The Demise of Regulation Q Differentials: Competition for Household Savins Between Commercial Banks and Savings and Loan Associations- A Note

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In a recent article (1) in this Review, W.S. Rawson and F.J. Ingram (RI) examine the influence of the spread between interest rates available on household deposits at savings and loan associations and commercial banks on the proportion of deposits at these institutions held in commercial banks. A review of the literature reveals that a large portion of the change in relative deposit holdings at S&Ls and CBs from 1947 through 1964 can be explained by movements in the interest rate differential (2). RI extend the above study to include the more recent years and conclude that "since 1967 if not earlier, interest differentials (within the range studied) have had no statistically significant impact on the flow of household savings between the commercial banking and savings and loan association sectors." (1, p. 34) Furthermore, they find this insensitivity to interest rate differentials to be true of both passbook deposits and nonpassbook deposits.

We contend that the structural form of their tests are improper and that after proper testing, relative holdings of pass book accounts are sensitive to the rate differential while the nonpassbook accounts are not sensitive to the interest rate differential. Furthermore, these results are not only reasonable, but they are expected due to the impact of Regulation Q ceilings first imposed in 1965.

Regulation Q and the Interest Differentials Between S & Ls and CBs.

RI properly assess that there was a structural shift in the relationship between relative holdings of deposits at CBs and the interest rate spread between the periods 1947-64 and 1965-77. Many factors could have caused the structural shift but perhaps the most obvious factor is the imposition of Regulation Q ceilings beginning in 1965. Unlike the 1947-64 period, savings rates available at depository institutions since 1965 have usually been far less than competitive rates available from money market securities. To assess the expected impact of the rate ceilings on passbook and nonpassbook accounts it is necessary to examine the major factors influencing the demand for each type of deposit.

Passbook deposits are primarily held as a precautionary demand for money. The extra convenience and liquidity of passbook deposits makes money market securities a poor substitute for the passbook accounts. Relative interest rates between S & Ls and CBs, however, should influence individuals' choice of location for the passbook accounts; that is, passbook accounts at S & Ls and CBs are hypothesized to be close substitutes even in a Regulation Q environment and should demonstrate the expected sensitivity to the interest rate differential.

On the other hand, the demand for nonpassbook accounts may be determined by convenience, liquidity, rate of return, and lack of knowledge concerning other alternatives. In an environment lacking effective Regulation Q ceilings, an individual would likely choose a bank or savings and loan based largely on interest rates and convenience. This hypothesis is, of course, consistent with the 1947-64 data. In the financial environment since 1965, however, the interest rate differential between S & Ls and CBs is not expected to be particularly important. The interest sensitive funds abandoned both depository institutions in search of the substantially higher rates available on money market securities, the familiar process known as disintermediation. The exodus of interest sensitive funds leads to the hypothesis that the rate differential is unimportant in determining the location of the nonpassbook deposits since 1965.

Empirical Tests

Economic theory on the demand for financial assets stipulates that the demand function be cast in real or inflation adjusted terms. It also stipulates that the level of deposits be a function of the level of interest rates or the change in deposits be a function of the change in rates. The appropriate functional form for RI and Vernon's studies should be the change in proportion of funds held at CBs as a function of the *change* in the spread.

The authors mention the hypothesis that the full impact of "*changes* in interest rate differentials"(emphasis added) may occur over a considerable period of time. (1, pp. 27-29) It is curious, therefore, that they failed to consider this possibility by including lagged values of changes in the rate spread.

The appropriate structural form of the regressions in general terms is:

$$\Delta S_t = f(\Delta DIFF_t, \Delta DIFF_{t-1}, ..., \Delta DIFF_{t-n}) \qquad (1)$$

where

ΔS = change in the proportion of CB holdings of deposits at S & Ls and CBs,

$\Delta DIFF$ = change in the rate differential between returns to savers in S & Ls and CBs.

The length of the lag, n, if any, is an empirical question.

One further change is warranted for the passbook regression. The change in the passbook spread (ΔPDIFF) never exceeds in absolute value .07 and averages a mere .02 for the 1974I to 1977III period. Obviously the almost nonexistent changes in the spread in these periods prevents the independent variable from explaining movements in the dependent variable. This does not imply that changes in the spread, should they occur, would not cause a change in banks' relative holdings of passbook accounts. Consequently, these periods should be eliminated to more clearly assess the impact of changes in the spread on the dependent variable.

Regression (1) for passbook deposits for the 1968I-73III period produces the following results:[1]

$$\Delta PS_t = .48 - 3.33 \Delta PDIFF_t - 3.45 \Delta PDIFF_{t-1}$$
$$(3.06)^* \qquad\qquad (3.24)^*$$
$$R^2 = .65$$

t - statistics in parentheses
* significant at 1 percent level.

Clearly changes in the rate differential in the time frame where they exhibit meaningful variation can account for a large percent of the variation in the relative holdings of passbook accounts.

Regression (1) for nonpassbook deposits for the 67II-77III period using obvious notation is:

$$\Delta NS_t = -1.28 - 0.14 \Delta NDIFF_t$$
$$(0.01)$$
$$R^2 = .00$$

t- statistics in parentheses

Several lag lengths were examined but the nonpassbook rate differential never exhibited significance at the 10 percent level. Furthermore, the F-ratio never approached significance at the usual levels. Thus, the changes in the rate differential in the period since the imposition of Regulation Q do not appear to be significant factors in individuals' choice of depository institution for nonpassbook deposits. This does not imply that relative rates of return at depository institutions will not influence the location of nonpassbook accounts in an environment lacking effective Regulation Q ceilings.

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[1]Two observations were lost due to taking changes in the spread and the one period lag. A two period lag was examined but the coefficient on the second lagged variable proved insignificant at the 10 percent level. The same criterion was used to estimate the other lag lengths. The similar regression over the 1968I-77II period is:

$$\Delta PS_t = .37 - 3.15 \Delta PDIFF_t - 2.05 \Delta PDIFF_{t-1}$$
$$(2.09)^{**} \qquad (1.52)$$
$$R^2 = .26$$
** significant at 5 percent level

In fact, reviewing Vernon's study for 1947-64 but substituting the change in spread for the independent variable produces:

$$\Delta S_t = -1.91 - 610.01\ \Delta P_t$$
$$\quad\quad\quad\quad (3.98)$$
$$R^2 = .51$$

t - statistics in parentheses

* significant at 1 percent level.

These results clearly indicate that the rate differential was an important factor influencing individuals' choice of deposit location in the non-Regulation Q environment. Although the above results examine a period prior to the rapid growth of nonpassbook accounts, theoretical considerations suggest that the rate differential will regain its importance in determining the location of nonpassbook accounts when Regulation Q ceilings become ineffective.

Bibliography

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