea that the system would reach the poor of the rural South: Blacks made up 1.8% of depositors, compared to their 10.7% share in the total U.S. population, while the 88.8% of the population that classified itself as Caucasian were 98.1% of the clientele.[12]

What does come through clearly in all of the data is the system's disproportionate popularity with recent immigrants. As summarized by Kemmerer: "It is obviously to the small mining and industrial towns with their large foreign born populations that the postal savings system is rendering its greatest service." Among locations where there were large deposits, the largest postal savings per capita were found in Leadville, Colorado in 1916. The rest of the list is equally illustrative, almost exclusively made up of mining towns in the West and industrial cities of the Middle West, Pacific Coast, and Eastern Seaboard.[13]

[11] American Banking Association (1937), p. 9.
[12] Data presented in Schewe, pages 123 ff. Kemmerer presents much of the same information.
[13] Kemmerer, pp. 72-74.

Aggregate data in Table 1 show the pattern clearly:

Table 1
Postal Depositors by Country of Birth

	% of total deposits in 1915	% of U.S. population 1910 census	Deposits/ capita 1915
Greece	1.8	0.11	$11.70
Russia	20.7	1.86	7.85
Italy	14.2	1.44	6.95
Hungary	4.3	0.53	5.69
Austria	8.7	1.26	4.86
Sweden	2.2	0.71	2.17
Great Britain, Ireland & Canada	8.8	4.04	1.53
Germany	4.1	2.68	1.08
Other foreign	7.0	1.68	2.94
Total foreign	71.8	14.3	3.35
United States	28.2	85.7	0.23

Source: Kemmerer, p. 6 (taken from The United States Postal Savings System, pamphlet issued by the Post Office Department in 1916) These data also appear in Schewe, p. 122.

These data somewhat overstate the case, as Kemmerer acknowledged, since the proportion of the immigrant populations above the eligible age of 10 years was much higher than that of native-born Americans (97%, as opposed to 75%). However, even if adjusted for this fact the foreign-born population would represent fewer than 18% of eligible persons, making their 72% share of deposits still remarkable.

This did not come as a surprise. In fact, the Post Office actively sought immigrant deposits in the early years, issuing circulars in 23 languages and providing special assistance for non-English-speaking users. The fact that large amounts of money were being sent by money order to European countries, for deposit in postal or other banks, had been much observed as a reason to expect the postal bank would serve a purpose. U.S. postal officials proudly noted the declines in such outflows, which had been growing rapidly up to 1911, that occurred once the U.S. postal savings system was set up.[14]

[14] Schewe, p. 117 and 120, citing A.B.A. Proceedings of 1913 and 1916. Active promotion of postal savings was stopped later on, when the issue of competition with private banks became more serious.

The attraction of postal deposits to recent immigrants was attributed to two factors: their greater familiarity with postal savings, and their greater reluctance to use private banks, compared to native-born Americans. The first was certainly consistent with the pattern of foreign remittances cited above. But the greatest overrepresentation was not necessarily among immigrants from countries where postal savings were best established: The percentage of postal deposits in 1915 accounted for by Russian immigrants, for example, was nine times as large as their share of the adult population; the ratio for Italy was nearly as large at 8.6 and that for Greece was 12.7. The comparable ratio was much lower for other groups: It was only about two for persons born in Great Britain, where postal savings had existed for the longest time and were widely used.

Reluctance to use private banks was seen as partly a question of foreigners' lack of knowledge about them and language difficulties, barriers that the new postal bank went to some effort to overcome. Comparable barriers of unfamiliarity and illiteracy undoubtedly kept many rural Southerners – especially blacks – out of banks, and would have been a logical target of the postal bank given the rhetoric that had preceded its establishment. If postal officials made such an effort in the South, they clearly did not succeed.

This evidence shows that the most important reason for immigrants' behavior was their negative experiences with private institutions, including the so-called "immigrant banks" in the United States. These were not actually banks at all, but persons or establishments that offered deposit-type services in conjunction with other business (saloons, grocery stores, steamship bookings, remittances to foreign countries). The list of locations investigated by the Immigrant Commission in 1910, while it did not claim to be a complete census, was presumably representative and it includes many of the same industrial towns in the East and Middle West that were notable for their subsequent success in collecting postal deposits. The Commission also noted that the clientele of these "immigrant banks" was concentrated among immigrants from Southern and Eastern

Europe. In contrast, immigrants from the United Kingdom, Northern and Western Europe, and from China and Japan were not much involved. "[15] The Commission's adverse report was well publicized in the foreign-language press of the time, and also led to legislation that restricted the activities of such "banks," doubtless providing an extra boost to the new postal savings system's attraction for new Americans. Coincidentally, the outbreak of World War I in Europe disrupted the flow of remittances to some countries, likely reducing competition from this source.

In later years, when commercial bankers became more concerned about competition from postal savings, data were assembled to show that the geographical argument for postal savings depositories was becoming even less valid as time went on. In 1935, they found that only 21% of depositories were in towns that did not have private banks with savings departments, and 9% of these were within 15 miles of a town with such facilities.[16] In the early 1950s, the proportion in bankless towns had gone down to 17%. Only in North Dakota were more than 10% of postal deposits in bankless towns. Countrywide, fully 98% of postal savings accounts were in communities that did have banks.[17] Even the system's role in serving immigrants seems to have disappeared by the mid-1930s, according to the A.B.A.'s account.[18] This they attributed to the declining flow of immigration to the United States, especially after restrictive quotas were introduced in 1924, which meant that the average foreign-born had been in the country for a longer time, and had acquired more familiarity with U.S. institutions, compared to the early years of postal savings. Both the spread of private intermediaries, and the lessened needs of immigrants, were advanced as reasons why the postal system was no longer needed, and played a role in the eventual decision to abolish it.

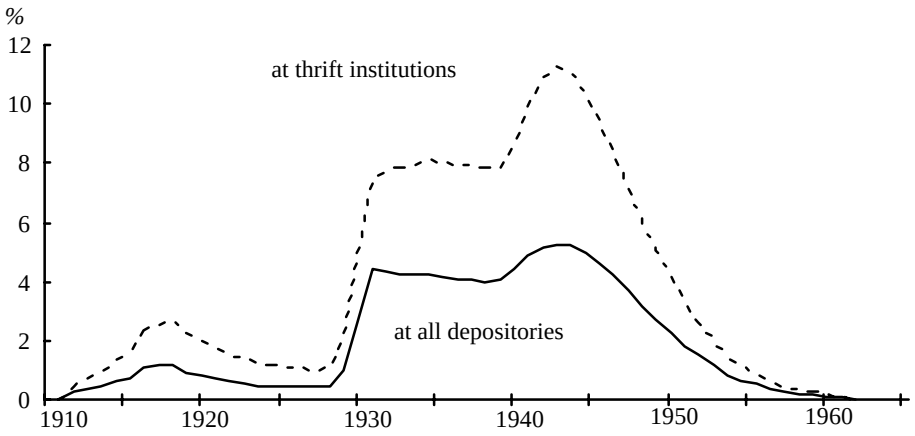
[15] U.S. Immigration Commission (1910), p. 14. The Report noted that while there were banks that primarily served Japanese immigrants in California, these were properly licensed banks and not the subject of problems like those of the "immigrant banks."
[16] American Banking Association (1937), p. 32.
[17] Zaun, p. 64.
[18] A.B.A. (1937), p. 50. Using the A.B.A.'s data for American cities, the percentage of the population that was foreign born bore an insignificantly negative correlation with the percent using postal savings.

C. A time series model of U.S. aggregate demand for postal savings

The U.S. postal bank was deemed a success in its first two decades, as it gradually increased its size by serving the specialized needs of a limited clientele. Up to 1930, although it grew steadily, the postal system never accounted for much more than 1% of all time and savings deposits in U.S. banks. Subsequently, though, it experienced two periods of explosive growth which increased its importance well beyond what the designers had probably envisaged.

Chart 1

Postal savings share of time and savings deposits

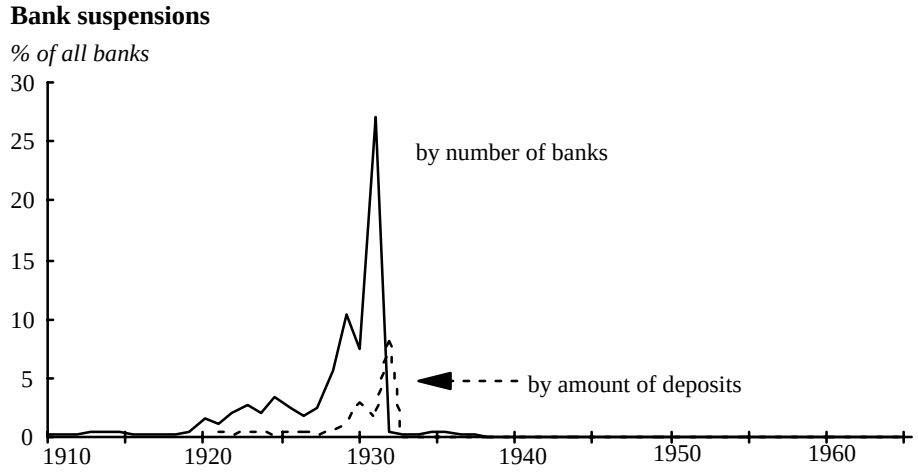


Source: Historical Statistics of the United States, p. 1032.

