

FEDERAL RESERVE SYSTEM

Docket No. OP – 1552

Federal Reserve Bank Services

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Notice.

SUMMARY: The Board of Governors of the Federal Reserve System (Board) has approved the private sector adjustment factor (PSAF) for 2017 of \$16.6 million and the 2017 fee schedules for Federal Reserve priced services and electronic access. These actions were taken in accordance with 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.

DATES: The new fee schedules become effective January 3, 2017.

FOR FURTHER INFORMATION CONTACT: For questions regarding the fee schedules: Susan V. Foley, Senior Associate Director, (202) 452-3596; Linda Healey, Senior Financial Services Analyst, (202) 452-5274, Division of Reserve Bank Operations and Payment Systems. For questions regarding the PSAF: Gregory L. Evans, Deputy Associate Director, (202) 452-3945; Lawrence Mize, Deputy Associate Director, (202) 452-5232; Max Sinthorntham, Senior Financial Analyst, (202) 452-2864, 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 2017 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.frbservices.org.

Supplementary Information:

I. Private Sector Adjustment Factor, Priced Services Cost Recovery, and Overview of 2017 Price Changes

A. *Overview* — 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 the 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. From 2006 through 2015, the Reserve Banks recovered 102.6 percent of their total expenses (including imputed costs) and targeted after-tax profits or return on equity (ROE) for providing priced services.¹

Table 1 summarizes 2015 actual, 2016 estimated, and 2017 budgeted cost-recovery rates for all priced services. Cost recovery is estimated to be 103.6 percent in 2016 and budgeted to be 100.0 percent in 2017.

¹ The 10-year recovery rate is based on the pro forma income statements for Federal Reserve priced services published in the Board's *Annual Report*. Effective December 31, 2006, the Reserve Banks implemented the Financial Accounting Standard Board's (FASB) Statement of Financial Accounting Standards (SFAS) No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans* (codified in FASB Accounting Standards Codification (ASC) Topic 715 (ASC 715), *Compensation-Retirement Benefits*), which resulted in recognizing a cumulative reduction in equity related to the priced services' benefit plans. Including this cumulative reduction in equity from 2006 to 2015 results in cost recovery of 92.8 percent for the ten-year period. This measure of long-run cost recovery is also published in the Board's *Annual Report*.

Table 1

Aggregate Priced Services Pro Forma Cost and Revenue Performance^a (dollars in millions)					
YEAR	1 ^b REVENUE	2 ^c TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 ^d TARGETED ROE	5 ^e RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2015 (actual)	429.1	397.8	31.3	5.6	106.4%
2016 (estimate)	432.5	413.3	19.1	4.1	103.6%
2017 (budget)	439.4	434.8	4.6	4.6	100.0%

^a. Calculations in this table and subsequent pro forma cost and revenue tables may be affected by rounding.

^b. Revenue includes imputed income on investments when equity is imputed at a level that meets minimum capital requirements and, when combined with liabilities, exceeds total assets.

^c. The calculation of total expense includes operating, imputed, and other expenses. Imputed and other expenses include taxes, 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 pension plans under FAS 158 [ASC 715] are also included.

^d. Targeted ROE is the after-tax ROE included in the PSAF.

^e. The recovery rates in this and subsequent tables do not reflect the unamortized gains or losses that must be recognized in accordance with FAS 158 [ASC 715]. Future gains or losses, and their effect on cost recovery, cannot be projected.

Table 2 provides an overview of cost-recovery budgets, estimates, and performance for the 10-year period from 2006 to 2015, 2015 actual, 2016 budget, 2016 estimate, and 2017 budget by priced service.

Table 2

Priced Services Cost Recovery (percent)					
PRICED SERVICE	2006-2015	2015 ACTUAL	2016 BUDGET ^a	2016 ESTIMATE	2017 BUDGET ^b
All services	102.6	106.4	101.4	103.6	100.0
Check	103.6	113.0	105.7	109.7	104.5
FedACH	99.5	100.7	99.5	98.8	95.5
Fedwire Funds and NSS	101.8	103.9	99.4	103.2	101.0
Fedwire Securities	102.7	108.2	97.5	97.6	97.5

^a. The 2016 budget figures reflect the final budgets as approved by the Board in December 2015.

