

FEDERAL RESERVE SYSTEM  
[Docket No. OP-1241]  
Federal Reserve Bank Services

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Notice.

**SUMMARY:** The Board has approved the 2006 fee schedules for Federal Reserve priced services and electronic access and a private-sector adjustment factor (PSAF) for 2006 of \$117.7 million.

These actions were taken in accordance with the requirements of the Monetary Control Act of 1980, which requires that, over the long run, fees for Federal Reserve priced services be established on the basis of all direct and indirect costs, including the PSAF. The Board has also approved maintaining the current earnings credit rate on clearing balances.

**DATES:** The new fee schedules become effective January 3, 2006, except the FedLine Select electronic connection fees, which become effective April 1, 2006.

**FOR FURTHER INFORMATION CONTACT:** For questions regarding the fee schedules: Jack K. Walton II, Associate Director, (202/452-2660); Jeremy R. Mandell, Financial Services Analyst, (202/452-2842), Division of Reserve Bank Operations and Payment Systems. For questions regarding the PSAF and earnings credits on clearing balances: Gregory L. Evans, Assistant Director, (202/452-3945); Brenda L. Richards, Manager, Financial Accounting, (202/452-2753); or Jonathan Mueller, Financial Analyst, (202/530-6291), Division of Reserve Bank Operations and Payment Systems. For users of Telecommunications Device for the Deaf (TDD) only, please call 202/263-4869. Copies of the 2006 fee schedules for the check service are available from the Board, the Federal Reserve Banks, or the Reserve Banks' financial services web site at [www.frb.services.org](http://www.frb.services.org).

**SUPPLEMENTARY INFORMATION:**

**I. PRICED SERVICES**

A. Discussion – From 1995 through 2004, the Reserve Banks recovered 97.5 percent of their total expense (including special project costs and imputed expenses) and targeted after-tax profits or return on equity (ROE) for providing priced services.<sup>1</sup>

Table 1 summarizes 2004, 2005 estimated, and 2006 budgeted cost recovery rates for all priced services. Cost recovery is estimated to be 103.6 percent in 2005 and budgeted to be 102.5 percent in 2006. The performance of the check service heavily influences the aggregate cost recovery rates and accounts for approximately 80 percent of the total cost of priced services. The electronic services (FedACH<sup>SM</sup>, the Fedwire<sup>®</sup> funds service and national settlement service (NSS), and the Fedwire<sup>®</sup> securities service) account for approximately 20 percent of total costs.<sup>2</sup> The noncash collection service represents a *de minimis* amount of total costs and, by year-end 2005, the Reserve Banks will exit the service.

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<sup>1</sup> These imputed expenses, such as taxes that would have been paid, and the return on equity that would have to be earned had the services been furnished by a private business firm, are referred to as the PSAF. The ten-year recovery rate is based upon the pro forma income statements for Federal Reserve Banks' priced services published in the Board's *Annual Report*.

<sup>2</sup> FedACH and Fedwire are registered servicemarks of the Reserve Banks.

Table 1

<b>Aggregate Priced Services Pro Forma Cost and Revenue Performance<sup>a</sup></b>					
<b>(\$ millions)</b>					
<b>YEAR</b>	<b>1<sup>b</sup></b> <b>REVENUE</b>	<b>2<sup>c</sup></b> <b>TOTAL</b> <b>EXPENSE</b>	<b>3</b> <b>NET INCOME</b> <b>(ROE)</b> <b>[1-2]</b>	<b>4<sup>d</sup></b> <b>TARGET</b> <b>ROE</b>	<b>5</b> <b>RECOVERY</b> <b>RATE AFTER</b> <b>TARGET ROE</b> <b>[1/(2+4)]</b>
2004	914.6	842.6	72.0	112.4	95.8%
2005 (estimate)	958.2	821.8	136.4	102.9	103.6%
2006 (budget)	911.1	817.1	94.0	72.0	102.5%

<sup>a</sup> Calculations in this table and subsequent pro forma cost and revenue tables may be affected by rounding.

<sup>b</sup> Revenue includes net income on clearing balances (NICB). Clearing balances are assumed to be invested in a broad portfolio of investments, such as Treasury securities, government agency securities, commercial paper, municipal and corporate bonds, and money market and mutual funds. To impute income, a constant spread is determined from the historical average return on this portfolio and applied to the rate used to determine the cost of clearing balances. NICB equals the imputed income from these investments less earnings credits granted to holders of clearing balances. The cost of earnings credits is based on the discounted three-month Treasury bill rate.

<sup>c</sup> The calculation of total expense includes operating, imputed, and other expenses. Imputed and other expenses include taxes, FDIC insurance, Board of Governors' priced services expenses, the cost of float, and interest on imputed debt, if any. Credits or debits related to the accounting for pensions under FAS 87 are also included.

<sup>d</sup> Target ROE is the after-tax ROE included in the PSAF. The 2006 target return on equity is lower than it has been historically because of a Board-approved change to the method used to calculate the targeted return on equity.

Table 2 presents an overview of the 2004, 2005 budget, 2005 estimate, and 2006 budget cost recovery performance by priced service.

Table 2

<b>Priced Services Cost Recovery</b>				
<b>(percent)</b>				
<b>PRICED SERVICE</b>	<b>2004</b>	<b>2005 BUDGET</b>	<b>2005 ESTIMATE</b>	<b>2006 BUDGET<sup>a</sup></b>
All services	95.8	100.1	103.6	102.5
Check	94.6	100.3	104.0	102.3
FedACH	103.0	100.4	102.2	101.0
Fedwire funds and NSS	99.4	100.1	101.4	105.6
Fedwire securities	102.6	102.8	101.3	105.9
Noncash collection	120.3	76.7	90.9	n.a.

<sup>a</sup> 2006 budget figures reflect the latest data from Reserve Banks. The Reserve Banks will transmit final budget data to the Board in November 2005, for Board approval in mid-December 2005.

n.a. – not applicable

1. 2005 Estimated Performance – In 2005, the Reserve Banks estimate that they will recover 103.6 percent of the costs of providing priced services, including imputed expenses and targeted ROE, compared with a budgeted recovery rate of 100.1 percent, as shown in table 2. The

Reserve Banks estimate that all services will achieve full cost recovery with the exception of the noncash collection service, from which the Reserve Banks will exit by year end. The Reserve Banks estimate that they will fully recover actual and imputed expenses and earn net income of \$136.4 million compared with the target of \$102.9 million. This greater-than-expected net income is largely driven by greater-than-expected 1) check volumes, 2) cost savings associated with the Reserve Banks' check restructuring efforts, and 3) net income on clearing balances (NICB).

The decline in paper check volume continues to have a significant effect on the Reserve Banks priced services.<sup>3</sup> Check use nationwide has been declining, in part because of the increased use of debit and credit cards, as well as the growing trend for merchants, billers, and others to covert checks into automated clearinghouse (ACH) transactions. These factors have led to a general decline in the interbank clearing of checks, including clearings through the Reserve Banks. In this environment, to meet their cost recovery objectives, the Reserve Banks have undertaken efforts to reduce the costs associated with the check service, including reducing the number of check processing sites from forty-five in 2003 to twenty-two by the end of 2006.

2. 2006 Projected Performance – For 2006, the Reserve Banks project a priced services cost recovery rate of 102.5 percent. The 2006 fees for priced services are projected to result in a net income of \$94.0 million, or \$22.0 million more than needed to achieve full cost recovery. The major risks to the Reserve Banks' ability to achieve their budget targets are a greater decline in the Reserve Banks' check volume than the projected 13.8 percent, unanticipated problems with check office restructurings that could result in significant cost overruns, and greater-than-expected

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<sup>3</sup> The Federal Reserve's 2004 retail payments research indicated that the total number of checks paid declined at an average annual rate of 4.3 percent from 2000 to 2003. This rate of decline is greater than the 3.3 percent average annual rate estimated to have occurred from 1995 to 2000. See Gerdes, Geoffrey R. and Jack K. Walton II, "Trends in the Use of Payment Instruments in the United States," Federal Reserve Bulletin, Spring 2005, pp. 180-201. (See [http://www.federalreserve.gov/pubs/bulletin/2005/spring05\\_payment.pdf](http://www.federalreserve.gov/pubs/bulletin/2005/spring05_payment.pdf).)

electronic payments volume loss to competitors. In light of these risks, the Reserve Banks will continue to refine their business and operational strategies to improve efficiency and reduce excess capacity and other costs. These strategies will position the Reserve Banks to achieve their financial and payment system objectives and statutory requirements over the long run.