The first period of dramatic growth was in the early 1930s, and there is little dispute that this was a response to the widespread failures of private banks during the Great Depression. By 1933, postal savings had jumped to almost 4 1/2% of all time and savings deposits in the U.S. banking system, and 7 1/2% of deposits at those institutions that specialized in taking household savings.[19] This interesting episode is well described in the 1979 article by O'Hara and Easley, as already noted.

[19] Aside from postal savings, this includes deposits at mutual savings banks, savings and loan associations (usually known as building, or building and loan associations in the earlier period), and credit unions (which came into existence after 1933). Unlike the category of "time deposits" at commercial banks, which include corporate deposits, all of these can be assumed to be held by individuals.

Chart 2



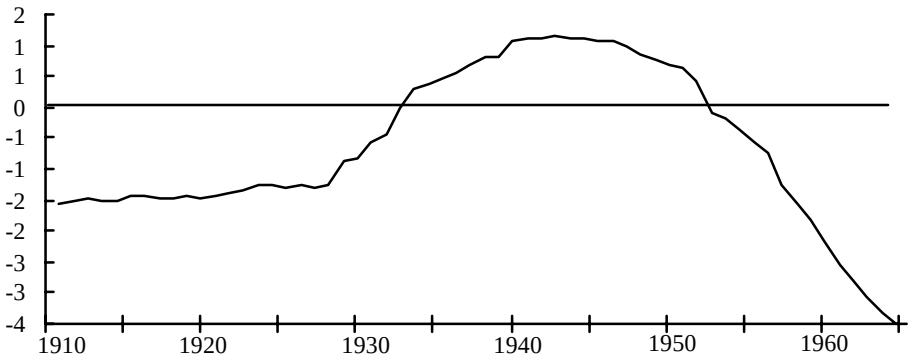
Source: Board of Governors of the Federal Reserve System, Banking and Monetary Statistics; data before 1922, available only for the number of suspensions, from Historical Statistics of the United States. (Note that data for both lines are plotted through 1970, but negligibly small after the 1930s.)

The second growth spurt, however, occurred in the 1940s when confidence in private banks should not have been a serious issue. Bankers at the time complained that the post office was attracting deposits by continuing to pay its fixed 2% interest rate at a time when commercial bank interest rates had fallen well below that level. And, in fact, the figures show that postal savings did have at least a modest interest advantage from the mid-1930s until the early 1950s, and this advantage was at its greatest during the 1940s (chart below).

Chart 3

Interest advantage of postal savings

% (2% rate on postal savings less average rate on bank time deposits)



Source: Goldsmith, pp. 406-407, and Historical Statistics of the United States, Part 2, p. 1041.

The model below explains the demand for postal savings deposits using the simplest type of stock adjustment model including price and wealth variables: It assumes that the desired share of savings deposits to be held at post offices, p* is a function of relative interest rates, confidence in private banks, the level of average total deposit savings, and other variables suggested by contemporary accounts. Adjustment of the actual to desired share is only partially accomplished in each year, at a fixed rate λ, whether because of transactions costs, lags in the formation of expectations, or perception lags. This attempts to explain only the allocation between postal and other savings deposits, taking the level of deposits as given.[20] Thus,

$p_t - p_{t-1} = \lambda (p_t^* - p_{t-1})$ and

$p_t^* = \alpha + \beta X_t + \varepsilon_t$ where X is a vector of variables including:

r = the interest advantage of postal savings, represented as 2% less the average rate paid on time deposits at private institutions. Data for the latter are taken from Goldsmith up to 1949. For the subsequent years, they were calculated using the method that Goldsmith applied for the 1934 to 1949 period, that is, the percentage ratio of interest paid on time

[20] This is the simplest version of the more general formulation used in, for example, Benjamin Friedman (1977). Some preliminary experiments with adding variables that reflect the greater ease of reallocating incremental, as opposed to existing, wealth holdings, as described in that article, did not yield significant contributions to the explanation.

deposits at insured U.S. commercial banks to total time deposits outstanding in each year, based on data from the Historical Statistics of the United States. The deposits total from Historical Statistics covers all commercial banks, but the resulting interest rate is nearly identical for overlapping years to Goldsmith's, indicating that this difference is not significant. (This differential understates the disadvantage of postal savings during the early years, when a depositor was paid interest only on amounts that were kept on deposit for a full year from the first month-end after he placed them. Starting in 1924, interest was paid, but not compounded, on a quarterly basis.)

f = bank failures, represented as (1) the number of suspended banks (including commercial, private, and mutual savings banks) in a given year as a per cent of the total number extant at the end of the previous year, or (2) total deposits of suspended institutions as a per cent of total outstanding deposits. Data are from the Federal Reserve's Banking and Monetary Statistics from 1922 on. Data on the number of suspensions in earlier years are from Historical Statistics (which presents the same, Federal Reserve data for the later years).

w = total time and savings deposits outstanding, divided by the size of the adult population of the United States, from Historical Statistics of the United States.

m = the number of persons serving on active military duty as a per cent of the adult population, from Historical Statistics of the United States.

eu = recent European immigration, represented as the number arriving in the previous five years as a per cent of the adult U.S. population, from Historical Statistics of the United States.

The equation is transformed from the above as:

$$p_t = \alpha\lambda + \lambda\beta_i X_i + (1 - \lambda)\, p_{t-1} + \lambda\, \varepsilon$$

The equation was estimated using two-stage least squares, with lagged values of all independent variables as instruments, to avoid problems associated with correlation between the lagged dependent variable and the error term.

The estimated relationship for the period 1914 to 1967 is:

$$p_t = 0.2138 + 0.0391\ r_t + 0.0493\ f_t - 0.0002\ w_t + 0.0320\ m_t + 0.8917\ p_{t-1}$$
$$\quad (0.56) \quad (0.24) \quad (5.92) \quad (-0.82) \quad (1.69) \quad (7.04)$$

(numbers in parentheses are t statistics)

Autocorrelation coefficient = 0.72
Standard error of regression = 0.215 R squared = 0.988
Durbin h statistic = 1.07

The above estimate used the number of bank suspensions as the "f" variable, to take advantage of its availability all the way back to 1911, since the results were similar when the deposit measure was used for the shorter period starting in 1922. The dependent variable is postal savings' share of all time and other savings deposits; results were similar when the same exercise was done for postal savings as a percent of deposits at thrift institutions only.

The immigration variable, eu, was omitted as it was not significant – except for the pre-New Deal period, when it was significant only if the "wealth" variable was left out, implying that the influence of the sharp decline in immigration up to the mid-1930s cannot be distinguished from the upward trend in average deposit wealth.

If the hypothesis that confidence in private banks is a major factor is true, then it follows that the New Deal's introduction of federal deposit insurance should have made a difference. A test for a structural break after 1935 indeed found significant difference. Separate regressions (following the same two-stage least squares methodology) yield[21]

For 1914-1935:

[21] One could justify a slightly earlier break, since federal deposit insurance was part of the Glass-Steagall Act passed in June 1933, and went into effect in January 1934 on a temporary basis. However, the significance of the confidence variable appears to be at its height around 1934. It seems reasonable to suppose that the behavioral change would have taken a couple of years to occur, particularly as the amount covered was doubled to $5000 in July 1934 and the system was only made permanent with the Banking Act of 1935.

$p_t = 2.959 + 1.5542\ r_t + 0.1009\ f_t - 0.0035\ w_t + 0.0995\ m_t + 0.6649\ p_{t-1}$
(3.81) (3.73) (9.30) (-4.40) (2.00) (6.59)

Autocorrelation coefficient = -0.75
Standard error of regression = 0.267 R squared = 0.971
Durbin h statistic = -0.46

For 1936 - 1967:

$p_t = 0.2536 - 0.0122\ r_t + 0.01790\ f_t - 0.0013\ w_t + 0.0316\ m_t + 0.981\ p_{t-1}$
(0.45) (-0.11) (0.52) (-2.16) (3.96) (10.85)

Autocorrelation coefficient = 1.13
Standard error of regression = 0.0926 R squared = 0.998
Durbin h statistic = 0.26

The test statistic for the difference between the restricted estimation, which assumes a single structure for the entire period, and an unrestricted estimation allowing a different structure after 1935, is 19.56, which is distributed as an F statistic with 23 and 22 degrees of freedom, and is significant at the 1% level. [22]

It should be recognized that most of the explanation here is coming from the two variables representing confidence and price. In a regression of the share on an interest-differential and the number of bank failures, 77% of the variation is explained if no adjustment is made for autocorrelation of residuals; and 96% with such adjustment (however autocorrelation remains high in the latter case, when the lagged dependent variable is not included).

Bank suspensions are the only independent variable that is clearly significant for the period as a whole – and its significance disappears after the New Deal as should be expected with the presence of nearly universal deposit insurance. The implied relationship indicates that a one percentage-point increase in the percent of banks failing leads to close to a half-percentage point increase in desired share of deposits held at post

[22] Erlat (1983).

offices. The implied value of λ is 0.11, meaning that adjustment would take about 9 years to complete.[23]

Results for the other variables are less convincing. The interest differential has the correct sign in the period as a whole, but is significant only for the earlier period. This is counterintuitive: If anything, the degree of price response would be expected to increase in an environment where bank safety is not a concern. The deposit-wealth variable has a negative sign, as expected given that there were ceilings on the amounts any individual could place in the post office, and that wealthier individuals generally have wider asset choice. It is significant for the subperiods (at the 1% level in the pre-New Deal period, and at the 4% in the later period), but not for the period as a whole. It has a much higher coefficient in the former period, and could be masquerading for some other variable with a strong trend. One candidate for this, as noted above, is the sharp decline in European immigration that occurred up to the mid-1930s.