^b. The 2017 budget figures reflect preliminary budget information from the Reserve Bank. The Reserve Banks will submit final budget data to the Board in November 2016, for Board consideration in December 2016.

1. *2016 Estimated Performance* — The Reserve Banks estimate that they will recover 103.6 percent of the costs of providing priced services in 2016, including total expense and targeted ROE, compared with a 2016 budgeted recovery rate of 101.4 percent, as shown in table 2. Overall, the Reserve Banks estimate that they will fully recover actual and imputed costs and earn net income of \$19.1 million, compared with the targeted ROE of \$4.1 million. The Reserve Banks estimate that the check service and the Fedwire® Funds and National Settlement Service will achieve full cost recovery; however, the Reserve Banks estimate that the FedACH® Service and the Fedwire Securities Service will not achieve full cost recovery because of investment costs associated with multiyear technology initiatives to modernize their processing platforms.² These investments are expected to enhance efficiency, the overall quality of operations, and the Reserve Banks' ability to offer additional services to depository institutions. Greater-than-expected check volume processed by the Reserve Banks has been the single most significant factor influencing priced services cost recovery.

2. *2017 Private-Sector Adjustment Factor* — The 2017 PSAF for Reserve Bank priced services is \$16.6 million. This amount represents an increase of \$3.5 million

² The Reserve Banks have been engaged in a multiyear technology initiative to modernize the FedACH processing platform by migrating the service from a mainframe system to a distributed computing environment. In 2016, the Reserve Banks chose a commercially available option as their processing solution to modernize the FedACH platform.

The Reserve Banks completed a multiyear technology initiative to modernize the processing platform for the Fedwire Securities Services in 2015. The capitalized software costs of this initiative will be amortized until October 2020 and thus remain a primary factor in the cost recovery calculation for these services in 2016.

from the 2016 PSAF of \$13.1 million. This increase is primarily the result of an increase in the total cost of capital, which includes cost of debt and targeted return on equity.

3. 2017 Projected Performance — The Reserve Banks project a priced services cost-recovery rate of 100.0 percent in 2017, with both net income and targeted ROE of \$4.6 million. The Reserve Banks project that the price changes will result in a 3.2 percent average price increase for customers. The Reserve Banks project that the check service and the Fedwire Funds and National Settlement Service will fully recover their costs; however, the Reserve Banks project that the FedACH Service and the Fedwire Securities Service will not achieve full cost recovery. Although FedACH is not budgeted to fully recover its costs in 2017, the Reserve Banks are expected to fully recover FedACH costs following finalization of the FedACH technology modernization project and over the long run. In addition, the Board believes the Reserve Banks' 2017 FedACH fee increases are consistent with a multi-year strategy to minimize pricing volatility and provide long-term price stability for customers while undertaking the ongoing technology upgrade that will result in FedACH incurring higher expenses over the next few years. Although the Fedwire Securities Service is not budgeted to fully recover its costs in 2017, the Board believes the Reserve Banks are expected to fully recover Fedwire Securities Service costs over the long run following a few years of under recovery. As a result of an expected decrease in volume as well as the advancement of new initiatives to improve resiliency and operational functionality, the Reserve Banks plan to increase fees gradually over a multi-year period to avoid the dramatic impact of a sharp one-year increase.

The primary risks to the Reserve Banks' ability to achieve their targeted cost-recovery rates are unanticipated volume and revenue reductions and the potential for cost overruns with the technology modernization initiatives. In light of these risks, the Reserve Banks will continue refining their business and operational strategies to manage operating costs, to increase product revenue, and to capitalize on efficiencies gained from technology initiatives.

4. *2017 Pricing* — The following summarizes the Reserve Banks' fee schedules for priced services in 2017:

Check

- The Reserve Banks announced in July 2016, restructured FedForward[®], FedReturn[®], and FedReceipt[®] fee schedules to reflect today's electronic check-processing environment and announced in October 2016 a minor additional modification.³

These previously announced fees, discussed in attachment II, will be effective in January 2017, consistent with the fee schedules for other priced services. The Reserve Banks announced the restructured fee schedules earlier in the year to provide customers with sufficient notice.