3. 2006 Pricing – The following summarizes the changes in the Reserve Banks' fee schedules for priced services in 2006:

#### Check

- The Reserve Banks will raise paper check fees for forward-collection check products 5.3 percent, return-check products 5.4 percent, and payor bank check products 5.3 percent.
- The Reserve Banks will decrease Check 21 fees for FedForward products 13.8 percent and to offer incentives to customers to use FedReceipt products.
- With the 2006 fee change, the price index for the check service will have increased 49 percent since 1997.

#### FedACH

- The Reserve Banks will reduce the input file fee one-third and the FedLine Web origination returns and notification of change fee 40 percent.
- With the 2006 fee change, the price index for the FedACH service will have decreased 63 percent since 1997.

#### Fedwire funds and national settlement

- The Reserve Banks will raise the surcharge for offline funds transfers by one-third.

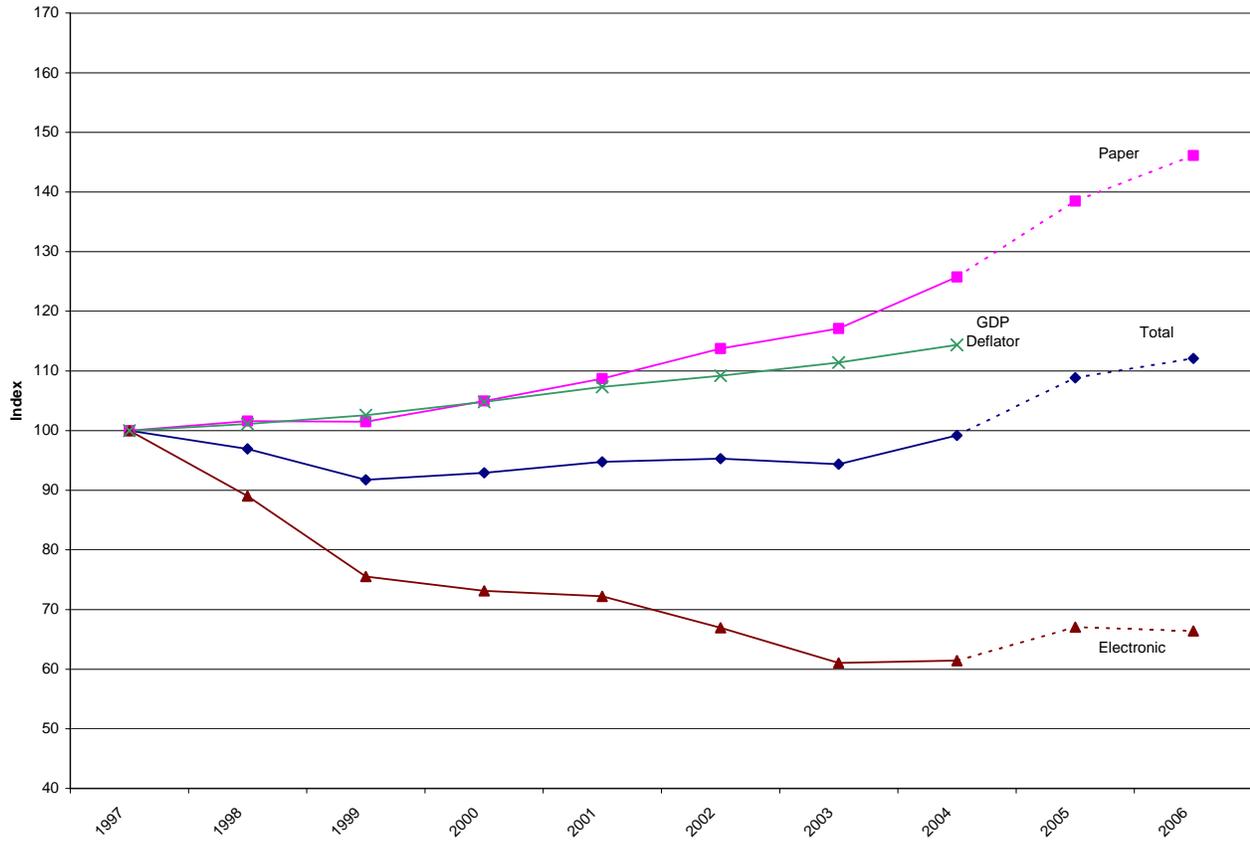
- With the 2006 fee change, the price index for the Fedwire funds and national settlement services will have decreased 57 percent since 1997.

#### Fedwire securities

- The Reserve Banks will raise the surcharge for offline securities transfers 51.5 percent and the joint custody fee 14.3 percent.
- With the 2006 fee change, the price index for the Fedwire securities service will have decreased 47 percent since 1997.

4. 2006 Price Index – Figure 1 compares indexes of fees for the Reserve Banks’ priced services with the GDP price deflator. Compared with the price index for 2005, the price index for all Reserve Bank priced services is projected to increase 3.0 percent in 2006. The price index for electronic payment services, as well as electronic access to Reserve Banks’ priced services, is projected to decrease 1.0 percent in 2006. The price index for the paper-based payments services is projected to increase 5.4 percent in 2006. When projecting out to 2006, the price index for all priced services has increased a total of 12.1 percent since 1997. In comparison, from 1997 through 2004, the GDP deflator increased 14.4 percent.

**FIGURE 1**  
**PRICE INDEXES FOR FEDERAL RESERVE PRICED SERVICES**



B. Earnings Credits on Clearing Balances – The Board has approved maintaining the current rate of 80 percent of the three-month Treasury bill rate to calculate earnings credits on clearing balances.<sup>4</sup> The Reserve Banks will continue to calculate earnings credits for the marginal reserve requirement adjusted portion of clearing balances at the federal funds rate.<sup>5</sup>

Clearing balances were introduced in 1981, as a part of the Board’s implementation of the Monetary Control Act, to facilitate access to Federal Reserve priced services by institutions that did not have sufficient reserve balances to support the settlement of their payment transactions. Beginning in 2004, the earnings credit calculation was changed from using the federal funds rate to using a percentage discount on a rolling thirteen-week average of the annualized coupon equivalent yield of three-month Treasury bills in the secondary market to better align Federal Reserve policy with market practice. Earnings credits can be used only to offset charges for priced services, are

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<sup>4</sup> Two adjustments are applied to the earnings credit rate so that the return on clearing balances at the Federal Reserve is comparable to what the DI would have earned had it maintained the same balances at a private-sector correspondent. The “imputed reserve requirement” adjustment is made because a private-sector correspondent would be required to hold reserves against the respondent’s balance with it. As a result, the correspondent would reduce the balance on which it would base earnings credits for the respondent because it would be required to hold a portion, determined by its marginal reserve ratio, in the form of non-interest-bearing reserves. For example, if a DI held \$1 million in clearing balances with a correspondent bank and the correspondent had a marginal reserve ratio of 10 percent, then the correspondent bank would be required to hold \$100,000 in reserves, and it would typically grant credits to the respondent based on 90 percent of the balance, or \$900,000. This adjustment imputes a marginal reserve ratio of 10 percent to the Reserve Bank.

The “marginal reserve requirement” adjustment accounts for the fact that the respondent can deduct balances maintained at a correspondent, but not the Federal Reserve, from its reservable liabilities. This reduction has value to the respondent when it frees up balances that can be invested in interest-bearing instruments, such as federal funds. For example, a respondent placing \$1 million with a correspondent rather than the Federal Reserve would free up \$30,000 if its marginal reserve ratio were 3 percent.

The formula used by the Reserve Banks to calculate earnings credits can be expressed as

$$e = [ b * (1 - \text{FRR}) * r ] + [ b * (\text{MRR}) * f ]$$

Where e is total earnings credits, b is the average clearing balance maintained, FRR is the assumed Reserve Bank marginal reserve ratio (10 percent), r is the earnings credit rate, MRR is the marginal reserve ratio of the DI holding the balance (either 0 percent, 3 percent, or 10 percent), and f is the average federal funds rate. A DI that meets its reserve requirement entirely with vault cash is assigned a marginal reserve requirement of zero.