The "military service" variable was introduced to test a hypothesis advanced by some to explain the rapid growth of postal savings during the mid-1940s.[24] In addition to the fact that the postal system paid higher interest,[25] postmasters reportedly were seeing large numbers of mailed deposits from soldiers away from home. Banking by mail was a service not widely offered by private banks until after World War II, and the example of the post office appears to have played a role in stimulating bankers to offer it. The variable has the correct sign, and is significant at the 1% level in both pre- and post-New Deal periods. But here, too, the coefficient is much larger in the former, and it is significant only at the 10% level for the period as a whole.

[23] Long adjustment periods are characteristic of estimated models of financial asset demand that use lagged dependent variables, and this is no exception. While 9 years is on the long side of plausible values, it is not entirely unbelievable given that the adjustment process estimated here involves consumer behavior, and not that of institutional investors.

[24] Schewe, pp. 166-167. Also see Zaun, p. 61

[25] Zaun, p. 14, says that the average rate of interest paid by mututal savings banks on time deposits was 1.7% in June 1947, and that the average rate paid by commercial banks was about 1%.

D. Performance during banking panics: Historical and cross-section evidence

1. Experience in the 1920s and 1930s

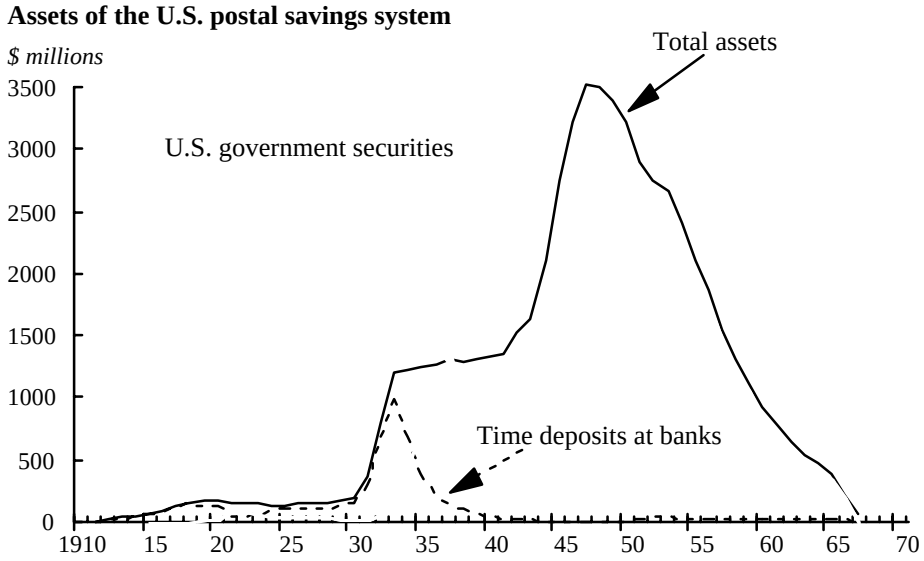
Edwin Kemmerer, in his review of the postal savings system's early performance, cited a number of instances in which the system had helped to mitigate the effects of local bank runs. Most were cases of a single bank failure leading to large withdrawals from other banks in the same community, and to deposits at the post office which were then redeposited in solvent local banks, thus limiting the spread of a liquidity crisis. Kemmerer concluded that, aside from these abnormal situations, there were no cases known of depositors' shifting funds from private banks to the post office. Rather, “the great bulk of initial deposits had come from hoards, and from funds that formerly were sent abroad for deposit in the postal savings banks and other banks of Europe." Similarly, the practice of making postal money orders out to the name of the purchaser for safe holding apparently ended after the postal savings system was established: About $8 million of these money orders had been issued during the 1907-1908 panic, but starting in 1911 these "were gradually cashed and the use of the money orders service for this purpose thereafter was negligible." Professor Kemmerer's conclusion was that, far from causing problems by encouraging sudden withdrawals from private banks, the postal system in its first seven years had actually helped to contain local banking disruptions. However, he also noted that the question had yet to be tested by a nationwide financial crisis.[26]

Episodes of bank failure remained common through the 1920s, and were often accompanied by sudden shifts of deposits to postal savings. The system's role in these crises was accepted as benign so long as the overwhelming bulk of inflows were promptly rechannelled to solvent local banks. But in the 1930s, the system broke down when postal savings exploded in response to the nationwide banking panic at the same time that

[26] Kemmerer, pp. 78-79. The episodes, except for the U.S. Trust run in Washington, D.C., were all in industrial or mining towns: Ironwood, Michigan, Lowell, Massachusetts, McKeesport and Pittsburgh, Pennsylvania, and Youngstown, Ohio. Kemmerer quotes from the Third Assistant Postmaster-General's Annual Report for 1915 and other Post Office statements. Schewe also recounts some of this evidence, as well as details on the decline in postal money orders sent abroad, pp. 115 ff.

interest rates plummeted with the onset of depression. Banks became no longer willing or able to take postal deposits at the fixed rate of 2 1/4% (the more so, after the untimely increase to 2 1/2% in 1934), and the share of postal savings system assets held at depository banks dropped from well over 80% to about half in the three years ended in 1934. By then, U.S. government securities were nearly two-thirds of the portfolio, compared to less than 10% during most of its previous history.

Chart 4



Sources: Federal Reserve Board, Banking and Monetary Statistics 1914-1941, and U.S. Post Office Department, Annual Reports of the Postmaster General.

This breakdown clearly reflected mis-pricing, and was not confined to times of banking uncertainty: In fact, the percentage of redeposits continued to decline even after the Depression, reaching well below 10% in the 1940s. But the experience of the 1930s demolished arguments that the postal savings system was helping to stabilize the banking system, at the time when that help would have been most needed.

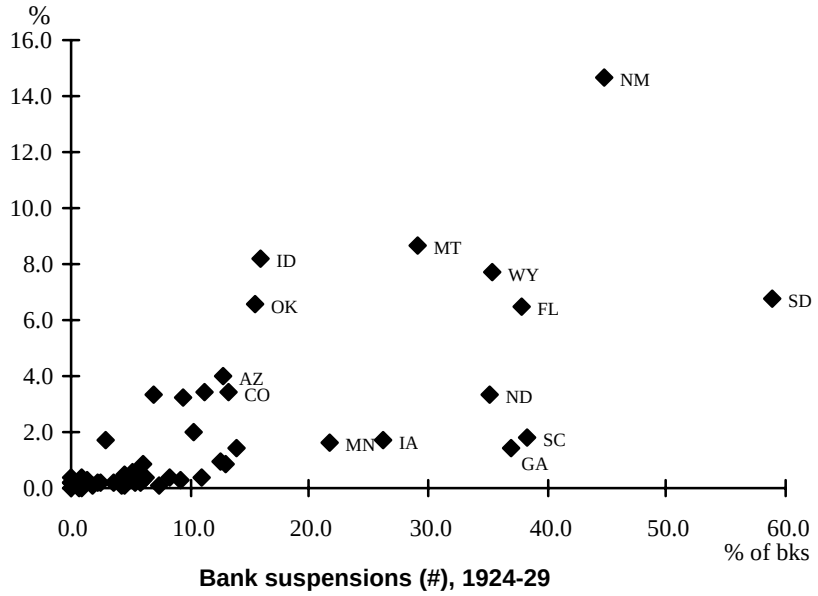
2. Cross-section data by state:

The link between lack of confidence in banks and postal savings demand is evident, not only in the time series data, but also in the experience of individual states. During the

1920s, when bank failures were not numerous nationwide but were in some areas, the use of postal savings was positively correlated with the number of suspensions in each state, as illustrated in chart 5. The relationship was significant in the Depression period as well, when a percentage-point change in the number of banking suspensions was associated with about a 0.6 percentage-point increase in the postal savings share (chart 6).[27]

Chart 5

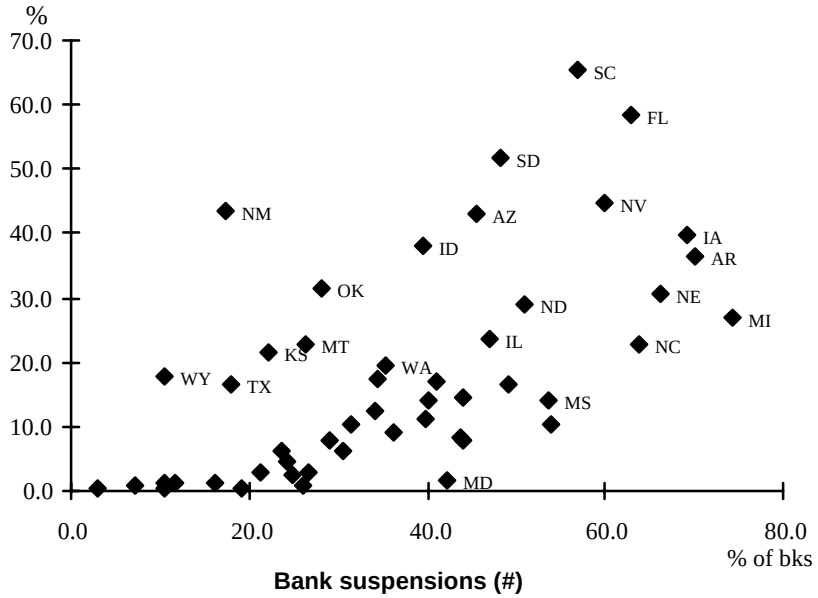
Postal savings and bank suspensions during the 1920s, by State



[27] Data are for all 48 states and the District of Columbia, from the Annual Reports of the Comptroller of the Currency and the Federal Reserve's Monetary and Banking Statistics. The correlation between the postal share in 1929 and the number of suspensions, in percent, during the previous five years, is 0.51 in a regression including a constant, which is significant at the 1% level. The correlation with the change in the postal savings share in the later period is 0.37, also significant at the 1% level. The coefficients are 0.16 for the 1920s case and 0.55 in the 1930s case. A similar regression using the dollar value of deposits at suspended banks instead of the number of instances (possible only for the later period) yielded similar, significant results: The coefficient is 0.69 and the correlation is 0.28.