FedACH

³ For the July announcement, *see* https://www.frbservices.org/files/servicefees/pdf/071116_2017_check_pricing_customer_letter.pdf

For the October announcement, *see* <https://frbservices.org/files/communications/pdf/check/100316-check-modification-announcement.pdf>.

- The Reserve Banks will increase the minimum monthly fee for FedACH origination from \$45 to \$50 and the minimum monthly fee for FedACH receipt from \$35 to \$40.
- The Reserve Banks will increase the FedACH Account Servicing fee from \$45 to \$58. The Reserve Banks will also change the name of the FedACH Account Servicing fee to the FedACH Participation fee.
- The Reserve Banks will eliminate the on-us receipt credit of \$0.0032 per item.
- The Reserve Banks will increase the FedACH Information Extract File fee from \$100 to \$150 per file.
- The Reserve Banks will increase the FedPayments Reporter fee approximately 10 percent rounded to the nearest \$5 for each level of the tiered package pricing. The Reserve Banks also will introduce a new top tier, with a \$1,800 monthly fee, for a package that includes more than 10,000 reports.
- The Reserve Banks will introduce a fixed monthly fee and a volume-based tiered pricing structure for the FedGlobal ACH service. The tiered pricing structure will include per-item surcharges that are in addition to the standard FedACH origination fee of \$0.0032 and vary according to the transaction's destination, as seen in table 9. The top tier will cover monthly origination

volume of more than 500 items and include a \$185 fixed monthly fee and a per-item surcharge that is \$0.12 lower than current per-item fees. The next tier will cover monthly origination volume between 161 and 500 items and include a \$60 fixed monthly fee and a per-item surcharge that is \$0.13 higher than current per-item fees. The bottom tier will cover monthly origination volume between 0 and 160 items and include a \$20 fixed monthly fee and a per-item surcharge that is \$0.38 higher than current per-item fees.

Fedwire Funds

- The Reserve Banks will increase the Tier 1 per-item preincentive fee from \$0.790 to \$0.820 per transaction, increase the Tier 2 per-item preincentive fee from \$0.240 to \$0.245, and increase the Tier 3 per-item preincentive fee from \$0.155 to \$0.170 per transaction.⁴
- The Reserve Banks will increase the surcharge for offline transactions from \$55 to \$60.

National Settlement Services

- The Reserve Banks will keep prices at existing levels for the priced National Settlement Services.

⁴ The per-item preincentive fee is the fee that the Reserve Banks charge for transfers that do not qualify for incentive discounts. The Tier 1 per-item preincentive fee applies to the first 14,000 transfers, the Tier 2 per-item preincentive fee applies to the next 76,000 transfers, and the Tier 3 per-item preincentive fee applies to any additional transfers. The Reserve Banks apply an 80 percent incentive discount to transfers over 60 percent of a customer's historic benchmark volume.

Fedwire Securities

- The Reserve Banks will increase the online agency transfer fee from \$0.65 to \$0.77.
- The Reserve Banks will increase the offline origination and receipt surcharge transfer fee from \$66 to \$80.
- The Reserve Banks will increase the monthly agency issues maintenance fee from \$0.65 to \$0.77.
- The Reserve Banks will increase the monthly account maintenance fee from \$48.00 to \$57.50.
- The Reserve Banks will increase the joint custody origination surcharge from \$44 to \$46.
- The Reserve Banks will increase the claims adjustment fees from \$0.75 to \$0.80.

FedLine[®] Access Solutions

- The Reserve Banks will increase five existing monthly fees: (1) the FedLine Web[®] Plus fee from \$140 to \$160, (2) the FedLine Direct[®] Premier fee from \$6,500 to \$6,700, (3) the FedComplete[®] 200 Plus fee from \$1,300 to \$1,350, (4) the FedComplete 200 Premier fee from \$1,375 to \$1,425, and (5) the FedMail[®] Fax a la carte fee from \$70 to \$100.
- The Reserve Banks will implement a legacy software fee to encourage FedLine Direct customers to migrate to a new

messaging solution. The fee will be introduced in July 2017 at \$5,000 per month and will increase in steps to \$20,000 per month by the end of 2017.