<sup>5</sup> This calculation adjusts earnings credits as though account holders could adjust their reserve requirement for a “due from deduction” for clearing balances held with a Reserve Bank.

calculated monthly, and expire if not used within one year.<sup>6</sup>

C. Check Service – Table 3 below shows the 2004, 2005 estimate, and 2006 budgeted cost recovery performance for the check service.

Table 3

<b>Check Pro Forma Cost and Revenue Performance</b>					
<b>(\$ millions)</b>					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGET ROE	5 RECOVERY RATE AFTER TARGET ROE [1/(2+4)]
2004	760.2	709.6	50.2	93.6	94.6%
2005 (estimate)	786.4	673.9	112.5	82.0	104.0%
2006 (budget)	732.9	659.6	73.4	57.0	102.3%

1. 2005 Estimate – For 2005, the Reserve Banks estimate that the check service will recover 104.0 percent of total expenses and targeted ROE, compared with the budgeted recovery rate of 100.3 percent. The Reserve Banks expect to recover all actual and imputed expenses of providing check services and earn net income of \$112.5 million (see table 3).

The higher-than-budgeted cost recovery is the result of higher-than-expected revenue of \$53.7 million that was partially offset by higher-than-expected expenses of \$24.0 million. The higher revenue is due to greater-than-budgeted check volumes, customer use of a higher priced product mix, greater-than-expected NICB, and explicit float revenue. The higher costs were largely due to the cost of processing greater-than-expected paper check volume and higher personnel costs related to Check 21 substitute check printing.

<sup>6</sup> A band is established around the contracted clearing balance to determine the maximum balance on which credits are earned as well as any deficiency charges. The clearing balance allowance is 2 percent of the contracted amount, or \$25,000, whichever is greater. Earnings credits are based on the period-average balance maintained up to a maximum of the contracted amount plus the clearing balance allowance. Deficiency charges apply when the average balance falls below the contracted amount less the allowance, although credits are still earned on the average maintained balance.

The greater-than-expected paper check volume can be attributed to the slower-than-expected adoption of Check 21 products and lower-than-anticipated volume losses resulting from check office restructurings. For full-year 2005, the Reserve Banks estimate that paper forward-collection check volume will decline 12.0 percent, compared with a budgeted decline of 14.6 percent. The Reserve Banks expect that paper return check volume will decline 24.4 percent for the full-year, compared with a budgeted decline of 27.0 percent.

Table 4

<b>Paper Check Product Volume Changes</b>			
<b>(percent)</b>			
	<b>BUDGETED 2005 CHANGE</b>	<b>ACTUAL CHANGE THROUGH AUGUST 2005</b>	<b>ESTIMATED 2005 CHANGE</b>
Total forward-collection <sup>a</sup>			
Forward-processed	(14.7)	(11.2)	(10.9)
Fine-sort <sup>a</sup>	(10.1)	(21.6)	(31.9)
Returns	(27.0)	(19.5)	(24.4)

<sup>a</sup> These rates exclude electronic fine-sort volume. Including the electronic fine-sort product, fine-sort volume was budgeted to decline 42.6 percent in 2005 and is now estimated to decline 33.7 percent.

While electronic check presentment volumes are expected to decline for full-year 2005 (see table 5), the share of electronic checks that the Reserve Banks present is expected to increase. Through August 2005, the Reserve Banks presented approximately 26.2 percent of their checks electronically, which represents an increase from 24.6 percent in 2004. In addition to electronic check presentment, through August 2005, the Reserve Banks captured images for about 12.3 percent of all checks they collected.

Table 5

<b>Electronic Check Product Share</b>			
<b>(percent)</b>			
	2004	2005 ACTUAL THROUGH AUGUST	2005 ESTIMATED
Truncation <sup>a</sup>	5.8	6.7	6.2
Non-truncation (Electronic Check Presentment) <sup>a</sup>	18.8	19.5	19.3
Electronic check information	6.3	6.0	6.1
Images	11.0	12.3	12.1

<sup>a</sup> ECP consists of truncated and non-truncated checks. Non-truncated checks include checks presented through the MICR presentment and MICR presentment plus products.

2. 2006 Pricing – In 2006, the Reserve Banks project that the check service will recover 102.3 of total expenses and targeted ROE.

The Reserve Banks plan to maintain full cost recovery by continuing to streamline check processing and administrative activities across the System as well as by increasing Check 21 volume. A number of cost reduction initiatives have been identified and are currently in various stages of implementation. These initiatives include eliminating six more check processing sites by the end of 2006 and working to reduce various check support functions such as check adjustments and check automation services in response to the declining volume.<sup>7</sup>

Total expenses are projected to decline by \$14.3 million, a decline of 2.1 percent when compared with the 2005 estimate. This decline is primarily attributable to lower local operating costs due to efficiency improvements at restructuring sites and declines in projected 2006 volumes. These lower costs are partially offset by higher temporary costs associated with further check restructuring and additional costs to support Check 21 products.

<sup>7</sup> In February 2003, the Reserve Banks announced an initiative to reduce the number of check processing locations from forty-five to thirty-two. In August 2004 and May 2005, the Reserve Banks announced two further rounds of restructurings. By the end of these announced restructurings in 2006, the Reserve Banks will have twenty-two check processing locations.

Revenue is projected to be \$732.9 million, a decline of 6.8 percent compared to the 2005 estimate. This decline is driven by a \$75.9 million, or 10.7 percent, decline in fee revenue that is offset by a \$22.3 million increase in NICB. In 2006, the Reserve Banks project that paper check volume for forward products will decrease 13.9 percent, volume for return products will decrease 23.9 percent, and volume for payor bank products will decrease 20.4 percent. These expected volume declines will be partially offset by a projected increase in Check 21 volume.

Check 21 products have been offered for about one year, and the Reserve Banks anticipate significant growth in 2006 (see table 6).<sup>8</sup> The Reserve Banks project that FedForward volume will more than double, FedReturn volume will more than triple, and FedReceipt volume will increase almost twelvefold. The Reserve Banks have projected an increase in the 2006 Check 21 volume that will result in a doubling of Check 21 product revenue, to about \$44 million. Board and Reserve Bank staff believe that the key to realizing Check 21 cost efficiencies for the System is the widespread acceptance of FedReceipt by paying banks.

Table 6

<b>Check 21 Volume</b>		
	2006 BUDGETED VOLUME (MILLIONS OF ITEMS)	GROWTH FROM 2005 ESTIMATE (PERCENT)
FedForward	431.8	138.5
FedReturn	15.2	206.7
FedReceipt	57.5	1,084.3

In 2006, the Reserve Banks will continue to encourage the adoption of electronic check collection and presentment alternatives through modest price increases to paper check products and price reductions for some electronic products. The price increases for paper products

<sup>8</sup> The Reserve Banks' Check 21 product suite includes FedForward, FedReturn, and FedReceipt. FedForward is the electronic alternative to forward check collection; FedReturn is the electronic alternative to return items; and FedReceipt is electronic receipt of Check 21 items.

generally are expected to be distributed across most product categories, with generally higher price increases for nonstrategic product lines. The Reserve Banks will also narrow the price ranges for similar products across the System. In addition, the Reserve Banks will offer depository institutions (DIs) greater incentives to deposit checks electronically and to accept image presentments. Longer term, as the use of Check 21-related products increases, the pricing of paper products may be strategically raised to encourage further adoption of electronic check collection and presentment alternatives.

For 2006, the Reserve Banks are targeting an overall price increase for paper check services of 5.3 percent (see table 7). This increase consists of a 5.3 percent increase in forward check-collection fees, which is composed of a 4.9 percent increase in forward cash letter fees and a 5.4 percent increase in per-item fees. Fees for return services will increase by 5.4 percent, which is composed of a 5.9 percent increase in return cash letter fees and a 5.3 percent increase in per-item fees. The average volume-weighted fees for payor bank services will increase 5.3 percent.