Chart 6

Postal savings and bank suspensions (by number) during the Depression (1929-34), by State



Sources for Charts 5 and 6: Federal Reserve Board, Banking and Monetary Statistics, and Comptroller of the Currency, Annual Reports.

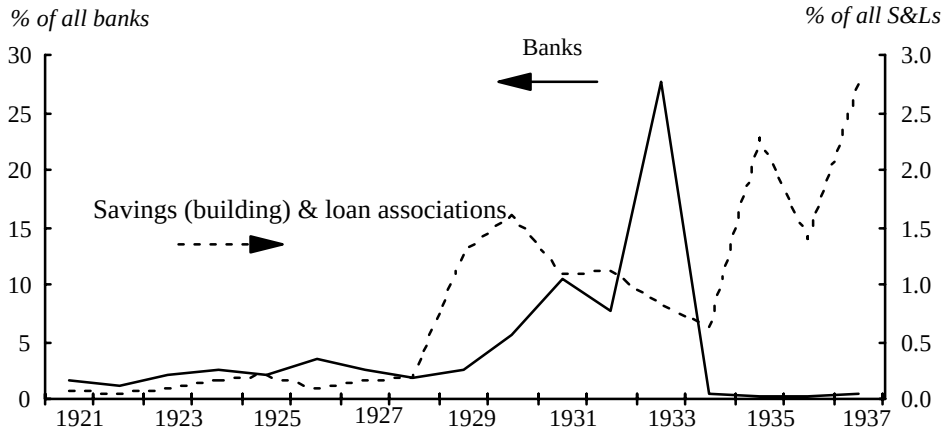
3. Impact on other depository institutions

Failures were far less common at saving (or building) and loan associations than they were at banks, but they started growing rapidly a few years earlier, in 1929, and continued until the late 1930s. Commercial bank failures, on the other hand, subsided quickly after 1933 (chart 7). O'Hara and Easley, in fact, attribute part of the thrift institutions' difficulties to the postal savings system, which competed directly with these S&Ls for retail deposits and also were not eligible to receive redeposits of postal savings. While the scale was very different, the timing of deposit losses at the two classes of private depositories suggests that post offices' gain was at the expense of both.[28]

[28] Cross-section analysis across states shows the same thing: Postal savings growth was not as strongly correlated with S&L deposit losses as was true for banks, but the correlation was significant.at 0.19

Chart 7

Number of suspensions



Source: Historical Statistics of the United States. "Banks" here include mutual savings banks, but a negligible proportion of the failures was in this category.

Deposit losses were by far the greatest at commercial banks, whether measured in dollar or percentage terms: By 1934 commercial banks had lost nearly 40% of the deposits they had had on their balance sheets four years earlier (partly, of course, through disappearance of failed banks), whereas S&L deposits had shrunk to about three-quarters their previous size Mutual savings banks, in contrast, actually grew slightly during the depression years (Table 2). While the quality of their asset portfolios was hurt, only 11 actually failed during the 1930s (compared to two in the 1920s) apparently causing many depositors to view them as a comparatively safe place to keep their savings (Table 2).[29]

Table 2
Cumulative deposit changes after 1929

	in millions of dollars				*as percent of 1929 level*			
	Postal savings deposits	Commer-cial bank time dep.	Mutual savings bank dep.	S&L association savings	Postal savings deposits	Commer-cial bank time dep.	Mutual savings bank dep.	S&L association savings
1930	21	148	260	270				
1931	193	-866	980	110	130	-4	11	2
1932	631	-5508	1060	-380	423	-28	12	-6
1933	1037	-8708	820	-960	696	-45	9	-16
1934	1047	-7569	800	-1400	703	-39	9	-23

Source: U.S. Department of Commerce, Historical Statistics of the United States from Colonial Times to 1970.

[29] Welfling, pp. 84-85.

The S&L industry was a relatively small part of the financial system of the time, but O'Hara and Easley (1979) argue that its difficulties had significant consequences for the economy. These institutions were important as lenders of home mortgages in their local areas, a business commercial banks were legally discouraged (in the case of national banks, prohibited) from entering. They cite anecdotal evidence that – despite the fact that demand for housing loans was sharply reduced by Depression economic conditions – these institutions were unable to make good housing loans that they were asked for because of lack of funds.[30] Thus, while not a primary cause of Depression failures, the postal savings system was implicated as a contributor that may have exacerbated some of the unnecessary suffering resulting from imperfections in the financial system of the time.

E. The demise of U.S. postal savings

In the early years the postal savings system won support even from bankers, who found the system to provide negligible competition with their own deposit-taking activities and admitted that it might even play a helpful role at times. Objections to improving the system's services to depositors were gradually relinquished, paving the way for the decisions to increase the limit on individual savings, to pay quarterly interest, and to improve other administrative procedures.

The situation changed quickly during the 1930s, however, when bankers found the interest-rate advantage of postal savings was drawing deposits away and the opportunity for cheap redeposits no longer existed as an offsetting appeal. Already in 1937, the American Bankers Association compiled evidence that the system was no longer needed for, and no longer served, the purposes for which it had been created.[31] Zaun's 1953 study substantially updated and completed the bankers' arguments that these needs were being

[30] Pp. 747-748. The authors also point out that the S&L deposit data understate their difficulties, since these institutions were allowed to go "on notice," requiring depositors to wait for withdrawals until loan repayments came in. S&L assets were recorded at book value, so these data also underestimate the declines.
[31] The Postal Savings System of the United States, cited above.

served by an improved private banking system, by the U.S. Treasury's Savings Bond program, and by federal deposit insurance. He also argued that the postal savings operations were not nearly as cost-efficient as the Post Office's own study had found, citing various deficiencies in the accounting procedures used by the Post Office as contributing to the "amazingly low" operating expense ratios compared with those of private banks.[32]

Politicians, for their part, had found use for the system in connection with government finances but this became unimportant by the 1950s. Post office purchases of government bonds were credited with helping to finance U.S. participation in World War I, and the deficit that the federal government incurred in the recession following. In fact, the share of government debt in the system's portfolio jumped to about two-thirds in 1921 and 1922, somewhat contradicting the spirit of the original law. During the Second World War, when redeposit in banks was in any case not price-effective, these bond allocations grew to about 94%, and they stayed above 90% thereafter. The System played a major role, as well, in selling U.S. government savings bonds to the public, even though at times this was perceived to be at the expense of the System's own takings of postal deposits. By the 1950s, however, the postal saving system's 2% interest rate was no longer competitive and its deposits had begun to shrink, making it little use as a potential source of government finance. In any case, the Treasury's savings bond program was well established by then and the federal government was no longer running consistent deficits, ending any appeal to the Congress for keeping postal savings as a funding vehicle.

Government studies in the late 1940s and early 1950s confirmed the bankers' earlier conclusion that the system was no longer justified: The so-called "Hoover Report" prepared for the Executive Branch in 1949, and an audit by the General Accounting Office of the Congress in 1952, both questioned whether its original aims were still

[32] Zaun, pp. 44 ff.

applicable. Subsequent commissions went further, recommending that it be discontinued, and bills to end the system began to be introduced in Congress regularly starting in 1952. By 1965, the Postmaster General himself lent his support to abolishing the system as part of the Johnson Administration's effort to streamline the federal government. With fewer than a million depositors, the system had no significant constituency to support its survival. The only strong opposition came from the postal workers' union, but its argument that "hundreds" of clerks might have their jobs downgraded, if not abolished, fell on deaf ears. The proposal was passed with little debate in 1966, and provisions made to close the existing accounts of the postal savings system over the next several years.

III. Comparisons with Japan

A. Origins and prewar experience

Japan was one of the first countries to create a postal savings system, in 1875. Its designers took the United Kingdom's system as their model. At the time, the U.K. system, started in 1861, had previously been emulated by New Zealand (1867), Canada (1868) and Belgium (1870). The Japanese planners' stated goals were to improve the people's livelihood by encouraging thrift, and to gather small savings to provide capital to industry. The Meiji elite evidently judged commoners to be ignorant of the habit of saving, and took credit for teaching this virtue by – among other efforts – the postal savings system.[33] The domestic money order service, initiated along with savings deposits in 1875, was also considered an important benefit for ordinary Japanese. Direct transfer (giro) services were added starting in 1906. And, the post office also offered life insurance beginning in 1916, as it was considered that private insurance companies did not cater to the needs of middle and low-income households.

