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## **Proposals to Allow Federal Reserve Banks to Pay Interest on Reserve Balances: The Issues Behind the Legislation**

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# Proposals to Allow Federal Reserve Banks to Pay Interest on Reserve Balances: The Issues Behind the Legislation

## Summary

Depository institutions have been maintaining considerably smaller reserve balances at Federal Reserve banks (the Fed) since 1989. Some observers believe this situation could potentially lead to volatility in short-term interest rates. Limited reserve balances at the Fed affect the pool of funds available for interbank lending and borrowing. However, there has been little evidence of interest rate volatility so far. As an incentive for depository institutions to maintain higher levels of reserve balances, bills S. 229, S. 524, S. 601, H.R. 974, and H.R.1009. in the 107<sup>th</sup> Congress would allow depository institutions to earn interest on their reserve balances at the Fed.

For the Fed, these additional balances would provide a better tool for conducting monetary policy. The Federal Reserve is able to change the levels of these balances by buying U.S. government securities from and selling U.S. government securities to depository institutions. By influencing the aggregate level of these balances, the Fed influences the price (the interest rate) depository institutions charge each other for interbank transactions – the federal funds rate. The federal funds rate serves as the benchmark for most short-term interest rates.

Paying interest on balances at the Fed is expected to have a negative impact on the federal budget. CBO's April 3, 2001 cost estimate of H.R. 974 was that the bill would not have any net effect on annual revenues over the 2002-2006 period, but would decrease revenues after 2006. That revenue loss would total approximately \$1.2 billion over the 2006-2011 period.

Improvements in reserve balance management might explain why there has been little evidence of interest rate volatility and monetary policy ineffectiveness. Both the Federal Reserve System and the depository institution sector have developed technology, reserves and cash management strategies, and procedures that have helped to improve interest rate stability and monetary policy effectiveness. Specifically: (1) the Fed has taken significant steps toward improving the timeliness of providing account information to depository institutions, (2) more frequent open market operations are increasingly geared to daily payment needs, (3) a shift to lagged reserve requirements has given depositories and the Fed advance information on the demand for reserves, (4) improved procedures for estimating reserve demand have used reserves more efficiently, and (5) the Fed has allowed depository institutions to sweep transaction accounts to reduce reserve balances. Partly as a result, required reserve balances at Federal Reserve Banks have declined from more than \$37 billion in June 1988 to a little more than \$4 billion in the first quarter of 2000. These balances rose to about \$9 billion in last quarter of 2001. This dramatic decline occurred without serious volatility in short-term interest rates or a noticeable deterioration in the effectiveness of monetary policy.

This report will be updated as legislative and economic developments warrant.

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# Proposals to Allow Federal Reserve Banks to Pay Interest on Reserve Balances: The Issues Behind the Legislation

## Introduction

The Federal Reserve Act of 1913, as amended, requires depository institutions to maintain reserve balances at Federal Reserve Banks (the Fed).<sup>1</sup> By this same law, the Fed has not been allowed to pay interest to the depository institutions for these balances. The Fed uses these reserve balances for two purposes: interbank transactions (check clearing between depository institutions) and monetary policy (increasing and decreasing the money supply and, thus, interest rates). For a variety of reasons, including technological developments and Fed policy, depository institutions' reserve balances at the Fed have been declining, reaching a point that raises concern by some banking analysts about short-term interest rate stability and the Federal Reserve's ability to conduct monetary policy. Required reserve balances fell from almost \$37 billion in 1988 to a little more than \$4 billion in the first quarter of 2000. These balances have risen to about \$9 billion in last quarter of 2001.

Without sufficient reserve balances at the Fed, short term interest rates could become more volatile and monetary policy could become operationally more difficult. The link between these balances at the Fed and short-term interest rates is through the federal funds market. Depository institutions trade their funds held at the Federal Reserve among themselves every day at the interest rate called the federal funds rate. Financial markets use the federal funds rate as a benchmark for most short-term interest rates. A shortage of Fed balances could lead to higher rates in the federal funds market. Furthermore, because these balances are used in open market operations -- the buying and selling of government securities to expand and contract the money supply -- a balance shortage at the Fed could limit the Fed's ability to conduct monetary policy. Normally, the Fed uses these account balances to debit and credit the Fed accounts of the institutions that engaged in open market operations.

To induce depository institutions to maintain larger balances at the Fed, legislation reported from committees in both the Senate and House would allow the Fed to pay depository institutions interest on their balances at Federal Reserve Banks.

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<sup>1</sup> The Federal Reserve System consists of 12 regional banks and a Board of Governors in Washington. See the CRS Electronic Briefing Book on Banking and Financial Services at [<http://www.congress.gov/brbk/html/ebfin1.html>]. Depository institutions are commercial banks, savings and loan associations, mutual savings banks and credit unions.