Table 7

<b>2006 Fee Changes</b> (percent)	
PRODUCT	FEE CHANGE
Paper Check	5.3
Forward-collection	5.3
Cash letter	4.9
Item	5.4
Returns	5.4
Cash letter	5.9
Item	5.3
Payor bank services	5.3
Truncation	1.8
Non-truncation (electronic check presentment)	14.5
Electronic check information	13.8
Images	(1.0)
Check 21	
FedForward	(13.8)
FedReturn	0.0
FedReceipt	(\$.002) <sup>a</sup>

<sup>a</sup> FedReceipt customers will receive a \$0.002 discount per check presented. The discount can be used to offset other check service fees incurred by FedReceipt customers.

The primary risk to meeting the budgeted 2006 cost recovery is higher-than-expected paper check volume declines. Other risks include unanticipated problems with check office restructurings or other major initiatives that may result in significant cost overruns.

D. FedACH Service – Table 8 below shows the 2004, 2005 estimate, and 2006 budgeted cost recovery performance for the commercial FedACH service.

Table 8

<b>FedACH Pro Forma Cost and Revenue Performance</b>					
(\$ millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGET ROE	5 RECOVERY RATE AFTER TARGET ROE [1/(2+4)]
2004	75.1	64.0	11.1	8.9	103.0%
2005 (estimate)	84.7	72.8	11.8	10.0	102.2%
2006 (budget)	86.7	78.3	8.4	7.6	101.0%

1. 2005 Estimate – For 2005, the Reserve Banks estimate that the FedACH service will recover 102.2 percent of total expenses and targeted ROE, compared with the budgeted recovery rate of 100.4 percent. Total revenue is estimated to be \$2.6 million greater than the amount budgeted, and total expenses exceed budget by about \$1.3 million. Through August, FedACH commercial origination volume is 14.5 percent higher than the same period last year. For full-year 2005, the Reserve Banks estimate that FedACH originations will grow 12.7 percent, compared with the budgeted growth of 7.7 percent.

2. 2006 Pricing – The Reserve Banks will reduce the input file fee one-third, from \$3.75 to \$2.50. This change is consistent with the Reserve Banks' long-term strategy to decrease file fees. In addition, the Reserve Banks will reduce the FedLine Web notification of change fee 40 percent, from \$0.50 to \$0.30, to better align the fee with that of similar products.

The Reserve Banks project that the FedACH service will recover 101.0 percent of total expenses and targeted ROE in 2006. Total revenue is budgeted to increase \$2.1 million from the 2005 estimate, despite \$1.6 million less in fee revenue. The decrease in fee revenue is offset by NICB revenue, which is \$3.2 million larger than the 2005 estimate. Based on industry projections, the Reserve Banks estimate national ACH commercial origination volume will grow approximately

18 percent in 2006. This growth is largely attributable to volume increases associated with electronic check conversion applications, including checks converted at lockboxes, and internet initiated payments. The Reserve Banks, however, have projected FedACH commercial origination volume growth of 7.6 percent in 2006 to reflect continued volume shifts to the private-sector ACH operator.

Total expenses and targeted ROE are budgeted to increase \$3.1 million over the 2005 estimate. The Reserve Banks have budgeted increased costs for product development and service initiatives, such as FedACH risk management services.

E. Fedwire Funds and National Settlement Services – Table 9 below shows the 2004, 2005 estimate, and 2006 budgeted cost recovery performance for the Fedwire funds and national settlement services.

Table 9

<b>Fedwire Funds and National Settlement Services Pro Forma Cost and Revenue Performance</b>					
(\$ millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGET ROE	5 RECOVERY RATE AFTER TARGET ROE [1/(2+4)]
2004	57.1	50.6	6.5	6.8	99.4%
2005 (estimate)	64.9	56.1	8.8	7.9	101.4%
2006 (budget)	69.3	60.0	9.3	5.6	105.6%

1. 2005 Estimate – For 2005, the Reserve Banks estimate that the Fedwire funds and national settlement services will recover 101.4 percent of total expenses and targeted ROE, compared with a 2005 budgeted recovery rate of 100.1 percent. Fedwire funds achieved full cost recovery despite lower-than-budgeted fee revenue. Although the Reserve Banks have experienced higher-than-expected growth for online funds volume for 2005, most of the growth has been in the

lowest-priced tier. Through August, online funds volume is 5.7 percent higher than it was for the same period last year. For full-year 2005, the Reserve Banks estimate that online funds volume will grow 5.3 percent, compared with a budgeted growth of 2.8 percent. Also offsetting the lower-than-budgeted fee revenue is higher electronic connection revenue and NICB, as well as lower operating costs. With respect to the national settlement service, the Reserve Banks estimate that the volume of settlement entries processed during 2005 will be 1.4 percent higher than the 2005 budget projection.

2. 2006 Pricing – The Reserve Banks will raise the surcharge for offline transfers one-third, from \$15 to \$20. The surcharge increase more closely aligns the fee with the costs of providing offline access to the Fedwire funds service.

In 2006, the Reserve Banks project that Fedwire funds and national settlement services will recover 105.6 percent of total expense and targeted ROE. The Reserve Banks project 2006 total revenue to increase by \$4.4 million over the 2005 estimate primarily because of the projected higher funds transfer volume and higher NICB and electronic connection revenue. Total expenses for 2006 are expected to increase \$3.9 million from the 2005 estimate primarily because of security and technology investments, including the cost to migrate from legacy systems to Internet protocol-based systems, and further enhance resiliency. Online funds transfer volume for 2006 is expected to increase 3.0 percent compared with the 2005 estimate. National settlement service volume for 2006 is expected to remain flat compared with the 2005 estimate.

F. Fedwire Securities Service – Table 10 below shows the 2004, 2005 estimate, and 2006 budgeted cost recovery performance for the Fedwire securities service.<sup>9</sup>

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<sup>9</sup> The Reserve Banks provide transfer services for securities issued by the U.S. Treasury, federal government agencies, government-sponsored enterprises, and certain international institutions. The priced component of this service, reflected in this memorandum, consists of revenues, expenses, and volumes associated with the transfer of all non-Treasury securities. For Treasury securities, the U.S. Treasury assesses fees for the securities transfer component of the service. The Reserve Banks assess a fee for the funds settlement component of a Treasury securities transfer; this component is not treated as a priced service.

Table 10

<b>Fedwire Securities Service Pro Forma Cost and Revenue Performance</b>					
(\$ millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGET ROE	5 RECOVERY RATE AFTER TARGET ROE [1/(2+4)]
2004	20.4	17.0	3.4	2.9	102.6%
2005 (estimate)	21.0	17.9	3.1	2.9	101.3%
2006 (budget)	22.1	19.1	3.0	1.8	105.9%

1. 2005 Estimate – For 2005, the Reserve Banks estimate that the Fedwire securities service will recover 101.3 percent of total expenses and targeted ROE, compared with a 2005 budgeted recovery rate of 102.8 percent. The lower-than-budgeted recovery is primarily attributable to \$0.6 million in lower-than-expected fee revenue associated with lower-than-expected transaction volume. Through August, online securities volume was flat compared to the same period last year. For full-year 2005, the Reserve Banks estimate that online securities volume will grow 1.1 percent, compared with a budgeted growth of 2.0 percent. The shortfall in fee revenue was offset by higher-than-expected NICB revenue.

2. 2006 Pricing – The Reserve Banks will raise the offline transfer origination and receipt surcharge from \$33 to \$50, and the joint custody origination surcharge from \$35 to \$40. The Reserve Banks will retain all other fees at their current levels. The surcharge increase more closely aligns the fees with the costs of processing these transactions.

The Reserve Banks project that the Fedwire securities service will recover 105.9 percent of total expense and targeted ROE in 2006. Total revenue is projected to increase \$1.1 million from the 2005 estimate primarily because of higher NICB. Online securities volume in 2006 is budgeted to be flat against the 2005 estimate. Offline securities volume is projected to fall 9.0

percent against the 2005 estimate. Total expenses are expected to increase \$1.2 million from the 2005 estimate. In 2006, the Reserve Banks plan to continue to invest in security and technology projects to enhance resiliency, migrate from legacy systems to Internet protocol-based systems, and implement changes in payment system risk policy.

G. Noncash Collection Service – Table 11 below shows the 2004 and 2005 estimated cost recovery performance for the noncash collection service.