[33] This view is still found in standard accounts of the system's origins: See, for instance, Takezawa (1996) and Yoshino (1996). Patrick (1967) offers a different – and more plausible – interpretation: that postal savings' remarkable growth within its first ten years attests to the widespread saving habit that existed among even low-income groups at the time (p. 272).

The effort made was substantial, such that postal offices offering saving services existed in all the cities, towns, and villages of Japan by 1900. According to Teranishi, there were about 10,000 of these depositories during 1900 to 1940 – a larger number than served the vastly greater area of the United States during most of the U.S. system's life.[34] There is little dispute that postal savings thus made basic retail banking services more accessible to many people. Postal savings facilities, as compared with private banks whose operations tended to be concentrated in cities, were more available and more heavily used in areas of Japan with low population density. The very small size of many deposits, as well, indicated that the system was serving low-income households more than private institutions did.[35]

On the lending side, the system was originally designed as a "narrow bank" in the sense that its assets were the contemporary equivalent of today's risk-free national government bonds. Initially, all funds were placed with the First National Bank, a private bank licensed to issue currency before the creation of the Bank of Japan in 1882. Placements began to be made with the Ministry of Finance in 1878 and from 1884 they were exclusively in the latter. These funds were managed along with other funds of the Ministry's Deposits Bureau and the postal insurance system, all of which were placed in government bonds or the equivalent up until the late 1890s. At times – mainly during the Russo-Japanese War in 1905 and again at the time of World War I in Europe – a significant portion was also held in monetary-quality foreign assets.

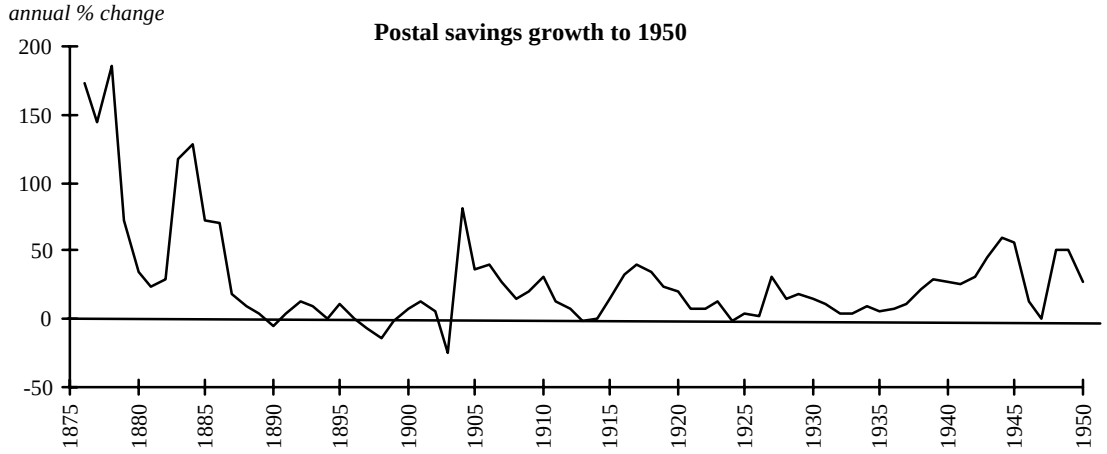
The practice of channeling postal savings, along with other moneys placed with the Deposits Bureau, into lending via government-related banks began in 1898, as part of the

[34] The U.S. postal savings system had 12,820 locations in 1913, before the decision was made to abolish those in fourth class districts that had no deposits. From 1915 on, the number ranged from 6300 (in 1921) to 8261 (in 1952). As of March 1998, the Japanese system had over 24,000 offices where saving and payment services are provided.

[35] Takezawa provides some documentation on both points, up to 1935 and 1940. (She notes, however, that prevalence of smaller deposits can also reflect changes in the use of postal accounts as demand deposits, rather than for savings, since they had desirable properties for making payments.)

emergency assistance program put together for the Osaka Spinning Company. However, such activities became sizable only after 1912 and, according to Teranishi, were still considered exceptional until the system began to be institutionalized after the mid 1920s. By the late 1930s, they acquired a form similar to the postwar system (now called the *zaiseitoyushi*, or *zaito*), in which postal savings and other funds are gathered in the MoF's Trust Fund Bureau (corresponding to the prewar Deposit Bureau), and then on-lent to various government-affiliated institutions whose lending is guided by MoF officials in line with policy objectives such as building the country's economic infrastructure.[36] From this history, it is clear that the Japanese postal savings system was able to be used for stabilization purposes, but whether and when this happened was a matter of *ad hoc* administrative judgments rather than any automatic feature of the system's design. The notion of maintaining a neutral, narrowly defined investment function on the "exit" side, which had been inherited as part of the European model of a postal bank, probably was never central to the appeal that the postal savings idea had for Meiji designers. In any case, the convenience of using postal savings as a huge slush fund for various policy lending purposes seems to have won out easily over time.

Chart 8



Source: Bank of Japan, Hundred-year Statistics of the Japanese Economy

[36] Teranishi (1995).

On the deposit side, the fortunes of the postal savings system from the very beginning were closely intertwined with the ups and downs of private institutions serving small savers. Most particularly, the system competed with the savings banks, which paid higher interest rates on deposits than the postal bank and thus had the advantage in normal times. Savings banks were first established in 1880, and experienced several waves of expansion and contraction related to the period's wars, recessions, banking panics, and – not least – to the pendulum of official laxity alternating with re-regulation.[37] The system's role got a boost during its first decade from the Matsukata deflation, which hurt many private banks, and by 1885 it accounted for 4.8% of the entire banking system, three times the size of the savings banks. Savings banks burgeoned in the early 1880s, until the authorities clamped down on new establishments in 1884 and subsequently implemented a restrictive savings bank law in 1893. Then, when protests led to relaxation of the supervisory standards in 1895, the savings banks took off again, far surpassing the growth of the postal savings system and of ordinary banks during the next five years. The overextended savings bank industry went through a severe crunch during the financial panic that followed the Sino-Japanese War in 1901, and the postal savings system's growth far outstripped that of private savings banks during the next several years. The lesson was repeated with the panic of 1907 and – most emphatically of all – again in the great banking crisis of 1927.

Teranishi's analysis of the experience between 1900 and 1940 found that the relative demand for postal savings deposits was well explained by a combination of interest-rate differential and bank safety concerns. His model allowed for substitution among time and savings deposits at three classes of bank: city banks, local banks (other banks including savings banks), and the postal bank, but otherwise was similar to the one used above for

[37] Patrick (1967), including table on p. 273; Arai, pp. 15-18; and Takezawa (1996).

the United States between 1911 and 1966.[38] Coefficients for the price variable (the difference between the rates paid on postal versus ordinary-bank deposits, since separate data are not available for the two classes of private bank) and the confidence variable (the number of bank failures as a proportion of existing banks) had correct signs although they were not always significant; the combined adjustment ratio was about 0.17 (implying about a 6-year adjustment period); and the coefficient of the wealth variable (measured as total time and savings deposits per capita) was positive but insignificant, an effect that Teranishi attributed to trend.

The main difference between this picture and the one drawn for the United States is that the safety attraction of postal savings is primarily relative to local banks, not city banks. The latter, in fact, tended to benefit during periods of uncertainty– although not as much as postal savings did. According to Teranishi, failures were almost entirely confined to local banks, and city banks even refrained from merging with failing institutions. Instead, local bank numbers shrank drastically through a process of bankruptcy and mergers among themselves.

The most dramatic flight to postal savings occurred during the 1920s and early 1930s: As can be seen in Chart 9 below, their share of total household savings deposits more than doubled to 20% in the decade to 1931. The savings banks were particularly hard hit by the financial panic of 1920, having greatly overexpanded in the 1915-1920 period under a 1915 re-regulation which, while nominally aiming at closer prudential supervision, failed to limit their lending activities. Yet another new savings bank law was passed in 1921, limiting small savings deposits to specialized savings banks and imposing more restrictive guidelines. The law favored the savings banks and their depositors with tax exemptions, but the prudential requirements for reserving 1/3 of deposits in government

[38] The term "city bank" is used here, following Teranishi's usage, to refer to the "big five" banks that formed the core of the prewar banking system. It should not be confused with the postwar grouping of "City banks", which is defined by banking regulations.

bonds and other portfolio restrictions led to a massive consolidation via mergers: the number of savings banks declining by three-quarters in the first year of the new law.[39] For most banks, the big wave of failures occurred later, during the banking panic of 1927. This wave had relatively little impact on the already shrunken savings bank industry but it was once again accompanied by an accelerated shift to postal savings.