This report presents some of the economic issues related to this proposed remedy. The report begins with a brief discussion of the legislation itself. The second section discusses the two main purposes of reserve balances at Federal Reserve Banks. The third section analyzes the level of the various categories of reserve balances at the Fed and trends in the amounts. The fourth section briefly describes depository institutions' reserve balance management. The fifth section briefly explains what would be likely to happen if the Fed paid interest on reserve balances. The sixth section presents the arguments the Fed uses in support of the legislation in the earlier Congresses as well as the Department of the Treasury's arguments for not supporting it.

## The Legislation

Legislation to allow the Federal Reserve Banks to pay depository institutions interest on the reserve balances the depository institutions maintain with them has been introduced in the 107<sup>th</sup> Congress. The bills include S. 229, S. 524, S. 601, H.R. 974, and H.R.1009. On January 31, 2001, Senator Hagel introduced the Interest on Business Checking Act of 2001 (S. 229) that deals with two regulatory relief issues. First, S. 229 would allow payment of interest on checking accounts immediately after enactment by allowing depository institutions to make almost daily transfers of funds from checking accounts to interest-bearing accounts for two years following enactment. In these two years, observers expect financial markets to adjust to paying interest on checking accounts. At the end of the two years, S. 229 would repeal the prohibition on paying interest on checking accounts. S. 229 would also allow Federal Reserve Banks to pay interest on required reserve balances. On its introduction the bill was referred to Committee on Banking, Housing, and Urban Affairs. On March 22, 2001, as similar bill, S.601, the Small Business Checking Regulatory Relief Act of 2001 was introduced by Senator Shelby and was also referred to the same committee.

On March 31, Senator Schumer introduced the Small Business Interest Checking Act of 2001, S. 524, which like S. 229 deals with paying interest on business checking and interest on reserves at the Fed. In addition, S. 524 deals with the operational arrangement issue of increasing the Fed's flexibility in setting reserve requirements on checking accounts to the point of possibly eliminating them. The major differences between the two Senate bills are that the S. 229 would limit the Fed to paying interest on *required* reserve balances. By contrast, S.524 would authorize the Fed to pay interest on *all or any portion of* reserve balances, as it sees fit. The other difference is that S. 524 has a provision for financing the Fed's interest payment to financial institutions. Effectively, the government would pay the interest out of the amounts the Federal Reserve Banks usually turn over to the U.S. Treasury.<sup>2</sup> The bill was referred to the Committee on Banking, Housing, and Urban Affairs.

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<sup>2</sup> For more detailed analyses of these provisions, see CRS Report RL30874, *Proposal to Allow Federal Reserve Banks to Pay Interest on Reserve Balances: The Issues Behind the Legislation*, by Walter W. Eubanks; CRS Report RL30816, *Anticipated Effects of Depository Institutions Paying Interest on Checking Accounts*, by Walter W. Eubanks.

There were two House bills in the 107<sup>th</sup> Congress dealing with these issues – the Small Business Interest Checking Act of 2001 (H.R. 974) introduced by Representative Kelly (this bill is similar to S. 524), and the Business Checking Freedom Act of 2001 (H.R. 1009) introduced by Representative Toomey. H.R. 1009 was incorporated in H.R. 974, which was passed by the House on April 3, 2001 and referred to the Senate Committee on Banking, Housing, and Urban Affairs on April 4, 2001. H.R. 974, as amended would end the prohibition against checking account interest as of two years following enactment. As passed, H.R. 974 also authorizes the Federal Reserve to pay interest on reserves, linking two forms of regulatory relief together in a way favored by large banks.<sup>3</sup> This kind of linkage prevented passage of either form in the 106<sup>th</sup> Congress, according to industry followers.<sup>4</sup> The Department of the Treasury supports paying interest on checking accounts of businesses, but does not support paying interest on reserve balances at the Fed. Similar legislation was introduced in the 106<sup>th</sup> and 105<sup>th</sup> Congresses.

## **The Purposes of Federal Reserve Balances**

The Federal Reserve System and depository institutions use reserve balances at the Fed's regional banks to facilitate essentially two functions: inter-depository-institution check clearing, and monetary policy.

### **Facilitate Check Clearing**

Depository institutions maintain reserve balances in the 12 Federal Reserve Banks located around the country – in Atlanta, Minneapolis, New York, San Francisco, and so on. Every depository institution is affiliated with the Bank in its geographic region by maintaining an account balance, among other things, with that regional Fed Bank. For a fee, the Fed provides the interbank service of collecting checks and transferring funds to the various depository institutions accounts throughout the system. The service allows banks to clear billions of checks across the country with little disturbance to the day-to-day operations of depository institutions and their customers. As an outgrowth of this process, depository institutions trade their balances held at the Federal Reserve among themselves every day at the interest rate called the federal funds rate. Using the Fed market, depository institutions finding themselves with shortages of balances at the Fed may borrow from other institutions with excess balances by paying the lending institutions the federal funds rate for the funds to make up the shortfalls.

### **Facilitate Monetary Policy**

The reserve balances that depository institutions maintain at the Fed enable the Fed to influence strongly the amount of money in circulation through open market

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<sup>3</sup> U.S. Congress. House. Committee on Financial Services. *Small Business Interest Checking Act of 2001, Report to Accompany H.R. 974*. 107<sup>th</sup> Congress, 1<sup>st</sup> session, H.Rept. 107-38.