Table 11

<b>Noncash Collection Pro Forma Cost and Revenue Performance</b>					
(\$ millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGET ROE	5 RECOVERY RATE AFTER TARGET ROE [1/(2+4)]
2004	1.9	1.4	0.5	0.2	120.3%
2005 (estimate)	1.2	1.1	0.1	0.2	90.9%

1. 2005 Estimate – For 2005, the Reserve Banks estimate that the noncash collection service will recover 90.9 percent of total expenses and targeted ROE, compared with the budgeted recovery rate of 76.7 percent. This greater-than-expected recovery is due to lower-than-expected costs of withdrawal. The Reserve Banks estimate that, in 2005, noncash collection volume will be 16.1 percent lower than expected. Effective September 30, 2005, the Reserve Banks stopped accepting deposits of definitive municipal securities from DIs. The Reserve Banks plan to complete withdrawal from the service effective December 30, 2005.

2. 2006 Pricing – The Reserve Banks will no longer offer the noncash collection service in 2006.

H. Electronic Access – The Reserve Banks allocate the costs and revenues associated with electronic access methods to the Reserve Banks’ priced services.<sup>10</sup> There are four types of electronic access methods through which DIs can access the Reserve Banks’ priced services: FedLine®, FedMail®, FedPhone®, and computer interface (mainframe to mainframe).<sup>11</sup> There are three ways DIs currently use FedLine to access the Reserve Banks’ services: FedLine Web, FedLine Advantage, or FedLine DOS. Information services are available through FedLine Web, while transaction services are available through FedLine Advantage or FedLine DOS. For 2006, the Reserve Banks will change to the FedLine DOS connection fees as well as ancillary changes to frame relay spare parts and training fees.

The Reserve Banks will discontinue access to their services via FedLine DOS effective September 30, 2006. The Reserve Banks are migrating their customers to a tiered, web-based access structure. This migration is scheduled to be completed by September 30. At that time, FedLine customers will only be able to access Reserve Banks services via FedLine Web or FedLine Advantage. In the interim, those customers that have not yet migrated to web-based access can continue to use FedLine DOS. For those customers, the Reserve Banks bundle a FedLine DOS connection and a FedLine Web connection into a single FedLine Select package. In this arrangement, customers use their FedLine DOS connection to access transaction services and FedLine Web to access information services. The Reserve Banks will increase the fee for FedLine Select from \$200 to \$400 per month, beginning April 1, 2006, to encourage customers to move to FedLine Advantage before the September 30, 2006, sunset date.

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<sup>10</sup> Certain electronic access fees are recorded as recoveries that offset the cost of providing these services. These fees are for ancillary services, such as training and vendor pass-through charges. Therefore, these fees are not listed in the electronic access 2006 fee schedule below.

<sup>11</sup> FedLine, FedMail, and FedPhone are registered servicemarks of the Reserve Banks. These connections may also be used to access non-priced services provided by the Reserve Banks.

The Reserve Banks will also increase the frame relay spare parts set fee and in-person and over-the-phone training fees. The fee increase for the frame relay spare parts set, from \$155 to \$175, is intended to ensure fee consistency with the complete 56 kbps frame relay product.<sup>12</sup> The fee increase for over-the-phone and in-person training, from \$100 to \$150 per session and \$800 to \$1,000 per session respectively, is intended to encourage the use of online training options that are offered at no cost.

## **II. PRIVATE-SECTOR ADJUSTMENT FACTOR**

A. Background – Each year, as required by the Monetary Control Act of 1980, the Reserve Banks set fees for priced services provided to depository institutions. These fees are set to recover, over the long run, all direct and indirect costs and imputed costs, including financing costs, taxes, and certain other expenses, as well as return on equity (profit) that would have been earned if a private business firm provided the services. The imputed costs and imputed profit are collectively referred to as the PSAF. In a comparable fashion, investment income is imputed and netted with related direct costs associated with clearing balances to estimate NICB.

B. Private Sector Adjustment Factor – The method for calculating the financing and equity costs in the PSAF requires determining the appropriate levels of debt and equity to impute and then applying the applicable financing rates. In this process, a pro forma priced services balance sheet using estimated Reserve Bank assets and liabilities associated with priced services is developed and the remaining elements that would exist if the Reserve Banks' priced services were provided by a private business firm are imputed.

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<sup>12</sup> The fee for the computer interface frame relay 56 kbps product is \$1,000 per month. The fee for the full circuit backup single equipment set is \$825 per month which, when combined with the \$175 per month spare parts set fee, is consistent with the complete frame relay product.

The amount of the Reserve Banks' assets that will be used to provide priced services during the coming year is determined using Reserve Bank information on actual assets and projected disposals and acquisitions. The priced portion of assets is determined based on the allocation of the related depreciation expense. The priced portion of actual Reserve Bank liabilities consists of balances held by Reserve Banks for clearing priced services transactions (clearing balances), and other liabilities such as accounts payable and accrued expenses.

Long-term debt is imputed only when core clearing balances and long-term liabilities are not sufficient to fund long-term assets or if the interest rate risk sensitivity analysis, which measures the interest rate effect of the difference between interest rate sensitive assets and liabilities, indicates that a 200 basis point change in interest rates would change cost recovery more than two percentage points.<sup>13</sup> Short-term debt is imputed only when short-term liabilities and clearing balances not used to finance long-term assets are insufficient to fund short-term assets. Equity is imputed to meet the FDIC definition of a well-capitalized depository institution for insurance premium purposes.<sup>14</sup>

1. Financing rates – Equity financing rates are based on the target ROE result of the capital asset pricing model (CAPM).<sup>15</sup> In the CAPM, the required rate of return on a firm's equity is equal to the return on a risk-free asset plus a risk premium. To implement CAPM, the risk-free rate

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<sup>13</sup> A portion of clearing balances is used as a funding source for priced services assets. Long-term assets are partially funded from core clearing balances, currently \$4 billion. Core clearing balances are considered the portion of the balances that has remained stable over time without regard to the magnitude of actual clearing balances.

<sup>14</sup> The FDIC requirements for a well-capitalized depository institution are 1) a ratio of total capital to risk-weighted assets of 10 percent or greater; and 2) a ratio of Tier 1 capital to risk-weighted assets of 6 percent or greater; and 3) a leverage ratio of Tier 1 capital to total assets of 5 percent or greater. The Federal Reserve priced-services balance sheet total capital has no components of Tier 1 or total capital other than equity; therefore, requirements 1 and 2 are essentially the same measurement.

<sup>15</sup> In October, the Board approved changes to the methodology used to derive the pretax ROE from using the average of the results of three analytical models, the comparable accounting earnings model (CAE), the discounted cash-flow model (DCF), and the CAPM, to using only the CAPM (70 FR 60341, October 17, 2005).

is based on the three-month Treasury bill, the beta is assumed to be equal to 1.0, which approximates the risk of the market as a whole, and the monthly returns in excess of the risk-free rate over the most recent 40 years are used as the market risk premium. The resulting ROE influences the dollar level of the PSAF because this is the return a shareholder would expect in order to invest in a private business firm.

For simplicity, given that federal corporate income tax rates are graduated, state income tax rates vary, and various credits and deductions can apply, a specific income tax expense is not calculated for Reserve Bank priced services. Instead, the Board targets a pretax ROE that would provide sufficient income to fulfill its income tax obligations.<sup>16</sup> To the extent that the actual performance results are greater or less than the targeted ROE, income taxes are adjusted using an imputed income tax rate. The imputed income tax rate is the median of the rates paid by the top fifty bank holding companies (BHCs) based on deposit balance over the past five years adjusted to the extent that they invested in tax-free municipal bonds. Because the Reserve Banks provide similar services through their correspondent banking activities, including payment and settlement services, and equity is imputed to meet the FDIC requirements of a well-capitalized depository institution, using a tax rate based on the top fifty BHCs by deposit balance continues to be an applicable and reasonable approach.

2. Other Costs – The PSAF also includes the estimated priced services-related expenses of the Board of Governors and imputed sales taxes based on Reserve Bank estimated expenditures. An assessment for FDIC insurance, when required, is imputed based on current FDIC rates and projected clearing balances held with the Federal Reserve.

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<sup>16</sup> Other taxes are included in priced-services actual or imputed costs.

