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Eliminating Reserve Requirements

Banks in most countries are required to hold non-interest earning deposits at their central banks. These deposits, called required reserves, figure importantly in the process of monetary control. These balances also are used to effect payments between banks and, thus, play an important role in the interbank payment system. Moreover, because these balances do not earn interest, they affect the competitive balance between bank and non-bank financial institutions.

Some countries have stopped imposing binding reserve requirements. In 1988, for example, Switzerland adopted a reserves accounting procedure that is tantamount to a zero-reserve requirement. The Government of Canada has adopted a policy aimed at eliminating reserve requirements, which will be implemented in the next year. The purpose of this *Letter* is to explore the issues involved in a zero-required-reserves policy.

The role of reserve requirements

The traditional view of monetary policy assigns reserve requirements a central role in monetary control. In this view, the behavior of prices and output in the economy is linked to the quantity of transaction-type deposits ("money") in the economy. The central bank influences this quantity indirectly by manipulating the supply of reserves and relying on a stable reserves/deposits link to generate the desired effect on the money stock. It can implement this policy by targeting either the money stock itself or the interest rate.

If the level of transactions deposits is, in fact, the important monetary variable, it may be desirable to fix the reserves/deposits ratio through a reserve requirement. By imposing a reserve requirement, the central bank can influence banks' desire to hold reserves and in this way gain better control over the link between its reserves policy and the money stock or interest rates.

In order to limit instability that voluntary reserves-holding behavior could introduce into the relationship between reserves and the money stock, the required reserves ratio must be higher than the voluntary level of reserves. In addition, reserves balances must earn less than the market rate of interest to discourage voluntary holding of excess reserves, which also could disturb the fixity of the reserves/deposit ratio.

Zero required reserves

Some economists have pointed out, however, that even without a reserve requirement, the banking system still would be willing to hold some non-interest earning reserves. Vault currency, for example, would continue to be held by banks against uncertain cash needs. Likewise, banks would continue to maintain some "deposits" at the central bank since these balances provide the "good funds" that banks use to settle transactions among themselves.

From the traditional viewpoint, the advisability of a zero-required-reserves policy thus depends on whether the voluntarily-held level of reserves would be stable or whether it would move in such a way as to make it difficult to manipulate the money stock or interest rates. Some economists have argued that the demand for reserves is sufficiently stable to permit the conduct of monetary policy in a zero-reserves environment. Others believe that the demand for reserves by banks in such an environment is so unpredictable as to make effective targeting of the money stock or interest rates very difficult.

More fundamentally, however, other economists have debated whether the reserves/deposits link is even central to managing the stability of the economy. Eugene Fama, among others, argues that it is not the quantity of transactions deposits ("money") that determines stability of prices in an economy, but rather the level of the monetary base (bank reserves and currency held by the public). In this view, a stable monetary base is important, but a stable relationship between reserves and deposits is not. As long as the monetary base can be manipulated by the central bank, formal reserve requirements are not necessary.

Reserves and banking markets
From the standpoint of monetary policy alone, therefore, it is not possible to conclude whether reserves should be regulated; the conclusion rests on one's views about monetary theory and the nature of the demand for reserves in the absence of reserve requirements.

From the standpoint of banking market considerations, however, the choice is quite clear. A high reserve requirement, enforced by non-payment of interest on reserves, severely penalizes depository intermediaries. A three-percent reserve requirement, for example, translates into more than a 25 basis-point cost disadvantage in the loan market at the current level of interest rates. That's enough to affect banks' market share significantly relative to non-bank competitors. (At present, reserve requirements in the U.S. range from three to 12 percent.)

Evidence of the distorting effects of reserve requirements in financial markets is readily available. For example, differentials between the reserve requirements imposed on members and on non-members of the Federal Reserve System caused distortions in the patterns of bank chartering in the U.S. in the 1970s. (The differential was eliminated by the Depository Institutions Deregulation and Monetary Control Act of 1980.)

Reserve requirements also have been linked to distortions in the level of bank- versus nonbank-intermediation in the U.S. The size of the banking sector relative to that of the nonbank financial sector has fluctuated with the size of regulatory taxes, including reserve requirements. A study of regulatory taxes by Pavel and Baer suggests that each basis point of "reserve tax" is associated with a 1.5 percent decline in the market share of banks.

Other countries have observed similar phenomena. In Germany, reserve requirements are employed extensively and vary considerably depending upon the size and type of deposit. Differences in the performance of various segments of the banking industry appear to be associated with differences in the effective burden of these reserve requirements. The slower growth of the big commercial banks relative to that of the savings bank and cooperative bank sectors in recent years may be due to effective reserve ratios for the latter groups that are as much as 12 percentage points lower than those for the big commercial banks.