<sup>4</sup> Adam Wasch. Progress on Banking Measures Frozen as Congress Weighs Lame-Duck Session. *BNA's Banking Report*, November 6, 2000, pp. 578-579.

operations. Open market operations are the buying and selling of U.S. government securities, including federal agency securities, to all investors. Through these operations, the Fed may, for example, reduce the money supply by selling investors U.S. government securities and receiving money in exchange. On the other hand, by buying securities the Fed takes in securities and gives depository institutions money in exchange to expand the money supply. The accounts of the depository institutions involved in these open market operations are credited or debited by the Fed. Open market operations, through reserve balances at the Fed, are a smooth, efficient method of influencing the money supply.

## The Level of Reserve Balances at the Fed

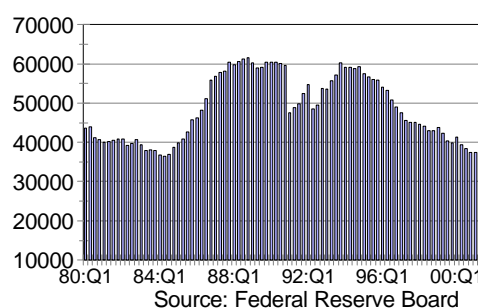
The reserve balances that a depository institution maintains at the Fed fall into three categories: required reserves, required clearing reserves, and excess reserves. The level of economic activity affects the level of these balances because they are generally tied to the amount of economic transactions taking place in the economy. More checks are written with higher levels of economic activity.

### Required Reserves

The level of required reserves is based on the portion of the depository institutions' transaction deposit accounts that the Fed requires them to set aside. In other words, the Fed requires depository institutions to set aside as required reserves a certain fraction of the checking deposits they take in. Before 1959, the Federal Reserve required that the amount set aside be kept at a regional Federal Reserve Bank. Today, by Fed regulation, depository institutions have discretion in deciding whether required reserves are kept in the form of vault cash at the institution or balances at the Fed. Required reserves, therefore, refer to designated reserve balances held as vault cash and as deposits at the Fed.<sup>5</sup>

It is also important to note that only large depository institutions have to hold required reserves at the Fed. For smaller depository institutions, under current regulations, no reserves are required for reservable liabilities (i.e., transaction accounts) under \$4.7 million. Moreover, reservable liabilities between \$4.7 and \$47.8 million are subject to a minimal reserve of 3%. This means that most small banks do not have to post any required reserves,

**Figure 1**  
**Total Required Reserves**  
(1980:Q1 -- 2001:Q4), in \$ millions



Source: Federal Reserve Board

<sup>5</sup> Note: Required reserves are not an emergency store of liquidity or capital requirements to buffer against losses. However, since depository institutions have to maintain daily required reserve balances on a 2-week-average basis, depositories may use required reserves in day-to-day operations for other temporary transaction purposes and make adjustments later.

and, where they do, the requirements are met entirely with vault cash. Consequently, the Federal Reserve Board has estimated that only the upper one fifth of depository institutions would be directly affected by allowing the Fed to pay interest on reserve balances held with them.<sup>6</sup> Large depository institutions hold the lion's share of deposits in an increasingly concentrated sector.<sup>7</sup>

Total required reserve balances, the sum of balances held at the Fed and vault cash at the institutions, are shown in Figure 1. The data in these figures are quarterly averages. Note that the total required reserve balance is at about the same level as it was in the 1980s, averaging about \$40 billion. The concerns that brought about the legislation in Congress are made clearer in examining the two components of required reserves separately.

**Reserve Balances at the Fed.** Figure 2 clearly shows that required reserve balances at the Fed have been declining. Required reserve balances fell from a high of almost \$37 billion in 1988 to less than \$4 billion at the end of 1999. In 2000 the level is now back to little less than \$6 billion. The decline is partly attributable to changes in Fed regulations and policies that were authorized by the Monetary Control Act of 1980. The Fed quickly eliminated required reserves on savings accounts and lowered those applicable to transaction accounts.<sup>8</sup>

In 1981, the Fed lowered reserve requirements further.<sup>9</sup> It is difficult to determine what part of the decline shown in Figure 2 beginning in 1980 was due to the decline in economic activity and what part to the decline in reserve requirements.

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<sup>6</sup> Letter from Donald L. Kohn, Director of the Division of Monetary Affairs, Board of Governors of the Federal Reserve System to William L. McQuillan, President of the Independent Bankers Association of America in: U.S. Congress. House of Representatives. *H.R. 1585—Depository Institution Regulatory Streamlining Act of 1999*, Hearing before the Subcommittee of Financial Institutions and Consumer Credit of the Committee on Banking and Financial Services, 106<sup>th</sup> Congress, 1<sup>st</sup> session, May 12, 1999, p. 193.