C. Net Income on Clearing Balances – The NICB calculation is made each year along with the PSAF calculation and is based on the assumption that Reserve Banks invest clearing balances net of imputed reserve requirements and balances used to finance priced-services assets. Based on these net clearing balance levels, Reserve Banks impute a constant spread, determined by the return on a portfolio of investments, over the three-month Treasury bill rate.<sup>17, 18</sup> The calculation also involves determining the priced services cost of earnings credits (amounts available to offset service fees) on contracted clearing balances held, net of expired earnings credits, based on a discounted Treasury bill rate. Rates and clearing balance levels used in the NICB estimate are based on the most recent rates and clearing balance levels.<sup>19</sup> Because clearing balances are held for clearing priced services transactions or offsetting priced services fees, they are directly related to priced services. The net earnings or expense attributed to the investments and the cost associated with holding clearing balances, therefore, are considered net income for priced services activities.

D. Discussion – The decrease in the 2006 PSAF is primarily due to the decrease in ROE, which results in a decrease in the cost of equity. Although clearing balances on which investments are imputed decreased, a similar offsetting increase in items in process of collection results in a small increase in total assets. Because equity is imputed at 5 percent of total assets, this small change in assets causes equity to remain unchanged from 2005.

1. Asset Base – The estimated 2006 Federal Reserve assets, reflected in table 12, have increased \$0.3 million. The decline in imputed investments in marketable securities of \$546.0

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<sup>17</sup> The investment portfolio is composed of investments comparable to a BHC's investment holdings, such as short-term Treasury securities, government agency securities, commercial paper, long-term corporate bonds, and money market funds. See table 16 for the investments imputed in 2006.

<sup>18</sup> NICB is projected to be \$102.8 million for 2006 using a constant spread of 35 basis points over the three-month Treasury bill, and applying this rate to the clearing balance levels used in the 2006 pricing process. The 2005 NICB estimate is \$73.8 million.

<sup>19</sup> July 2005 rates and balances were used to estimate the 2006 NICB.

million and in imputed reserve requirements of \$69.7 million, which are imputed based on the estimated level of clearing balances held, are offset by an increase in items in process of collection due to higher estimated float receivables. As a result of consolidation and restructuring of several System priced services functions, furniture and equipment and bank premises assets are expected to decrease \$59.5 million in 2006.

As shown in table 13, the assets financed through the PSAF have decreased. Short-term assets funded with short-term payables and clearing balances total \$28.4 million. This represents a \$10.5 million decrease from the short-term assets funded in 2005 due to an increase in expected short-term payables. Long-term assets funded with long-term liabilities, equity, and core clearing balances are projected to total \$291.1 million. This represents a decrease of \$70.6 million from the long-term assets funded in 2005 because long-term assets have decreased.

2. Debt and Equity Costs and Taxes – As previously mentioned, core clearing balances are available as a funding source for priced service assets. Table 13 shows that \$319.5 million in clearing balances is used to fund priced services assets in 2006. The interest rate sensitivity analysis in table 14 indicates that a 200 basis point decrease in interest rates affects the ratio of rate-sensitive assets to rate-sensitive liabilities and produces a decrease in cost recovery of 1.2 percentage points, while an increase of 200 basis points in interest rates increases cost recovery by 1.1 percentage points. The established threshold for a change in cost recovery is two percentage points; therefore, interest rate risk associated with using these balances is within acceptable levels and no long-term debt is imputed.

Table 15 shows the imputed PSAF elements, the pretax ROE, and other required PSAF costs for 2005 and 2006. The decrease in ROE lowers the estimated cost of equity in 2006. Sales taxes decreased from \$8.2 million in 2005 to \$7.7 million in 2006. The effective income tax

rate used in 2006 increased to 29.8 percent from 29.6 percent in 2005. The priced service portion of the Board's expenses increased \$0.9 million from \$6.6 million in 2005 to \$7.5 million in 2006.

3. Capital Adequacy and FDIC Assessment – As shown in table 12, the amount of equity imputed for the 2006 PSAF is \$808.0 million, unchanged from the imputed equity in 2005. As noted above and shown in table 16, equity is based on 5 percent of total assets and is greater than 10 percent of risk-weighted assets, as required by the FDIC definition of a well-capitalized depository institution for insurance premium purposes. In 2006, the capital to total assets ratio and the capital to risk-weighted asset ratio both meet or exceed regulatory guidelines. As a result, no FDIC assessment is imputed for 2006.

### **III. ANALYSIS OF COMPETITIVE EFFECT**

All operational and legal changes considered by the Board that have a substantial effect on payments system participants are subject to the competitive impact analysis described in the March 1990 policy, "The Federal Reserve in the Payments System."<sup>20</sup> Under this policy, the Board assesses whether the proposed change would have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services because of differing legal powers or constraints or because of a dominant market position deriving from such legal differences. If the change creates such an effect, the Board must further evaluate the change to assess whether its benefits — such as contributions to payment system efficiency, payment system integrity, or other Board objectives — can be retained while minimizing the adverse effect on competition.

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<sup>20</sup> Federal Reserve Regulatory Service (FRRS) 9-1558.

The Board believes that the 2006 fees, fee structures, or changes in service will not have a direct and material adverse effect on the ability of other service providers to compete effectively with the Reserve Banks in providing similar services. The changes will permit the Reserve Banks to earn an ROE that is comparable to the returns of the overall market.

Table 12  
Comparison of Pro Forma Balance Sheets  
for Federal Reserve Priced Services  
(millions of dollars – average for year)

	<u>2006</u>	<u>2005</u>	<u>Change</u>
<b>Short-term assets</b>			
Imputed reserve requirement on clearing balances	\$ 986.9	\$ 1,056.6	\$ (69.7)
Receivables	67.0	64.9	2.1
Materials and supplies	1.0	1.7	(0.7)
Prepaid expenses	26.8	28.5	(1.7)
Items in process of collection <sup>21</sup>	5,126.7	4,445.8	680.9
<b>Total short-term assets</b>	<u>6,208.4</u>	<u>5,597.5</u>	<u>610.9</u>
<b>Imputed investments</b>	\$ 8,562.6	\$ 9,108.6	\$ (546.0)
<b>Long-term assets</b>			
Premises <sup>22</sup>	385.8	394.9	(9.1)
Furniture and equipment	122.7	173.1	(50.4)
Leasehold improvements and long-term prepayments	84.6	79.7	4.9
Prepaid pension costs	796.0	806.0	(10.0)
<b>Total long-term assets</b>	<u>1,389.1</u>	<u>1,453.7</u>	<u>(64.6)</u>
<b>Total assets</b>	<u>\$ 16,160.1</u>	<u>\$ 16,159.8</u>	<u>\$ 0.3</u>
<b>Short-term liabilities<sup>23</sup></b>			
Clearing balances and balances arising from early credit of uncollected items	\$ 9,801.5	\$ 10,620.6	\$ (819.1)
Deferred credit items <sup>21</sup>	5,194.2	4,391.0	803.2
Short-term payables	66.4	56.2	10.2
<b>Total short-term liabilities</b>	<u>15,062.1</u>	<u>15,067.8</u>	<u>(5.7)</u>
<b>Long-term liabilities<sup>23</sup></b>			
Postemployment/retirement benefits	<u>290.0</u>	<u>284.0</u>	<u>6.0</u>
<b>Total liabilities</b>	15,352.1	15,351.8	0.3
<b>Equity</b>	<u>808.0</u>	<u>808.0</u>	<u>0.0</u>
<b>Total liabilities and equity</b>	<u>\$ 16,160.1</u>	<u>\$ 16,159.8</u>	<u>\$ 0.3</u>

<sup>21</sup> Represents float that is directly estimated at the service level.

<sup>22</sup> Includes allocations of Board of Governors' assets to priced services of \$1.4 million for 2005 and 2006.

<sup>23</sup> No debt is imputed because clearing balances are used as an available funding source.