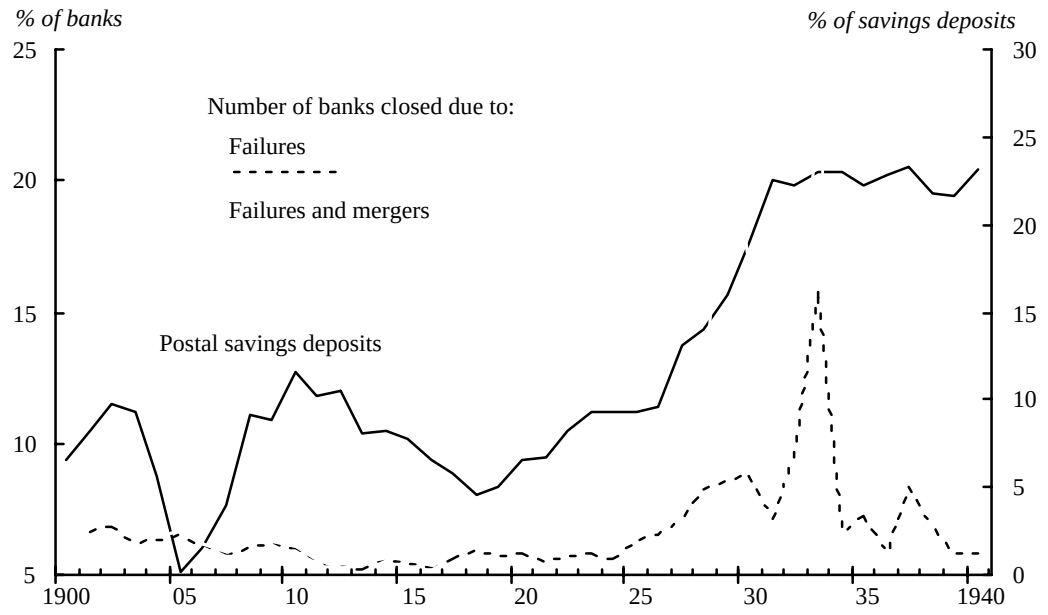
The decade or so that began in 1920 was of course a turbulent one world-wide, and Japan's increased involvement in the global economy had exposed it to fallout from booms and busts in the United States and Europe. Also, the leaders of Japan espoused a brand of *laissez-faire* philosophy that would be considered extreme today even in the United States. The economic and financial downturns of this period were exacerbated by untimely resumption of Japan's gold-standard obligations, and perhaps by an excessively strict interpretation of those obligations when they were in effect – in contrast with other gold-standard countries, including the United States, which availed themselves of considerable discretion in conducting monetary policy. While the gold standard was a constraint, it was not an absolute one, and these decisions were influenced by the explicit belief that recessions so induced would help to improve the "quality" of Japanese industry by eliminating inefficient players – most particularly the agricultural establishments and small firms and financial institutions that were considered to be not modern and not competitive.[40] In finance, the consequences were dramatically reflected in the falling numbers of banks, which went from over 2000 in 1921 to less than 1000 by 1929, and to half that again by the mid 1930s. The chart below is illustrative of the turmoil and its impact on postal savings:

[39] Takezawa, pp. 195-198.

[40] This is not, of course, to suggest that such views were peculiar to Japan. The American version tended to preach virtue rather than modernity, as in President Hoover's statement in 1933 that depression would "purge the rottenness out of the system" and cause people to "work harder, live a more moral life." (Quoted in Flood, p. 56.)

Chart 9

Commercial bank closures and the postal savings share



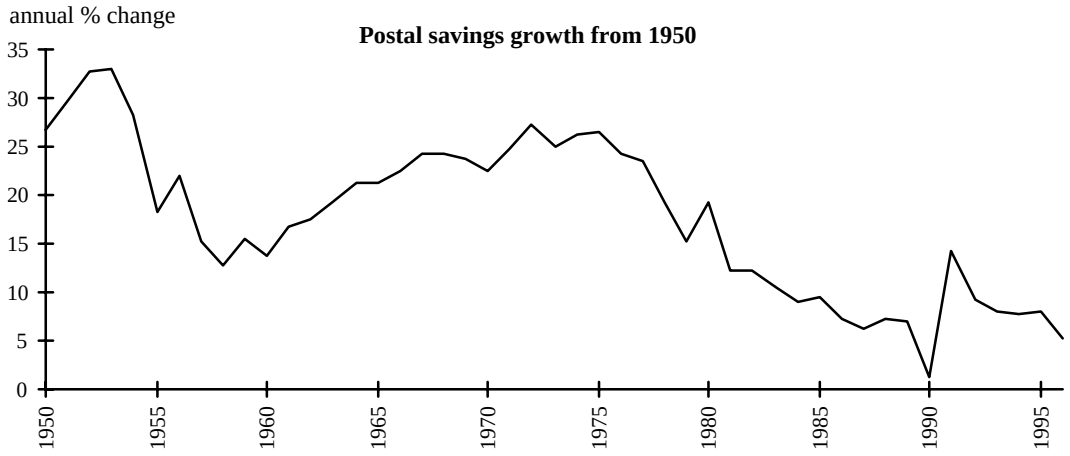
Source: Teranishi (1977), table on p. 451, and Teranishi (1995), table on p. 167.

B. Postwar Japanese experience

The postal savings system remained in existence throughout the Second World War – indeed, it experienced its most dramatic growth ever during those turbulent years, as shown in Chart 13 above, nearly quintupling its size between 1942 and 1945. The recipient *zaito* lending network was recreated along with the rest of Japan's financial system in the years following World War II. These structures were similar to those that had evolved by the end of the pre-War period, but the context in which they operated was totally different. With the memory of previous decades' turbulence fresh in mind, the postwar designers created a financial system in which it came to be understood that every institution – most particularly those whose liabilities were the savings of households – was backed by an implicit official guarantee against any form of default. Small and rural institutions were among the most protected, and activities of their larger counterparts were to be reined in as needed to prevent their succumbing to "excessive" competition. It is tempting to suggest that the postwar leaders sought exactly the opposite extreme of the

spectrum from their *laissez-faire* predecessors, creating an orderly society in which the protected small-firm sector would keep underemployed workers off the streets, and in which depository failures could never spark a financial panic. At any rate, the postwar period until the 1990s has been characterized by a nearly universal acceptance of an implicit government guarantee backing financial institutions' obligations to household savers.

Chart10



Source: Bank of Japan, Economic Statistics Annuals

In this protective environment, concerns over safety of private banks could not have remained a major variable in the demand for postal savings. It may have contributed to the slower growth of postal savings compared to bank deposits during the 1950s, as households gradually came to accept the new regime. But for the long haul, variations in postal savings demand must have been a function of relative price, convenience, and product offerings. Both the post office and private banks introduced improvements along the way, but not necessarily on the same timetable.

The system has nonetheless grown even more important during the postwar period than it was before – strongly suggesting that its services are attractively priced relative to those offered by the private sector. As of the end of 1998, Japanese households had ¥251

trillion (the equivalent of more than $2 trillion) in deposits at the post office. These accounted for 36% of households' total deposit holdings as of September 1998 (and deposits, in turn, account for almost two-thirds of households' total financial assets in Japan). Postal life insurance assets were almost ¥106 trillion, 35% of the market including all private life insurance companies, at end 1998. Both the deposit and insurance arms of the post office occupy a far larger part of their respective markets in Japan than in any other country.[41] The one area where some other postal banks may rival Japan's is payment services: The Japanese post office handles slightly over half of all domestic giro payments.[42]

The clearest demand shift occurred after April 1988, with the abolition of the exemption from income tax of interest income from savings deposits up to a prescribed limit for each individual. This exemption (often referred to as the *maruyu* system) applied to savings accounts at private institutions as well as the post office, but the limits were more effectively monitored at private banks than by the postal savings system.[43] As a result, so many savers held multiple tax-exempt accounts in different names that the total number of postal savings accounts exceeded the population of Japan by the mid-1980s. The unfairness of the phenomenon was much noted during the long debate about eliminating the *maruyu* system, but the system's popularity with voters proved a powerful obstacle for many years, until the law eliminating the exemption was finally ended in 1988. The change led to a substantial drop in postal savings' share after 1989, mainly in favor of

[41] This is true as of today. However, New Zealand's Post Office Savings Bank was even larger – relative to the country's financial system – prior to its privatization: It had about 55% of all New Zealanders' savings deposits in the early 1970s, and 38% still in 1986 (Carew, pp. 48-49).

[42] Elixmann (1992) says that the Swedish post office has 70% of the "giro transfer" market, and the Dutch counterpart about 40% of the "payments market". The Japanese postal savings system reported handling 111.6 million domestic giro transactions in FY1997, and Japanese commercial banks reported 106.6 million domestic funds transfers in the same period. The latter includes large items as well as small; however, the number of large items is unlikely to be large enough to alter the implied ratio of about 51%.

[43] One explanation for this discrepancy – although probably not the only one – is that the postal system was not computerized at the time (Ogawa, p. 38).

commercial banks. This episode certainly indicates some sensitivity to after-tax return, at least in the case of a very large and well-publicized change.

In general, however, the differential between rates paid on postal and private bank deposits was fixed under the administrative rate structure that lasted until 1992. The postal savings system paid higher rates than banks on "ordinary deposits", which may have given it an advantage in attracting deposits for payments purposes relative to the services offered. But the bulk of postal savings (over 80% from the early 1970s on, and closer to 90% in recent years) are in the form of Postal Savings Certificates (*Teigakuchokin),* a special savings deposit that the postal savings system first introduced in 1941 and whose main draw is as a receptacle for longer-term savings. With the exception of short periods surrounding changes in the official discount rate (when the postal system sometimes managed to lag in lowering, or lead in raising rates) pre-liberalization savings certificates paid the same nominal interest rate as the longest-term time deposit available at commercial banks (one-year up to 1970, two-year from 1973). For one-year deposits, the postal offering was a percentage point lower than at commercial banks. When compounding is considered, the comparative attraction of postal savings was effectively higher, but this differential too was more or less constant until recently. In the 1990s, private banks' deposit interest rates have been freed to market determination in the liberalization process that was completed in 1993, and the postal savings system has been explicitly required to keep its rates more in line with those on private deposits. As a result, the nominal interest advantage has been eliminated for one-year deposits, and the differentials for longer-term deposits have fluctuated in a 20 basis-point range around zero.