- The Reserve Banks will remove the legacy e-mail service from all FedLine Web, Advantage[®], Command[®], and Direct packages and introduce a \$20-per-month fee to purchase an a la carte subscription to this service.
- The Reserve Banks will modify the E-Payments Routing Directory and make associated changes to FedLine packages and fees. A new automated download directory service will be introduced and available only to subscribers of plus- and premier-level FedLine packages. A la carte fees for additional directory download codes, ranging from \$75 to \$2,000 per month, will also be introduced. In addition, the new lineup of FedLine Exchange packages, discussed below, will allow customers that do not use FedLine for Federal Reserve Financial Services to access the directory.
- The Reserve Banks will introduce a new FedLine Exchange[®] service, along with two new associated packages: a base-level and premier-level. The base package will be priced at \$40 per month and include the manual download directory service. The premier package will be priced at \$125 per month and include both the manual and automated download directory services.

- The Reserve Banks will introduce a new FedMail package, priced at \$85 per month, which will include the same services as those included in the existing FedLine Exchange package to ensure continuity of this service. All existing FedLine Exchange subscribers will be transitioned to the new FedMail package and experience a fee increase of \$45.

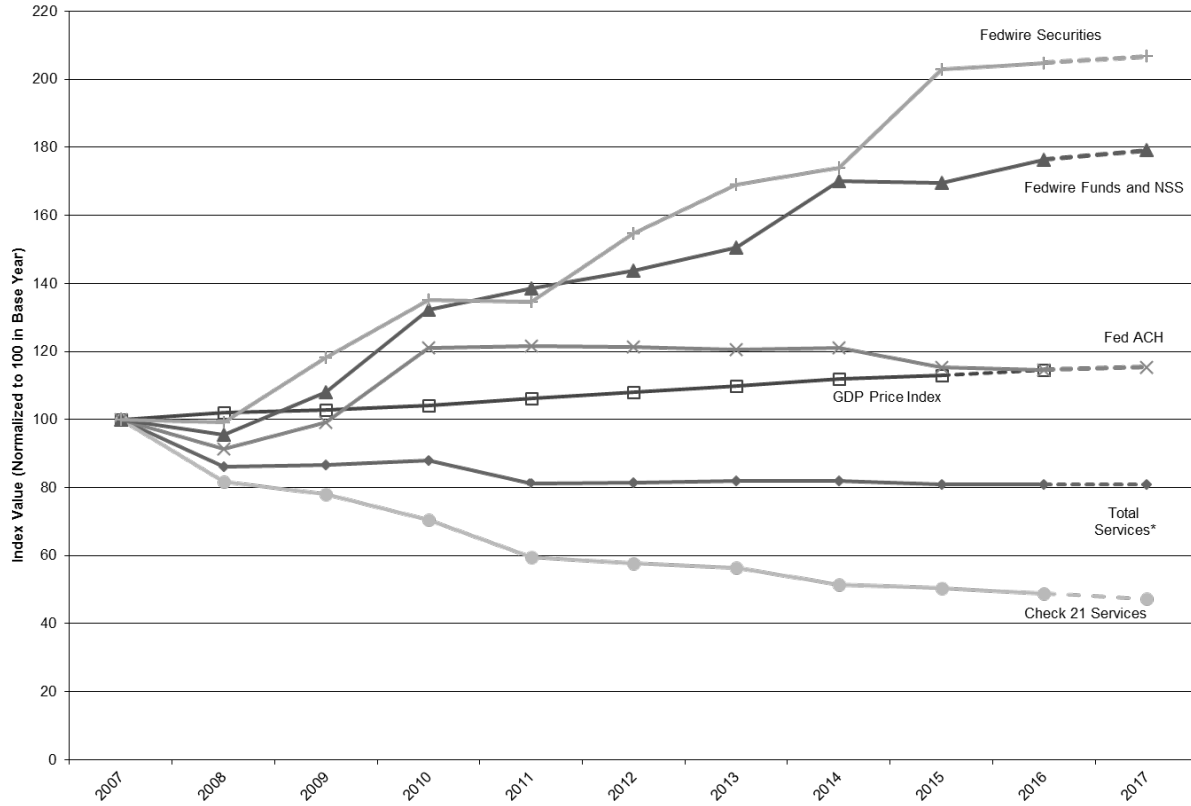
5. *2017 Price Index* — Figure 1 compares indexes of fees for the Reserve Banks' priced services with the GDP price index.⁵ The price index for Reserve Bank priced services is projected to decrease less than 1 percent in 2017 from the 2016 level. The price index for Check 21 services is projected to decrease approximately 3 percent. The price index for the FedACH Service is projected to increase nearly 1 percent. The price index for the Fedwire Funds and National Settlement Services is projected to increase approximately 2 percent. The price index for the Fedwire Securities Services is projected to increase nearly 1 percent. For the period 2007 to 2017, the price index for total priced services is expected to decrease approximately 19 percent.