Table 13  
Portion of Clearing Balances used  
to Fund Priced Services Assets  
(millions of dollars)

	<u>2006</u>	<u>2005</u>
<b>A. Short-term asset financing</b>		
Short-term assets to be financed:		
Receivables	\$ 67.0	\$ 64.9
Materials and supplies	1.0	1.7
Prepaid expenses	26.8	28.5
Total short-term assets to be financed	\$ 94.8	\$ 95.1
Short-term funding sources:		
Short-term payables	66.4	56.2
Portion of short-term assets funded with clearing balances <sup>24</sup>		
	\$ 28.4	\$ 38.9
<b>B. Long-term asset financing</b>		
Long-term assets to be financed:		
Premises	\$ 385.8	\$ 394.9
Furniture and equipment	122.7	173.1
Leasehold improvements and long-term prepayments	84.6	79.7
Prepaid pension costs	796.0	806.0
Total long-term assets to be financed	\$ 1,389.1	\$ 1,453.7
Long-term funding sources:		
Postemployment/retirement benefits	290.0	284.0
Imputed equity <sup>25</sup>	808.0	808.0
Total long-term funding sources	\$ 1,098.0	\$ 1,092.0
Portion of long-term assets funded with core clearing balances <sup>24</sup>		
	\$ 291.1	\$ 361.7
<b>C. Total clearing balances used for funding priced-services assets</b>		
	\$ 319.5	\$ 400.6

<sup>24</sup> Clearing balances shown on table 12 are available for financing priced-services assets. Using these balances reduces the amount available for investment for the NICB calculation. Long-term assets are financed with long-term liabilities and with core clearing balances; a total of \$4 billion in balances is available for this purpose. Short-term assets are financed with clearing balances not used to finance long-term assets. No short- or long-term debt is imputed.

<sup>25</sup> See table 15 for calculation of required imputed equity amount.

Table 14  
2006 Interest Rate Sensitivity Analysis<sup>26</sup>  
(millions of dollars)

	<u>Rate sensitive</u>	<u>Rate insensitive</u>	<u>Total</u>
<b>Assets</b>			
Imputed reserve requirement on clearing balances		\$ 986.9	\$ 986.9
Imputed investments	\$ 8,562.6		8,562.6
Receivables		67.0	67.0
Materials and supplies		1.0	1.0
Prepaid expenses		26.8	26.8
Items in process of collection <sup>27</sup>	(67.5)	5,194.2	5,126.7
Long-term assets		1,389.1	1,389.1
<b>Total assets</b>	<u>\$ 8,495.1</u>	<u>\$ 7,665.0</u>	<u>\$ 16,160.1</u>
<b>Liabilities</b>			
Clearing balances and balances arising from early credit of uncollected items <sup>28</sup>	\$ 7,762.6	\$ 2,038.9	\$ 9,801.5
Deferred credit items		5,194.2	5,194.2
Short-term payables		66.4	66.4
Long-term liabilities		290.0	290.0
<b>Total liabilities</b>	<u>\$ 7,762.6</u>	<u>\$ 7,589.5</u>	<u>\$ 15,352.1</u>
<b>Rate change results</b>			
		<u>200 basis point decrease in rates</u>	<u>200 basis point increase in rates</u>
Asset yield (\$8,495.1 x rate change)		\$ (169.9)	\$ 169.9
Liability cost (\$7,762.6 x rate change)		(155.3)	155.3
Effect of 200 basis point change		<u>\$ (14.6)</u>	<u>\$ 14.6</u>
2006 budgeted revenue		\$ 911.1	\$ 911.1
Effect of change		(14.6)	14.6
Revenue adjusted for effect of interest rate change		<u>\$ 896.5</u>	<u>\$ 925.7</u>
2006 budgeted total expenses		\$ 762.0	\$ 762.0
2006 budgeted PSAF		127.1	127.1
Tax effect of interest rate change (\$ change x 29.8%)		(4.4)	4.4
Total recovery amounts		<u>\$ 884.7</u>	<u>\$ 893.5</u>
Recovery rate before interest rate change		102.5 %	102.5%
Recovery rate after interest rate change		101.3 %	103.6%
Effect of interest rate change on cost recovery <sup>29</sup>		(1.2)%	1.1%

<sup>26</sup> The interest rate sensitivity analysis evaluates the level of interest rate risk presented by the difference between rate-sensitive assets and liabilities. The analysis reviews the ratio of rate-sensitive assets to rate-sensitive liabilities and the effect on cost recovery of a change in interest rates of up to 200 basis points.

<sup>27</sup> The amount designated rate sensitive represents the amount of cash items in process of collection that have been credited to customers prior to settlement.

<sup>28</sup> The amount designated rate insensitive represents clearing balances on which earnings credits are not paid.

<sup>29</sup> The effect of a potential change in rates is less than a 2 percentage point change in cost recovery; therefore, no long-term debt is imputed for 2006.

Table 15  
Derivation of the 2006 and 2005 PSAF  
(millions of dollars)

	<u>2006</u>	<u>2005</u>
A. Imputed elements		
Short-term debt <sup>30</sup>	\$ 0.0	\$ 0.0
Long-term debt <sup>31</sup>	\$ 0.0	\$ 0.0
Equity		
Total assets from table 12	\$ 16,160.1	\$ 16,159.8
Required capital ratio <sup>32</sup>	<u>5%</u>	<u>5%</u>
Total equity	\$ 808.0	\$ 808.0
B. Cost of capital		
1. Financing rates/costs		
Short-term debt	N/A	N/A
Long-term debt	N/A	N/A
Pretax return on equity	12.7%	18.1%
2. Elements of capital costs		
Short-term debt	\$ 0.0	\$ 0.0
Long-term debt	0.0	0.0
Equity <sup>33</sup>	\$ 808.0 x 12.7% = <u>102.5</u>	\$ 808.0 x 18.1% = <u>146.2</u>
	\$ 102.5	\$ 146.2
C. Other required PSAF costs		
Sales taxes	\$ 7.7	\$ 8.2
Federal Deposit Insurance assessment	0.0	0.0
Board of Governors expenses	<u>7.5</u>	<u>6.6</u>
	15.2	14.8
D. Total PSAF	<u>\$ 117.7</u>	<u>\$ 161.0</u>
As a percent of assets	0.7%	1.0%
As a percent of expenses <sup>34</sup>	15.8%	22.2%
E. Tax rates	29.8%	29.6%

<sup>30</sup> No short-term debt is imputed because clearing balances are used as a funding source for those assets that are not financed with short-term payables.

<sup>31</sup> No long-term debt is imputed because clearing balances are used as a funding source.

<sup>32</sup> Based on the Federal Deposit Insurance Corporation's definition of a well-capitalized institution for purposes of assessing insurance premiums.

<sup>33</sup> As a result of the change in ROE methodology, the 2006 ROE is equal to a risk-free rate plus a risk premium (beta\*market risk premium). The 2006 after-tax CAPM ROE is calculated as 3.33% + (1\*5.58%) = 8.91%. Using a tax rate of 29.8%, the after-tax ROE is converted into a pretax ROE, which results in a pretax ROE of 12.69%.

<sup>34</sup> System 2006 budgeted priced services expenses less shipping are \$743.8 million.

Table 16  
Computation of 2006 Capital Adequacy  
for Federal Reserve Priced Services  
(millions of dollars)

	<u>Assets</u>	<u>Risk weight</u>	<u>Weighted assets</u>
Imputed reserve requirement on clearing balances	\$ 986.9	0.0	\$ 0.0
Imputed investments:			
1 – year Treasury note <sup>35</sup>	4,188.4	0.0	0.0
Commercial paper (3 months) <sup>35</sup>	4,073.7	1.0	4,073.7
GNMA mutual fund <sup>36</sup>	300.5	0.2	60.1
	<u>\$ 9,549.5</u>		<u>\$ 4,133.8</u>
Receivables	67.0	0.2	13.4
Materials and supplies	1.0	1.0	1.0
Prepaid expenses	26.8	1.0	26.8
Items in process of collection	5,126.7	0.2	1,025.3
Premises	385.8	1.0	385.8
Furniture and equipment	122.7	1.0	122.7
Leases, leasehold improvements & long-term prepayments	84.6	1.0	84.6
Prepaid pension costs	<u>796.0</u>	1.0	<u>796.0</u>
Total	<u>\$ 16,160.1</u>		<u>\$ 6,589.4</u>
Imputed equity for 2006	\$ 808.0		
Capital to risk-weighted assets	12.3 %		
Capital to total assets	5.0 %		

<sup>35</sup> The imputed investments are assumed to be similar to those for which rates are available on the Federal Reserve's H.15 statistical release, which can be located at <http://www.federalreserve.gov/releases/h15/data.htm>.