However, the character of the post office's savings certificate product is unique: It offers a fixed interest rate up to 10 years' maturity, but withdrawals can be made without penalty

after the first six months.[44] As has been pointed out by a number of analysts, this is equivalent to giving the depositor a "put" option whose value can be quite significant if interest rates on competing investments are thought likely to rise. Obviously, its value also implies significant risk to the institution offering such a deposit, in the form of possible future outflows of deposits that would have to be replaced at higher rates. Kamada (1996) has estimated the value of the "put option" feature of these deposits for a period starting January 1992 using option pricing theory. The value is significant, at up to 69 basis points when certificates are held for four years, and 1.45 percentage points when held for 10 years. Importantly, the value would vary over time as it depends on both the existing interest-rate structure and households' expectations for future changes in interest rates. It is possible, therefore, that much of the postwar variation in postal savings demand could be explained by changes in a correctly measured interest-differential, although this would not be easy to demonstrate with available data.[45]

With respect to the two original objectives of serving rural and low-income households, the situation has changed a good deal over the postwar period. Clearly, the income-tax avoidance feature of postal savings would have had greatest value to higher-income, not lower-income, households in the period before 1988. And the limits on individual deposits were progressively raised, from ¥1 million yen before 1973 to the present ceiling of ¥10 million in effect since 1991. However, Cargill and Yoshino (1999) find that the postal savings share is negatively affected by average income across prefectures during the entire period 1980 to 1995.

[44] Commercial banks have offered a similar product for maturity up to five years, but not for 10 years. Kamada's analysis, cited here, shows that the difference in value (i.e. risk) is considerable.

[45] Even using the nominal interest rates, with all the restrictions that limit price competition, Cargill and Yoshino (1999) find significant response to differential changes in interest rates on postal and bank deposits in annual data for the 1980-95 period. They also found the expected significant negative effect of a dummy variable representing periods of rising interest rates. These regressions were done using a combined sample of time series with cross-sectional data for the 47 prefectures of Japan.

In an earlier study, Yoshino (1991) found that a relationship between post office location and low population density still held in 1986. As of 1995, it remained the case that the share of personal deposits held in postal savings is negatively correlated with population density across prefectures, while the share in banks is positively correlated. Credit unions and credit cooperatives also tend to be located in more rural areas, however, and to have a larger share of deposits there, while commercial banks favor more populated locations. However, the Japanese bankers' association, in its pamphlet advocating privatization of postal savings, argues that this geographical motivation for a public facility has virtually disappeared. By their count, only 9 of the country's 3255 municipal units (cities, towns, and villages) lack any private retail banking facility, and two of these are precincts within Tokyo (Zenkoku ginko kyokai rengokai, p. 3).

The safety motive for using postal savings has reappeared in the 1990s in Japan, now that the never-fail policy for all private deposit-takers has become too costly to maintain. The authorities have begun to permit closure of insolvent institutions – although still promising to fortify the resources of the deposit insurance corporation sufficiently to pay off all individual depositors.[46] The revived increase since 1990 in the post office's deposit share – at a time when its interest advantage has been eaten away by liberalization and record-low interest rate levels – is plausibly attributed to this change in regime. The prefectural data offer circumstantial evidence that this is true: Among the greatest increases in postal share between 1990 and 1995, for example, were in Tokyo, Osaka, and other Kinki region prefectures, the same regions where all of the actual closures had occurred by then. (The only other prefectures seeing an increase of 3.5 percentage points or more during those five years were Miyazaki and Kagoshima in Kyushu, and Okinawa. The Bank of Japan ceased publishing these prefectural data as of 1995.)

[46] The stated commitment is unlimited until March 2001, after which the legal limit of ¥10 million is to be enforced.

The efficiency of the existing system in Japan is a much-debated point. Figures on comparative operating costs, when adjusted for taxes, reserve requirements, and insurance premiums that are imposed on private banks, tend to find the postal bank and its attendant lending institutions broadly comparable with the City banks but lower cost compared to regional banks.[47] The postal system's advantage is mainly in non-wage costs including that of physical facilities shared with post offices. These comparisons are rife with problems, including – to name just two – differences in business done and the greater restrictions placed on commercial banks' choice of branch location. And, it should not be viewed as a great comfort that the postal bank may be more efficient than smaller private institutions, given the evidence of overcapacity in Japanese banking and the prospect of major consolidation of the industry in coming years.

One thing that is not in doubt is that the postal savings system is highly popular in Japan. Indeed, Japanese savers seem to view it as uniformly more efficient and customer-oriented in its services than any private competitors, most particularly City banks. This is a marked contrast with the complaints about inefficiency and rudeness that appear to have added momentum to the privatization movements in New Zealand and the United Kingdom, and could be one aspect of the debate in Japan that is genuinely unique.[48]

IV. Implications for Japanese postal savings reform

It has become increasingly obvious that the salient characteristic of a postal bank is not so much that it is "postal", as that it is a government bank backed by the full faith and credit of the national authorities. The ability to make use of an extensive network of post offices may make it somewhat more cost-effective, especially in rural areas, and allow it to offer marginally higher interest rates than would otherwise be the case. But other depositories

[47] One such comparison is presented in Yoshino (1995).

[48] Another is the political power that has been acquired over the years by Japan's postal savings system, whose personnel and financial resources are said to play an active role in party politics. See Calder (1990) for some history of the system's relationship with the LDP.

such as credit unions also serve very small communities, and there are few places nowadays that do not have the services of a bank, much less one of these thrift institutions. Moreover, as more banking comes to be done via ATMs and the internet, the physical location of banking offices will become even less important as time goes on.

If this is true, then it is reasonable to view the postal bank as an alternative or supplement to government-sponsored deposit insurance, a means to provide safe, convenient basic deposit and payment services to retail customers. As such, it may also contribute to systemic safety when panic causes money to “run” from private banks – although history shows that this recycling only works if the system is properly designed and judiciously administered. What this suggests is a return to the original, "narrow-bank," version of postal savings, limiting investments to liquid, market-priced government bonds. This would avoid the moral hazards of the existing FILP structure by separating the guaranteed postal bank from any investing that involves credit risk. And it would provide a yardstick for measuring whether the system is hedging its remaining (interest-rate and liquidity) risks and covering costs, so as to ensure that it is not unfairly subsidized.

The Basic Law on Reform of Central Government Ministries and Agencies, which was passed in June 1998, takes two important steps in this direction: It provides that the postal businesses shall be transferred by 2003 (if certain conditions are met by then) to a government corporation *(kosha)* that will operate on accepted corporate business principles in its planning, budget, and disclosure of operations. This is understood to mean that the postal corporation will cover costs, separately accounted for in each of the main businesses (mail, banking, and insurance). The Law also says that the government should cease onlending postal deposits to the Ministry of Finance’s Trust Fund Bureau and prepare for their independent investment by the post office. Such investment is planned to begin by March 2001. This has set off a debate over how government-sponsored lending institutions will fund themselves in the future: the presumption being

that they will issue their own securities, either with or without explicit guarantees from the central government. In either case, the change is likely to prompt a healthy scrutiny of their individual activities that the *zaito* "slush fund" was designed to avoid.

It is unclear whether any of these deadlines will be met, since some government lending institutions and their client borrowers (including local governments) are financially straitened and will find it difficult to survive if their access to postal savings money is cut off in the next few years. But even if they are, there are two important sets of issues that are not addressed by this outline. One is how postal savings products will be priced in order to avoid an unfair subsidy from taxpayers. The other is the justification for running two competing systems for protecting small savers: postal banking and a government-sponsored deposit insurance scheme for private banks.

The Law explicitly precludes consideration of privatization, which seems to leave no doubt that postal deposits will continue to be backed by the full faith and credit of the government. Advocates of a "narrow bank" model of postal savings – including those that established the U.S. postal savings system in 1910 – have long argued that it is a superior alternative to deposit insurance because it lacks the latter's built-in moral hazards, and the consequent need to set up a complex supervisory apparatus to oversee private banks. But this advantage is lost unless government banking is limited to the postal bank. A proposal along those lines, which comes closest to the "narrow bank" ideas promoted by some U.S. central bankers and economists during the 1980s, has been offered by Professor Shoichi Royama (1997) in his outline for reform.[49] However, it seems amply clear that Japanese legislators are not considering any such radical change. The post office thus will remain in competition with private deposits insured by the government's Deposit Insurance Corporation, which is now being overhauled and refinanced at enormous taxpayer expense after the disastrous experience of recent years.

[49] See Cargill, Hutchison, and Ito (1997) for some of the arguments.

But even if it is designed to avoid the moral hazard problems of deposit insurance (or the existing FILP system), a restructured postal bank would still have to deal with long-standing problems of fair pricing. That is, interest rates must be set to cover all of the system's costs and risks, to avoid unfair subsidy from taxpayers. This has always been a murky area, and some costs – such as the imputed rent for using post offices – will always be difficult to assess. But setting market-based interest rates for Savings Certificates no longer should be difficult with today's highly developed swap markets available as a hedging and pricing base. Reserve requirements and corporate taxes would need to be assessed on the same basis as for commercial banks (although the latter may not be an issue if the postal system is operated to break even rather than earn a profit). Deposit insurance premiums may not apply, so long as the postal system were not allowed to undertake financial risks – nor to earn the corresponding returns.