<sup>7</sup> As of August 2000, there were 8,518 commercial banks in the U. S.; the top 379 held 98% of total deposits, according the Federal Deposit Insurance Corporation's (FDIC) statistics.

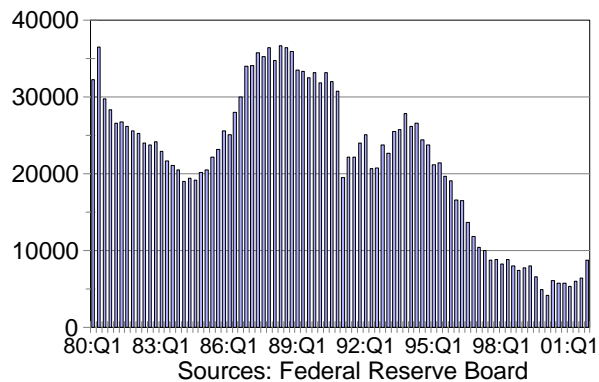
<sup>8</sup> See Joshua N. Feinman, Reserve Requirements: History, Current Practice, and Potential Reform, *Federal Reserve Bulletin*, June 1993: pp. 578, 580-81.

<sup>9</sup> See *Federal Reserve Bulletin*, March 1981, pp. 247-249.



But in 1991, when another reduction in requirements occurred, the decline in balances was dramatic, with almost a \$12 billion drop in one quarter. Required reserves at the Fed began to decline further in 1994 when the Fed allowed retail sweep accounts. Retail sweep accounts are accounts on which depository institutions use computer programs to transfer customers' transaction deposits (checking deposits), which are subject to reserve requirements, temporarily into savings accounts, which are non-reservable accounts.

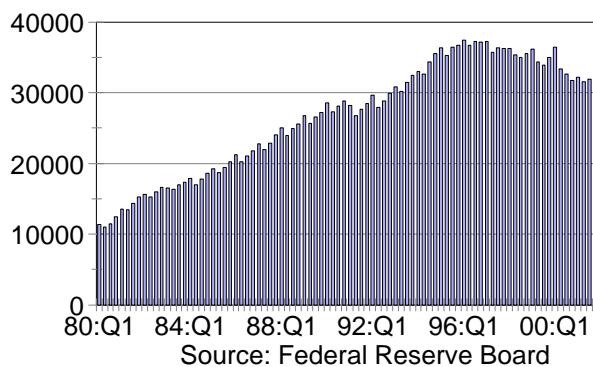
**Figure 2**  
**Required Reserve Balances at the Fed**  
(1980:Q1 -- 2001:Q4), in \$ millions



The required reserve balances at the Fed are regulated by a flexible process. By Fed regulation, depository institutions must maintain only an average required reserve balance over a two-week period. Thus, depository institutions have the flexibility of adjusting the daily balances they hold for this purpose. For example, a depository institution caught in an emergency demand for cash could actually convert its required or other balances into cash without any penalties within this two-week period. Later in the period, the institution must maintain above average balances at the Fed to be able to maintain the average reserve requirement over the two-week period.

**Vault Cash.** While required reserve balances at the Fed have declined, the amount of required reserves that is held as vault cash has grown. In 1980 depository institutions kept one third of their required reserves in the form of vault cash. With Fed regulations and policies permitting, by 2000, they kept between 78% and 85% of their required reserves as vault cash. It is important to make the distinction between total vault cash and required reserves that are held as cash. Figure 3 shows only the required reserve balances held as vault cash. Depository institutions hold a larger amount of vault cash than needed for required reserve purposes. The main determinant of vault cash, however, is economic transactions.

**Figure 3**  
**Vault Cash Balances**  
(1980:Q1--2001:Q4), in \$ million



Neither vault cash nor reserve balances at the Fed pay any interest. But vault cash is preferred to reserve balances at the Fed mainly because it offers more flexibility. The growth in vault cash as a proportion of reserves is partly due to wider use of automated teller machines (ATMs). From 1993 to the end of 1999, the number of U.S. on-premise bank-owned ATMs grew from 70,000 to approximately 110,000.<sup>10</sup> Cash waiting to be withdrawn in an ATM either on-premise or off-premise is considered vault cash. As a result, vault cash simultaneously provides depository institutions fulfillment of their reserve requirements, and is available for precautionary and transaction purposes. In contrast, its major disadvantages are that it does not earn interest, it is not at the Fed for interbank check clearing purposes and it does not facilitate the operations of monetary policy as such.