International differences in reserve "taxes" also may influence the market shares enjoyed by banks of various nationalities in domestic loan markets. Offshore banking offices and special banking facilities that are exempt from the domestic reserves burden are manifestations of international differences in reserves treatment. As Canada implements its zero-reserves policy, the nature of U.S./Canadian banking competition likely will change, particularly in the banking markets near the border, since the new U.S.-Canada trade pact liberalizes cross-border financial activity.

In addition to its effects on market structure, required reserves policy distorts the nature of payments transactions and technology. Because required reserve balances are high, banks have little incentive to economize on the use of such balances in the payments process. (Moreover, because banks currently are not charged for overdrafts of these balances, banks have even less incentive to manage payments balances efficiently.) The contracts that are employed in foreign exchange and securities transactions reflect this bias; these contracts often require large gross flows of funds between banks when small net exchanges would do.

Finally, to the extent that high reserve requirements foster the development of substitutes for reservable bank deposits (such as liquid shares in mutual funds, for example), the policy can become self-defeating over time. These innovations, in effect, make more elastic the relationship between reserves, money, and economic activity—the very relationship on which the rationale for regulating reserves is based.

Would zero reserves work?
Switzerland offers one of the few examples of a zero-required-reserves regime. In January 1988, banks effectively were freed from having to meet minimum reserve requirements. The Swiss experience with managing monetary policy and the payments system after this reform is instructive.

First, it is interesting to observe the equilibrium "voluntary" reserve/deposit ratio. Prior to the policy change, total reserves in the Swiss banking system totalled about 9 billion Swiss francs.

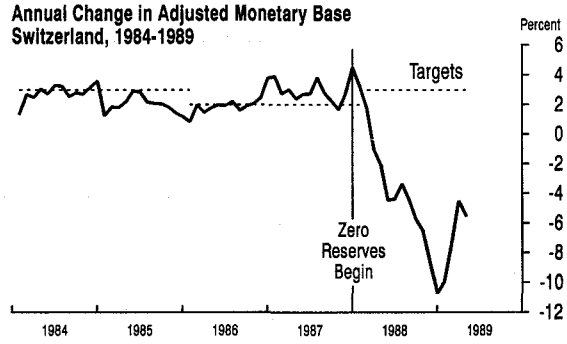
Following implementation of the new reserve requirement, reserves fell steadily for about a year, reaching a level of just above 2 billion francs in June of this year. Thus, for the Swiss economy at least, the equilibrium quantity of excess reserves appears to be somewhere in the vicinity of one to two percent of transactions-type deposits. (The equilibrium would have been lower still if the Swiss had not simultaneously eliminated daylight overdrafts.)

Second, the Swiss experience illustrates the flexibility of payments system practices and technology. Under the previous regime in which the reserve requirement ratio was high, banks had little incentive to economize on the use of their clearing balances. The required balances apparently were far more than would be justified by a bank's need to maintain a settlement balance or a contingency against unexpected liquidity needs. Thus, the turnover rate for these balances was only about three times daily. The turnover rate since implementation of the new reserves policy has climbed steadily and presently stands at over 50 times daily. Such changes illustrate vividly the magnitude of the effects of regulated reserves policy on payments conventions.

Finally, the effects of the changes on the conduct of Swiss monetary policy must be considered. Since 1979, Swiss monetary control procedures have emphasized the monetary base, rather than the money supply or interest rates. The willingness of Swiss banking authorities to eliminate required reserves is consistent with this policy perspective.

Prior to the reform, the authorities had been able to maintain actual base growth close to their two to three percent target, as the chart indicates. The target growth rate for the base for 1988 had been three percent, but because of the larger-than-expected decline in reserves holding, the base actually fell 3.9 percent over the year. Thus, the Swiss central bank may have overestimated the economy's need for liquidity reserves, and allowed monetary policy to be too loose in 1988, causing a sharp decline in interest rates in early 1988, and a subsequent decline in the value of the Swiss franc.

Annual Change in Adjusted Monetary Base
Switzerland, 1984-1989



Swiss economists expect the monetary authorities eventually to return to a more conservative monetary policy. And it is clear that monetary policy, rather than the treatment of reserves per se, is responsible for the somewhat reduced stature of the Swiss franc in world markets in recent months. Nonetheless, the Swiss experience illustrates the transition problems that can be encountered with a change in reserves regime.

Time for a careful look

Required reserves policy long has been an important source of distortions in the structure of the financial industry. Although the specter of impaired monetary control has made central banks reluctant to eliminate required reserves, it is not at all clear that doing so really poses such a threat. The experience of the Swiss, and soon the Canadian, banking systems can be watched closely for evidence of adverse effects.

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