It is an open question, of course, whether the Savings Certificate product – or the postal savings system itself – would survive such pricing. Indeed, market participants are already speculating about how much the system will retain of the large rollovers of high-yielding 10-year deposits that come due in the next two years. In all likelihood, the postal bank will survive on some scale for as long as the memory of current bank failures is still fresh. Over a longer period, if Japanese bankers and authorities succeed in establishing a truly safe and well functioning system of private intermediaries, savers are likely to forget this concern and become less willing to settle for the low return of risk-free assets embodied in a postal deposit. But the future size of the postal bank is a question that can be left to markets to decide, so long as the pricing is fair to both taxpayers and savers.

It is worth noting that the direction thus outlined is quite different from that taken in most other countries that have reformed their postal savings system. Abroad, the primary move is toward privatization, which tends to mean a *broadening*, rather than a narrowing, of the postal bank's activities. In New Zealand and several European countries, the move to

impose market discipline has paved the way for a wider range of both investment activities and product offerings. Some have begun offering insurance for the first time, for example – whereas the discussion in Japan seems to assume that postal banking and insurance businesses will be kept separate. Given the popularity that the postal savings system enjoys in Japan, it would not be surprising if the desire to broaden – rather than narrow – its role were to surface in coming years and call into question the current determination not to privatize. The debate – and the resulting design – would surely benefit if it were to start by distinguishing clearly among the several goals that a postal system is being asked to meet, such as: helping households do their banking business, helping the monetary authorities to assure systemic stability, and/or avoiding (or promoting) competition with private depository institutions. And it surely needs to be addressed – alongside deposit insurance – as part of the broad discussion of how to redesign Japan's financial safety nets after 2001.

Bibliography

American Bankers Association, The Postal Savings System of the United States, New York City, 1937.

American Bankers Association, Washington, D.C., Proceedings of the Annual Convention of the American Bankers Association, various years.

Arai, Masao, Development of Local Banking in Japan, Science Council of Japan, Economic Series, No. 19, September 1958.

Bank of Japan, Economic Statistics Annual, various years.

___, Economic Statistics by Prefecture *(todofukenbetsu keizai tokei),* various years.

___, Hundred-year Statistics of the Japanese Economy, 1966.

Barth, James R. and Philip F. Bartholomew, "The Thrift Industry Crisis: Revealed Weaknesses in the Federal Deposit Insurance System," in The Reform of Federal Deposit Insurance, ed. by James R. Barth and Dan R. Brunbaugh, Jr., Harper Business Press,1992.

Board of Governors of the Federal Reserve System, Banking and Monetary Statistics, 1914-1941, Washington, D.C., 1943.

Bryan, Lowell, Breaking up the Bank, Richard D. Irwin, 1988.

___, Bankrupt: Restoring the Health and Profitability of Our Banking System, MicKinsey % Company, 1991.

Calder, Kent E., "Linking Welfare and the Developmental State: Postal Savings in Japan," Journal of Japanese Studies, Vol. 16, No. 1 (Winter 1990), pp. 31-59.

Calomiris, Charles, "Is Deposit Insurance Necessary: A Historical Perspective", Journal of Economic History, June 1990.

Carew, Edna, New Zealand's Money Revolution, Allen & Unwin, Wellington, 1987.

Cargill, Thomas F., "Deposit Guarantees, Nonperforming Loans, and the Postal Savings System in Japan," in FDICIA: An Appraisal, Proceedings of the 29th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago, May 1993.

Cargill, Thomas F., Michael M. Hutchison and Takatoshi Ito, The Political Economy of Japanese Monetary Policy, M.I.T. Press, 1997.

Cargill, Thomas F. and Naoyuki Yoshino, Japan's Postal Saving System: Financial Liberalization, Dilemmas, and Solutions, unpublished manuscript, April 1999.

Corrigan, Gerald, Financial Market Structure: A Longer View, Federal Reserve Bank of New York, 1987.

Elixmann, Dieter, "Current Status of Postal Banking: The Case of Europe", in What Postal Banking for the Future, Korea Information Society Development Institute, KISDI International Conference IV, June 1992.

Erlat, Haluk, "A Note on Testing for Structural Change in a Single Equation Belonging to a Simultaneous System." Economics Letters, 13 (1983) pp.185-189, North-Holland Press.

Flood, Mark D., "The Great Deposit Insurance Debate", Federal Reserve Bank of St.Louis Review, July/August 1992.

Friedman, Benjamin, "Financial Flow Variables and the Short-Run Determination of Long-Term Interest Rates", Journal of Political Economy, August 1977.

Gendreau, Brian, "U.S. Deposit Insurance Reform," in World Financial Markets, January 1991, published by J.P. Morgan, New York.

Goldsmith, Raymond W., A Study of Saving in the United States, Vol. 1, Princeton University Press, Princeton, New Jersey, 1955.

Hamilton, James Henry, Savings and Savings Institutions, New York, Harper & Brothers,1902.

Golembe, Carter H., "The Deposit Insurance Legislation of 1933: An Examination of Its Antecedents and Its Purposes," Political Science Quarterly, Vol. 75, No. 2, June 1960.181-200.

Japan Development Bank and Japan Economic Research Corporation, Policy-Based Finance: The Experience of Postwar Japan, World Bank Discussion Papers, #221, Washington, D.C.,1993.

Kamada, Koichiro, "The Real Value of Postal Savings Certificates", Bank of Japan Monetary and Economic Studies, Vol. 11 No. 2, November 1993 (translation of

Teigakuyubinchokin no jisshitsu kachi ni tsuite, *Nihon ginko kinyu kenkyujo kinyukenkyu*, Vol. 12 No. 2, June 1993).

Kemmerer, Edwin Walter, Postal Savings, Princeton University Press, 1917.

Litan, Robert E., What Should Banks Do?, Brookings Institution, Washington, D.C.,1987.

Ogawa, Alicia, *Ginko gyokai no kudoka*, in Uchida, Kazuo and Mitsuhiro Fukao, ed., *Kinyu kudoka no keizai bunseki*, Nihon Keizai Shinbunsha, 1996.

O'Hara, Maureen and David Easley, "The Postal Savings System in the Depression", Journal of Economic History, Vol. 39, No. 3 (September 1979).

Patrick, Hugh T., Chapter entitled “Japan 1868-1914”, in Cameron, ed., Banking in the Early Stages of Industrialization: A Study in Comparative Economic History, Oxford University Press, New York, 1967.

_____, “The Economic Muddle of the 1920’s”, Chapter VII in Dilemmas of Growth in Prewar Japan, edited by James W. Morley, Princeton University Press, New Jersey, 1971.

Postal Savings Bureau of Japan, Postal Savings in Japan 1996, Ministry of Posts and Telecommunications, Tokyo.

Royama, Shoichi, "The Japanese Financial System in Future", paper presented at Osaka University, February 1997.

Schewe, Donald Bruce, "A History of the Postal Savings System in America, Ohio State University Doctoral Dissertaion, 1971, University Microfilms, Ann Arbor, Michigan.

Sprague, Oliver, History of Crises under the National Banking System, Government Printing Office, Washington, D.C., 1910.

Takezawa, Yasuko, *Nihon no chochikukinyukikan*, in Aizawa and Hirakawa, ed *Sekai no chochiku kinyukikan*, Yuseisho Institute, Nihon Hoyoronsha, 1996.

Teranishi, Juro, "Availability of Safe Assets and the Process of Bank Concentration in Japan”, Economic Development and Cultural Change, Volume 25, No. 3, April 1977.

___, *Senzenki ni okeru Seisaku Kinyu Ginko,* Keizai Kenkyu,Vol 46,No. 2 (April 1995).

Timberlake, Richard H., Monetary Policy in the United States: An Intellectual and Institutional History, University of Chicago Press, 1993.

U.S. Comproller of the Currency, Washington D.C., Annual Report of the Comptroller of the Currency, various years.

U.S. Department of Commerce, Bureau of the Census, Historical Statistics of the United States from Colonial Times to 1970, Washington, D.C. 1975.

U.S. Postmaster General, Washington, D.C. Annual Report of the Postmaster General of the United States, various years.

U.S. Senate Immigration Commission, Immigrant Banks, 61st Congress 2nd Session, Document #381, Government Printing Office, Washington, D.C., 1910.

Welfling, Weldon, Mutual Savings Banks: The Evolution of a Financial Intermediary, Case Western Reserve University Press, Cleveland, Ohio, 1968.

Yoshino, Naoyuki, *Kinri jiyuka to koteki kinyu*, in ESP, January 1991.

___, "*Kasenteki kinyu shijo ni okeru koteki kinyu no yakuwari*", in *Kaikakuki no kinyu system*, edited by Kaizuka, Keimei and Kazuo Ueda, Tokyo University Press, 1995.

___, *Nihyaku-yo-cho en no kyodai ga ayumu: Itsutsu no scenario*, in Economisto, October 28, 1996.

Zaun, Adam J., The Postal Savings System, Stonier School thesis, Rutgers University Gradute School of Banking, New Brunswick, N.J. 1953.

Yucho mondai kento bukai, *Yucho kaikaku e no teigen no torimatome*, April 1997.

Zenkoku ginko kyokai rengokai, *Yubinchokin mineika no ronten seiri*, March 1997.