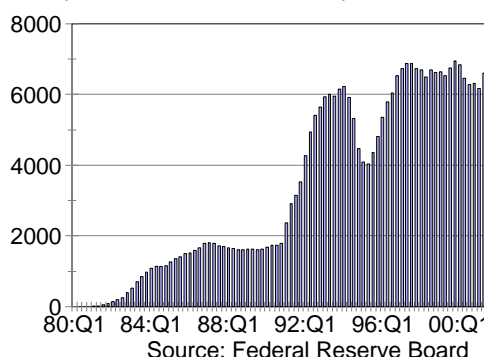
## Required Clearing Reserves

Clearing balances were established in the early 1980s to avoid overdraft penalties. They have been a growing part of reserve balances at the Fed, totaling almost \$8 billion in the last quarter of 2001, but have slightly declined recently, as shown in Figure 4. Clearing balances are voluntary, but, once they are agreed to, they become required. Depository institutions may voluntarily enter into an agreement with the Fed to hold clearing balances at the Fed. Under this agreement, depository institutions

commit in advance to holding a specified balance, above the normal required reserve balances. "Required clearing balances provide a cushion against overnight overdrafts.... If the depository institution fails to satisfy its required clearing balance, the deficiency is subject to a charge."<sup>11</sup> Clearing balances, like required reserve balances at the Fed, must be maintained on average, over the two-week reserve maintenance period.<sup>12</sup>

To offset the cost (opportunity cost) of holding clearing balances, the Fed pays the institutions a credit at approximately the federal funds rate. These credits can only be used to defray Fed charges for services it provides, such as check clearing and wire

**Figure 4**  
**Required Clearing Balances at the**  
(1980:Q1 -- 2001:Q4), in \$ millions



<sup>10</sup> ATM Use Is Growing, But So Are Visits To The Teller, *Bank Network News*, Volume 18, Number 23, April 27, 2000. p. 7.

<sup>11</sup> See Cheryl L. Edwards, *Federal Reserve Bulletin*, November 1997: p.861.

<sup>12</sup> See Statement of Laurence H. Meyer, Member, Board of Governors of the Federal Reserve System, before the Committee of Banking and Financial Services, United States House of Representatives, May 3, 2000 [<http://www.house.gov/banking/5300mey.htm>].

transfers.<sup>13</sup> Depository institutions accumulate the credits when earnings on clearing balances exceed Fed services used. Figure 4 shows that while clearing balances have grown with economic transactions and are now greater than required reserve balances held at the Fed (Figure 2), they have yet to reach the historic levels of required reserves (Figure 1).

## Excess Reserves

Besides required reserves, depository institutions voluntarily maintain reserves at the Fed in excess of required and clearing reserves. These reserves, which are held mainly for precautionary purposes, are called excess reserves. Excess reserves are generated by the interbank payment process, where the Fed serves as a clearing house for banking transactions and for which it

charges fees. Because of the dollar amount variations involved in the check clearing reconciliation process, some analysts consider excess reserves as residuals that are generated mainly by overshooting needed balances rather than a voluntary or a required balance. The almost \$6 billion spike in excess reserves in the third quarter of 2001 was due to added liquidity the Federal Reserve provided depository institutions in response to the 9/11 attacks on New York and Washington.

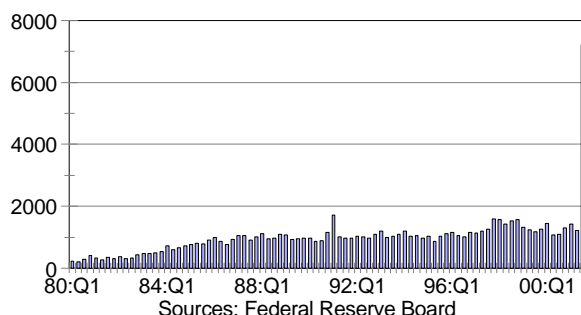
Comparing Figure 1 to Figure 5 shows that the amount of excess reserve balances held at the Fed is usually considerably smaller than required reserves. Excess reserve balances depend mainly on the ebbs and flows of economic transactions. Consequently, excess reserve balances tend to be subject to short term variations. Even though there is an upward trend in excess reserves, the magnitude and growth are not large enough to offset the decline in required reserves as shown in Figure 2. The quarterly average excess reserve balance is less than a billion dollars in comparison to the comparable average for required reserve balances of \$23 billion over the 1980–2000 period.

## Reserve Balances at the Fed: a Summary

In sum, these three categories of reserve balances at the Fed -- required, required clearing, and excess reserves -- totaled close to \$14 billion in December 2000. That is less than half of what required reserve balances at the Fed were in

**Figure 5**

**Excess Reserve Balances at the Fed**  
(1980:Q1 -- 2001:Q4), in \$ millions



Sources: Federal Reserve Board

<sup>13</sup> Ibid.

1980, when the economy was much smaller. The long term decline in required balances at the Fed has not been offset by the growing levels of the excess and clearing balances. It is also clear from Figure 2 and the Fed data supporting Figure 2 that the decline in required reserves was caused in part by the Fed's policy authorized by Congress to reduce reserve requirements.

## **How Depository Institutions Manage Reserve Balances**

### **Managing a Single Deposit Account at the Fed**

Under the present payment system, the management of reserve balances at Federal Reserve Banks is a critical part of depository institutions' overall asset and liability strategic management. These balances, regardless of whether they are required, excess, or held for clearing purposes, are held in an aggregated account at the Federal Reserve Banks. At the Fed, there is basically one account per institution: *The deposit [balance] is neither a distinct type nor separate category of deposit: all of the funds are available to settle interbank payments and may be converted to vault cash if necessary.*<sup>14</sup> Since the balance in this account is used for many purposes, and shortages expose the institution not only to costly penalties but also to failed commercial transactions, a depository institution by necessity must manage its reserve balances as part of its overall financial resources management.