⁵ For the period 2007 to 2015, the GDP price index increased 13 percent.

FIGURE 1

2016 PRICE INDEX

PRICE INDEXES FOR FEDERAL RESERVE PRICED SERVICES



* Total Services excludes legacy paper services which now have minimal volume and are expected to generate less than \$1 million in revenue in 2017.

B. Private Sector Adjustment Factor — The imputed debt financing costs, targeted ROE, and effective tax rate are based on a U.S. publicly traded firm market model.⁶ The method for calculating the financing costs in the PSAF requires determining the appropriate imputed levels of debt and equity and then applying the applicable financing rates. In this process, a pro forma balance sheet using estimated assets and liabilities associated with the Reserve Banks' priced services is developed, and the remaining elements that would exist are imputed as if these priced services were provided by a private business firm. The same generally accepted accounting principles that apply to commercial-entity financial statements apply to the relevant elements in the priced services pro forma financial statements.

The portion of Federal Reserve assets that will be used to provide priced services during the coming year is determined using information about actual assets and projected disposals and acquisitions. The priced portion of these assets is determined based on the allocation of depreciation and amortization expenses of each asset class. The priced portion of actual Federal Reserve liabilities consists of postemployment and postretirement benefits, accounts payable, and other liabilities. The priced portion of the actual net pension asset or liability is also included on the balance sheet.⁷

The equity financing rate is the targeted ROE produced by the capital asset pricing model (CAPM). 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 market risk premium. The risk-free rate is based on the

⁶ Data for U.S. publicly traded firms is from the Standard and Poor's Compustat® database. This database contains information on more than 6,000 U.S. publicly traded firms, which approximates the entirety of the U.S. market.

⁷ The pension assets are netted with the pension liabilities and reported as a net asset or net liability as required by ASC 715 *Compensation – Retirement Benefits*.

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 market risk premium is based on the monthly returns in excess of the risk-free rate over the most recent 40 years. The resulting ROE reflects the return a shareholder would expect when investing 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, an actual income tax expense is not explicitly calculated for Reserve Bank priced services. Instead, the Board targets a pretax ROE that would provide sufficient income to fulfill the priced services' imputed income tax obligations. To the extent that performance results are greater or less than the targeted ROE, income taxes are adjusted using the effective tax rate.

Capital structure. The capital structure is imputed based on the imputed funding need (assets less liabilities), subject to minimum equity constraints. Short-term debt is imputed to fund the imputed short-term funding need. Long-term debt and equity are imputed to meet the priced services long-term funding need at a ratio based on the capital structure of the U.S. publicly traded firm market. The level of equity must meet the minimum equity constraints, which follow the FDIC requirements for a well-capitalized institution. The priced services must maintain equity of at least 5 percent of total assets and 10 percent of risk-weighted assets.⁸ Any equity imputed that exceeds the amount needed to fund the priced services' assets and meet the

⁸ The FDIC rule, which was adopted as final on April 14, 2014, requires that well-capitalized institutions meet or exceed the following standards: (1) total capital to risk-weighted assets ratio of at least 10 percent, (2) tier 1 capital to risk-weighted assets ratio of at least 8 percent, (3) common equity tier 1 capital to risk-weighted assets ratio of at least 6.5 percent, and (4) a leverage ratio (tier 1 capital to total assets) of at least 5 percent. Because all of the Federal Reserve priced services' equity on the pro forma balance sheet qualifies as tier 1 capital, only requirements 1 and 4 are binding. The FDIC rule can be located at https://www.fdic.gov/news/board/2014/2014-04-08_notice_dis_c_fr.pdf.

minimum equity constraints is offset by a reduction in imputed long-term debt. When imputed equity is larger than what can be offset by imputed debt, the excess is imputed as investments in Treasury securities; income imputed on these investments reduces the PSAF.