<sup>36</sup> The imputed mutual fund investment is based on Vanguard's GNMA Fund Investor Shares fund, which was chosen based on the investment strategies articulated in its prospectuses. The fund returns can be located at <http://flagship4.vanguard.com/VGApp/hnw/FundsByType>.

## FEDACH 2006 FEE SCHEDULE

EFFECTIVE JANUARY 3, 2006. BOLD INDICATES CHANGES FROM 2005 PRICES.

	Fee
Origination (per item or record): <sup>37</sup>	
Items in small files	\$0.0030
Items in large files	\$0.0025
Addenda record	\$0.0010
Input file processing fee (per file):	<b>\$2.50</b>
Receipt (per item or record): <sup>38</sup>	
Item	\$0.0025
Addenda record	\$0.0010
Risk Product:	
Risk service subscription	<b>\$20.00</b>
Risk origination monitoring criteria	<b>\$15.00</b>
Risk origination monitoring batch	<b>\$0.0025</b>
Monthly fee (per routing number):	
Account servicing fee <sup>39</sup>	\$25.00
FedACH settlement <sup>40</sup>	\$20.00
Information extract file	\$10.00
FedLine Web origination returns and notification of change (NOC) fee: <sup>41</sup>	<b>\$0.30</b>
Voice response returns/NOC fee: <sup>42</sup>	\$2.00
Non-electronic input/output fee: <sup>43</sup>	
Tape input/output	\$25.00
Paper output	\$15.00
Facsimile exception returns/NOC <sup>44</sup>	\$15.00

<sup>37</sup> Small files contain fewer than 2,500 items and large files contain 2,500 or more items. These origination fees do not apply to items that the Reserve Banks receive from the other private-sector ACH operator.

<sup>38</sup> Receipt fees do not apply to items that the Reserve Banks send to the other private-sector ACH operator.

<sup>39</sup> The account-servicing fee applies to routing numbers that have received or originated FedACH transactions. Institutions that receive only U.S. government transactions or that elect to use the other operator exclusively are not assessed the account-servicing fee.

<sup>40</sup> The FedACH settlement fee is applied to any routing number with activity during a month. This fee does not apply to routing numbers that use the Reserve Banks for government transactions only.

<sup>41</sup> The fee includes the transaction and addenda fees.

<sup>42</sup> The fee includes the transaction fee in addition to the voice-response fee.

<sup>43</sup> These services are offered for contingency situations only.

<sup>44</sup> The fee includes the transaction fee in addition to the conversion fee.

Canadian cross-border fee:	
Cross-border item surcharge <sup>45</sup>	\$0.039
Same-day recall of item at receiving gateway operator	\$3.50
Same-day recall of item not at receiving gateway operator	\$5.00
Item trace	\$5.00
Microfiche	\$3.00
Mexico service fee:	
Cross-border item surcharge <sup>45</sup>	\$0.67
Return received from Mexico	\$0.69
Item trace	\$11.50
Transatlantic service fee:	
Cross-border item surcharge <sup>45</sup>	
Austria	\$2.00
Germany	\$2.00
The Netherlands	\$2.00
Switzerland	\$2.00
United Kingdom	\$2.00
Return received from <sup>46</sup>	
Austria	\$5.00
Germany	\$8.00
The Netherlands	\$5.00
Switzerland	\$5.00
United Kingdom	\$8.00

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<sup>45</sup> The cross-border item surcharge is assessed in addition to the standard item, addenda, and file-processing fees.

<sup>46</sup> This per-item surcharge is in addition to the standard receipt fees.

## FEDWIRE FUNDS AND NATIONAL SETTLEMENT SERVICES 2006 FEE SCHEDULE

EFFECTIVE JANUARY 3, 2006. BOLD INDICATES CHANGES FROM 2005 PRICES.

### Fedwire Funds Service

	Fee
Basic volume-based transfer fee (originations and receipts)	
Per transfer for the first 2,500 transfers per month	\$0.30
Per transfer for additional transfers up to 80,000 per month	\$0.20
Per transfer for every transfer over 80,000 per month	\$0.10
 Surcharge for offline transfers (originations and receipts)	 <b>\$20.00</b>

### National Settlement Service

Basic	
Settlement entry fee	\$0.80
Settlement file fee	\$14.00
 Surcharge for offline file origination	 \$25.00
 Minimum monthly charge (account maintenance) <sup>47</sup>	 \$60.00
 Special settlement arrangements <sup>48</sup>	
Fee per day	\$100.00

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<sup>47</sup> This minimum monthly charge will only be assessed if total settlement charges during a calendar month are less than \$60.

<sup>48</sup> Special settlement arrangements use Fedwire funds transfers to effect settlement. Participants in arrangements and settlement agents are also charged the applicable Fedwire funds transfer fee for each transfer into and out of the settlement account.

**FEDWIRE SECURITIES SERVICE 2006 FEE SCHEDULE  
(NON-TREASURY SECURITIES)**

**EFFECTIVE JANUARY 3, 2006. BOLD INDICATES CHANGES FROM 2005 PRICES.**

	Fee
Basic transfer fee	
Transfer or reversal originated or received	\$0.32
Surcharge	
Offline transfer or reversal originated or received	<b>\$50.00</b>
Monthly maintenance fees	
Account maintenance (per account)	\$15.00
Issues maintained (per issue/per account)	\$0.40
Claim adjustment fee	\$0.30
Joint custody fee	<b>\$40.00</b>

## ELECTRONIC ACCESS 2006 FEE SCHEDULE

**EFFECTIVE JANUARY 3, 2006 (UNLESS OTHERWISE INDICATED). BOLD INDICATES CHANGES FROM 2005 PRICES.**

### FedLine

FedLine Select Package (monthly)	\$200.00 (until 3/31/06)
	<b>\$400.00 (effective 4/1/06)</b>
Includes: One dial – DOS-based FedLine	
FedLine Web institution fee	
Three individual subscriptions	
Additional FedLine Web individual subscriber fee (monthly)	\$15.00
Additional DOS-based FedLine – dial (monthly)	\$100.00
Additional DOS-based FedLine – frame relay less than 56 kbps (monthly)	\$825.00
Test and contingency options for frame relay:	
Full circuit backup <sup>49</sup> – single equipment set (monthly)	\$825.00
Frame connection only <sup>50</sup> – single equipment set (monthly)	\$693.00
Spare parts set <sup>51</sup> (monthly)	<b>\$175.00</b>
FedLine Web (monthly)	\$50.00
Set-up fee (one time)	\$50.00
Individual subscriber fee (monthly)	\$15.00
FedLine Advantage (monthly)	\$250.00
Includes: One FedLine Advantage institution fee	
Three FedLine Advantage individual subscriber digital certificates	
Set-up fee (one time)	\$400.00
VPN (monthly)	\$50.00
Individual subscriber fee beyond first three (one time)	\$100.00
Individual subscriber fee (monthly)	\$20.00

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<sup>49</sup> Prices shown are for full circuit backup of equal speed to the production circuit. Multiple customers sharing a single disaster recovery connection at a third-party provider require custom arrangements.

<sup>50</sup> Prices shown for a frame relay link connection with no ISDN dial-up backup. Multiple customers sharing a single disaster recovery connection at a third-party provider require custom arrangements.

<sup>51</sup> The redundant component set includes a Cisco router, a digital service unit, and a link encryptor.

**FedMail**<sup>52</sup>

FedMail Fax (monthly per fax line) \$15.00

**Computer Interface**

Frame relay-computer interface (CI) @ 56 kbps (monthly) \$1,000.00  
 Frame relay-CI @ 256 kbps (monthly) \$2,000.00  
 Frame relay-CI T1 (monthly) \$2,500.00

Test and contingency options for frame relay:<sup>53</sup>

CONNECTION TYPE	FULL CIRCUIT BACKUP	FRAME CONNECTION ONLY
CI @ 56 kbps	\$845	\$765
CI @ 256 kbps	\$1,750	\$1,585
CI T1	\$2,230	\$2,010

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<sup>52</sup> FedPhone and FedMail e-mail are free options.

<sup>53</sup> Some large CI customers are required to ensure that their contingency connections to the Federal Reserve are diversely routed. These customers are charged an additional \$1,000 per month to recover the Federal Reserve's cost of providing this network diversity.

By order of the Board of Governors of the Federal Reserve System, November 2, 2005.

Jennifer J. Johnson  
Secretary of the Board.

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