### **The Profit Motive**

Management of required reserve balances at the Fed is important to the profitability of a depository institution. To illustrate one profit consideration, depository institutions must maintain only an average required reserve balance over a two-week period for required reserves and required clearing reserves, as described earlier. Thus, depository institutions have the flexibility of adjusting the daily balances they hold for these purposes. If the institution's commercial and interbank clearing needs exceed its balances at the Fed, it may use its required reserve balances at the Fed to meet those needs without incurring any overdraft penalties within this two-week period. In the period, the institution must maintain above-average balances at the Fed in order to have the average reserve requirements over the two-week period. These financial resources to meet required reserves at the Fed would otherwise have been available for profitable investment opportunities. Although the institution avoided penalties, it is likely to have suffered the cost of having forgone investment opportunities.

Depository institutions seek to keep their reserve balances under their control as much as possible in order to be able to maximize profits. Using December 2000 to illustrate, depository institutions' required reserves totaled \$41.1 billion. Depository institutions met these requirements with \$31.8 billion in vault cash (Figure

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<sup>14</sup> See Anderson Richard G. and Robert N. Rasche. p. 6.

3) and \$8.7 billion in required reserve balances at Federal Reserve Banks. Depository institutions held only \$1.5 billion in excess reserves and \$16.6 billion in clearing balances at the Fed. The bulk of the required reserves is under the direct control of depository institutions' management, not the Fed. In contrast, before 1959, all required reserves were held at the Fed. Allowing depository institutions to keep a part of their required reserves as vault cash allows them to find the optimum commercial use of these funds, while meeting their reserve requirements. The idle reserve (earning no interest) balances at the Fed are clearly being minimized.

## **The Danger of Relying Too Heavily on Vault Cash**

Depository institutions' strategy of holding on to required balances has its dangers. For example, the Fed strongly discourages overnight overdrafts, with hefty fees among other penalties.<sup>15</sup> In the 1980s, right after the Fed lowered reserve requirements, some depository institutions had difficulty managing their reserve balances at the Fed. They were relying heavily on vault cash to meet their required reserves and lacked reserves at the Fed to clear their interbank transactions. Some institutions found overdrafts of their Fed accounts, resulting in a large number of penalties, were a serious problem. Subsequently, required clearing reserve balances were established.

Again, in early 1991, the requirements were abruptly lowered, which caused extreme volatility in short-term interest rates. This volatility was evident, "when the federal funds rate daily trading range averaged around 8 percentage points compared with about 1.5 percentage points in normal times."<sup>16</sup> The Fed attributed this volatility to the fact many depository institutions' reserve balances at the Fed fell below the level they needed to hold against overdrafts. Since there were lower balances, the base was smaller than normal. This caused the price to rise more than normal. The price and quantity effect are shown in Figures 2 and 6. There was a drop in required reserve balances of almost \$12 billion in the first quarter of 1991 (see Figure 2) and a rise in the federal funds rate to almost 11% (see Figure 6).

## **If the Fed Pays Interest on Reserve Balances**

Critical factors in determining the financial impact of the Fed paying interest to depository institutions are the interest rate paid relative to prevailing rates and the size of reserve balances on which it will be paid. According to Federal Reserve Governor Laurence H. Meyer in testimony before the House Banking Committee, the Fed intends to pay a rate below the federal funds rate on required reserve balances.

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<sup>15</sup> Required reserve deficiencies are subject to a significant penalty rate at the Fed discount window and "administrative counseling" or a penalty federal funds rate. See Richard G. Anderson and Robert N. Rasche, *Measuring the Adjusted Monetary Base in an Era of Financial Change*, *Federal Reserve Bank of St. Louis*, November/December 1996: p. 6.

<sup>16</sup> See Joshua N. Feinman, *Federal Reserve Bulletin*, June 1993: p. 582.

*If the bill becomes law, the Federal Reserve would likely pay an interest rate on required reserve balances close to the rate on other risk-free money market instruments, such as repurchase agreements. This rate is usually a little less than the interest rate on federal funds transactions, which are uncollateralized overnight loans of reserves in the interbank market.<sup>17</sup>*

Since most interest rates are above the federal funds rate, depository institutions are not expected to significantly shift their financial resources to take advantage of this rate.

Most financial analysts expect depository institutions will shift their required reserves from vault cash to balances at the Fed. Vault cash is a non-income-earning asset that is a component of required reserves and can be easily shifted to Fed balances.

The legislation before Congress would permit the Fed to pay interest on all or specific types of balances if it sees fit. Payment of interest on total reserves at the Fed might be administratively the simplest and least costly approach. It would be least costly because it would minimize the incentives for depository institutions to shift reserve balances among the various types of reserves.<sup>18</sup>

As earnings to depository institutions, the interest payments could increase profits as the cost of offering transaction deposit accounts would be reduced. In a competitive environment, however, the depository institutions would likely pass the increase in earnings onto their consumers, leaving their profits unchanged. Sweep accounts will be reduced, but the remaining ones are expected to be profitable for depository institutions. The sweep accounts that would be eliminated would become reservable accounts and, thus, a source of reserve balances at the Fed.