Application of the Payment System Risk (PSR) Policy to the Fedwire Services.

The Board's PSR policy reflects the new international standards for financial market infrastructures (FMIs) developed by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions in the *Principles for Financial Market Infrastructures*. The revised policy retains the expectation that the Fedwire Services meet or exceed the applicable risk-management standards. Principle 15 states that an FMI should identify, monitor, and manage general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialize. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services. The Fedwire Services do not face the risk that a business shock would cause the service to wind down in a disorderly manner and disrupt the stability of the financial system. In order to foster competition with private-sector FMIs, however, the Reserve Banks' priced services will hold six months of the Fedwire Funds Service's current operating expenses as liquid financial assets and equity on the pro forma balance sheet.⁹ Current operating expenses are defined as normal business operating expenses on the income statement, less depreciation, amortization, taxes, and interest on debt. The Fedwire Funds Service's six months of current

⁹ This requirement does not apply to the Fedwire Securities Service. There are no competitors to the Fedwire Securities Service that would face such a requirement, and imposing such a requirement when pricing the securities services could artificially increase the cost of these services.

operating expenses are computed based on its preliminary 2017 budget at \$53.9 million. In 2017, \$14.1 million of equity was imputed to meet the FDIC capital requirements. No additional imputed equity was necessary to meet the PSR policy requirement.

Effective tax rate. Like the imputed capital structure, the effective tax rate is calculated based on data from U.S. publicly traded firms. The tax rate is the mean of the weighted average rates of the U.S. publicly traded firm market over the past 5 years.

Debt and equity financing. The imputed short- and long-term debt financing rates are derived from the nonfinancial commercial paper rates from the Federal Reserve Board's H.15 Selected Interest Rates release (AA and A2/P2) and the annual Merrill Lynch Corporate & High Yield Index rate, respectively. The rates for debt and equity financing are applied to the priced services estimated imputed short-term debt, long-term debt, and equity needed to finance short- and long-term assets and meet equity requirements.

The increase in the 2017 PSAF to \$16.6 million from \$13.1 million in 2016 is primarily attributable to a \$2.0 million increase in the cost of debt and a \$1.0 million increase in the return on equity offset by a \$0.3 million decrease in the incremental return on imputed equity necessary for PSR policy compliance, all three of which were driven primarily by increased imputed funding needs arising from higher retail float asset balances.

Projected 2017 Federal Reserve priced-services assets, reflected in table 3, have increased \$143.1 million from 2016. This increase is primarily due to a \$234.0 million increase in the balance of imputed investments in federal funds and a net \$42.8 million increase in long-term assets, inclusive of pension, Bank premises, furniture and equipment, and leasehold improvements and long-term prepayments. The increase was partially offset by an \$80.0 million decrease in items in process of collection and a \$55.8 million decrease in imputed investments in

Treasury securities. The significant increase in the imputed investments in federal funds balance is related to a reduction in debit float due to new deposit deadlines associated with the Endpoint-Culled ICL deposit option deadlines implemented in July 2016, which are intended to reduce float and items in process of collection. These balances had increased significantly as a result of the PSR policy implementation in 2015. The Endpoint-Culled ICL deposit option defers the portion of deposits the Federal Reserve is unable to present after a specific deadline during the processing cycle to limit instances where same-day credit is offered under the PSR policy for items that cannot be collected same day. The resulting balance of 2017 imputed investments in federal funds was sufficient to comply with the PSR policy expectations for Fedwire Funds, and no additional costs were incurred. As shown in table 3, imputed equity for 2017 is \$58.6 million, an increase of \$4.8 million from the equity imputed for 2016. In accordance with ASC 715, this amount includes an accumulated other comprehensive loss of \$635.1 million.

Table 4 reflects the portion of short- and long-term assets that must be financed with actual or imputed liabilities and equity. Debt and equity imputed to fund the 2017 priced services assets within the observed market leverage ratio produced an equity level that did not meet the FDIC minimum equity requirements. As a result, additional equity was imputed to meet the FDIC requirements, and imputed long-term debt was reduced. The ratio of capital to risk-weighted assets meets the required 10 percent of risk-weighted assets, and equity exceeds 5 percent of total assets (table 6). In 2017, long-term debt and equity was imputed to meet the asset funding requirements and reflects the leverage ratio observed in the market; additional equity of \$14.1 million was required (table 5) to meet the market leverage ratio.