In sum, it is reasonable to expect depository institutions to maintain higher balances at the Fed with most of these balances coming from idle vault cash, but some additional balances at the Fed might come from a reduction of sweep accounts.

## **Two Agencies' Positions on the Legislation in the 106<sup>th</sup> Congress**

### **The Federal Reserve**

The Fed has supports legislation that would allow it to pay interest on reserves depository institutions maintained at its banks. The Federal Reserve supported similar legislation in the 106<sup>th</sup> and the 105<sup>th</sup> Congresses. The Federal Reserve made the

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<sup>17</sup> Meyer testimony before House Committee on Banking and Financial Services, May 3, 2000, *Op. Cit.*

<sup>18</sup> From the perspective of a depository institution, this shifting of balances would create inefficiencies as the shifting tends to increase the risk of shortages of specific balances.

argument that the legislation would help to improve economic efficiency by enhancing the operation of monetary policy and making the banking industry more competitive with non-depository financial intermediaries.<sup>19</sup> Economic efficiency would be improved because earning interest on reserve balances would reduce the depository institutions' cost of doing their business as financial intermediaries. These institutions have long argued that forgone earnings on Fed balances put them at a competitive disadvantage relative to non-depository competitors. For example, securities and other competing firms offer transaction accounts through higher-earning money market mutual funds and Eurodollar deposits than depository institutions can offer. To reduce the cost of offering their customers similar products, depository institutions must have incurred the cost of developing and maintaining the technology to do daily sweeps of transaction accounts. The resources used in maintaining these accounts would now be available to engage in more productive activities.

The Fed also points out that the cost of paying interest on reserve balances is relatively small when compared to the Federal Reserve System's deposits to the U.S. Treasury.<sup>20</sup> The Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) estimate that to pay interest on required reserve balances will cost between \$600 and \$700 million over 5 years. CBO recognizes in its estimate that with the expected larger balances at the Fed, the Fed may invest them in higher-earning government securities. Potentially, the return from these government securities offset the \$600 to \$700 million the Fed paid to attract these balances.<sup>21</sup> In other words, the difference in the interest paid to attract the additional reserve balances and what the Fed would earn on its investments might result in a net gain for the Treasury.<sup>22</sup> This gain would still be small compared to the annual Federal Reserve Treasury Deposits shown in Figure 7, estimated to total almost \$25.6 billion in fiscal year 2002.

Eliminating potential interest rate volatility<sup>23</sup> is an argument the Fed used in support of S. 576 and H.R. 4209 in the 106th Congress. The evidence in support of this argument was the federal funds rate volatility in early 1991, when the federal funds rate daily trading range averaged around 8 percentage points compared with about 1.5 percentage points in normal times.<sup>24</sup> The Fed attributes this volatility to the

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<sup>19</sup> Ibid.

<sup>20</sup> These are Fed receipts paid to the Treasury. They are sometimes confused with the Fed surpluses, which are the retained earnings of the Federal Reserve System that are kept on hand and which are equal to its paid in capital.

<sup>21</sup> U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs. *Financial Regulatory Relief and Economic Efficiency Act of 1999*, report to accompany S. 576, 106th Cong., 1<sup>st</sup> sess., S. Rept. 106-11 (Washington: GPO, 1999).

<sup>22</sup> If the additional balances come from vault cash, gain to the Treasury would be less certain, at least from a social welfare point of view, where vault cash would be available for use for any purpose.

<sup>23</sup> See CRS Report 98-416 E, *Payment of Interest by the Federal Reserve to Depository Institutions: An Analysis*, by G. Thomas Woodward.

<sup>24</sup> Figure 6 shows that the average daily federal funds rate for the year. A high variance of 8% (continued...)

fact that in 1991 many depository institutions' reserve balances at the Fed fell below the level they needed to hold. Overdrafts occurred massively, causing the fed funds rate to rise rapidly. While the rationale for the 1991 episode remains true, the data shown in Figure 6 suggest that the Fed and depository institutions were able to make the necessary adjustments to prevent such volatility from recurring for the rest of the year. The rapid rise in the federal funds rate occurred in late January 1991. A chart of the daily federal funds rate since 1991 would show no other such episodes. This suggests that the Fed and the depository institutions have been able to manage interbank transactions and monetary policy without widespread volatility in interest rates in general, despite the continued decline in reserve balances at the Fed.

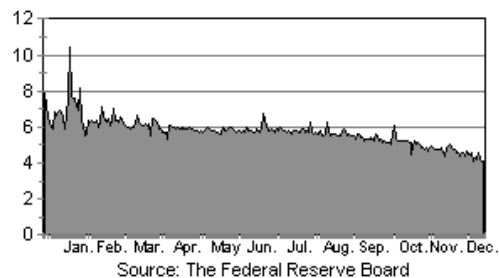
Improvements in reserve balance management might explain why there has been little evidence of interest rates volatility and monetary policy ineffectiveness. Both the Federal Reserve System and the depository institution sector have developed technology, reserves and cash management strategies, and procedures that have helped to improve interest rate stability and monetary policy effectiveness. Specifically: (1) the Fed has made enormous steps in improving

the timeliness of providing account information to depository institutions, (2) more frequent open market operations are increasingly geared to daily payment needs, (3) a shift to lagged reserve requirements gives depositories and the Fed reserve advance information on the demand for reserves, (4) improved procedures allow estimating reserve demand, and (5) since 1994, the Fed has allowed depository institutions to sweep transaction accounts to help reduce reserve balances.<sup>25</sup> All these factors, which are within the existing regulatory authority of the Fed, have helped to reduce the need for larger reserve balances at the Fed.

**Figure 6**

**Daily Federal Funds Rate**

January -- December 1991, in Percent



## The Treasury and Revenue Losses

As in the past last three Congresses, the Department of the Treasury has consistently refused to support legislation that would allow the Federal Reserve to pay depository institutions interest on Fed balances. The main reason for Treasury's position has been that paying interest on reserves is very likely to reduce revenues it receives in the form of Federal Reserve Treasury Deposits. These deposits are

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<sup>24</sup> (...continued)

cannot be observed. The overall annual variance for 1991 was also lower than 1.5 percentage points for the year. In fact, it was .74 percentage point.

<sup>25</sup> Statement of Laurence H. Meyer, member, Board of Governors of the Federal Reserve System, before the Committee of Banking and Financial Services, United States House of Representatives, May 3, 2000 [<http://www.house.gov/banking/5300mey.htm>].

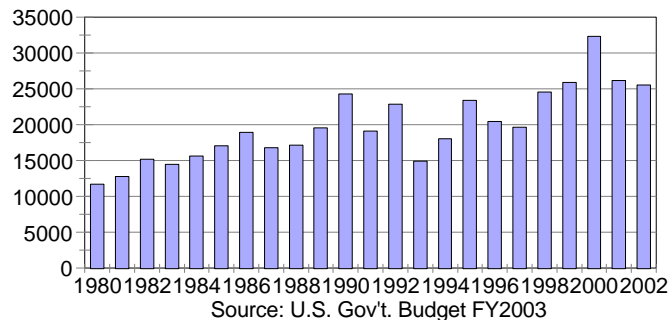


earnings by the Federal Reserve System. It is estimated that for fiscal year 2002 the Federal Reserve Treasury Deposits will be almost \$25.6 billion (see Figure 7). The Treasury and CBO conclude that this legislation will reduce federal revenues.

In the 105<sup>th</sup> and the 106<sup>th</sup> Congresses, Treasury's position has been that, if the Fed pays interest on reserve balances, that would shift revenues from the taxpayers to the banking industry. In the 105<sup>th</sup> Congress, when the federal budget surplus was less certain, Treasury also argued that there were many high priority claims on

scarce federal budget resources and there was a failure to identify an acceptable offset to loss of these revenues.<sup>26</sup> In the 106<sup>th</sup> Congress, Treasury did not support H.R. 4209 for similar reasons. Treasury, speaking for the Administration, pointed out that paying interest on just the required reserve balances would cost the Treasury between \$600 and \$700 million over 5 years.<sup>27</sup> At the time required reserve balances had fallen to about \$5 billion.

**Figure 7**  
**Federal Reserve Treasury Deposit**  
(FY1980-FY2002), in \$ millions



The most of the bills in the 107<sup>th</sup> Congress would authorize interest on required reserve balances only, and since required reserve balances at the Fed have risen about to about \$9 billion at the end of 2001, the CBO and OMB estimates are likely to be valid for most of these bills. However, the CBO estimate was stated differently in its April 3, 2001 cost estimate of H.R. 974. The estimate was that the bill would not have any net effect on annual revenues over the 2002-2006 period, but would decrease revenues after 2006. That revenue loss would total approximately \$1.2 billion over the 2006-2011 period. On the other hand, if the Fed had to pay interest on all the reserves it holds for depository institutions, the budgetary impact would be greater than these estimates. In December 2001, these reserves were twice as much as required reserves, \$18.6 billion and would grow as a result of paying interest on them.

<sup>26</sup> Statement of Richard S. Carnell, Treasury Assistant Secretary for Financial Institutions, before the Subcommittee on Financial Institution and Consumer Credit, House Committee on Banking and Financial Services, United States House of Representatives, July 16, 1998 [<http://www.house.gov/banking/71698car.htm>].

<sup>27</sup> Statement of Gary Gensler, Treasury Under Secretary, before the House Banking and Financial Services Committee, United States House of Representatives, May 3, 2000. [<http://www.house.gov/banking/5300gen.htm>]. The CBO and OMB estimates that were referred to in the statement also recognized the possibility of an increase in revenues.