Table 5 shows the derivation of the 2017 and 2016 PSAF. Financing costs for 2017 are \$2.7 million higher than in 2016. In addition to the increase in the levels of debt and

equity mentioned above, the cost of equity increased in 2017 to 41.6 percent from 41.5 percent in 2016. The increased equity balance and the slightly higher cost of equity result in a pretax ROE that is \$1.0 million higher than the 2016 pretax ROE. Imputed sales taxes increased to \$3.2 million in 2017 from \$2.8 million in 2016. The priced services portion of the Board's expenses increased \$0.4 million to \$5.4 million in 2017. The effective income tax rate used in 2017 increased to 22.7 percent from 21.6 percent in 2016.

Table 3
Comparison of Pro Forma Balance Sheets for Budgeted Federal Reserve Priced Services
(millions of dollars – projected average for year)

	<u>2017</u>	<u>2016</u>	<u>Change</u>
Short-term assets			
Receivables	\$ 36.6	\$ 35.6	\$ 1.1
Materials and supplies	0.6	0.5	0.1
Prepaid expenses	11.2	10.2	1.0
Items in process of collection ¹⁰	241.0	321.0	(80.0)
Total short-term assets	<u>289.4</u>	<u>367.2</u>	<u>(77.9)</u>
Imputed investments¹¹			
Imputed investment in Treasury Securities	\$ -	\$ 55.8	\$ (55.8)
Imputed investment in Fed Funds	245.0	11.0	234.0
Total imputed investments	<u>245.0</u>	<u>66.8</u>	<u>178.2</u>
Long-term assets			
Premises ¹²	\$ 128.7	\$ 111.0	\$ 17.7
Furniture and equipment	39.0	38.5	0.5
Leasehold improvements and long-term prepayments	104.8	89.5	15.3
Pension asset	10.9	-	10.9

¹⁰ Credit float, which represents the difference between items in process of collection and deferred credit items, occurs when the Reserve Banks debit the paying bank for transactions prior to providing credit to the depositing bank. Float is directly estimated at the service level.

¹¹ Consistent with the Board's PSR policy, the Reserve Banks' priced services will hold six months of the Fedwire Funds Service's current operating expenses as liquid net financial assets and equity on the pro forma balance sheet. Six months of the Fedwire Funds Service's projected current operating expenses is \$53.9 million. In 2017, \$58.6 million of equity was imputed to meet the regulatory capital requirements.

¹² Includes the allocation of Board of Governors assets to priced services of \$1.2 million for 2017 and \$1.3 million for 2016.

Deferred tax asset	186.1	187.9	(1.8)
Total long-term assets	<u>469.6</u>	<u>426.8</u>	<u>42.8</u>
Total assets	<u><u>\$ 1,003.9</u></u>	<u><u>\$ 860.9</u></u>	<u><u>\$ 143.1</u></u>
Short-term liabilities			
Deferred credit items	\$ 486.0	\$ 332.0	\$ 154.0
Short-term debt	18.1	19.0	(0.9)
Short-term payables	30.2	27.2	3.0
Total short-term liabilities	<u>534.4</u>	<u>387.2</u>	<u>156.1</u>
Long-term liabilities			
Pension liability	\$ -	\$ 17.6	\$ (17.6)
Long-term debt	48.4	0.0	48.4
Postemployment/postretirement benefits and net pension liabilities ¹³	362.5	411.3	48.7
Total liabilities	<u>\$ 945.3</u>	<u>\$ 807.1</u>	<u>\$ 138.3</u>
Equity¹⁴	<u>\$ 58.6</u>	<u>\$ 53.8</u>	<u>\$ 4.8</u>
Total liabilities and equity	<u><u>\$ 1,003.9</u></u>	<u><u>\$ 860.9</u></u>	<u><u>\$ 143.1</u></u>

Table 4

Imputed Funding for Priced-Services Assets
(millions of dollars)

	2017	2016
A. Short-term asset financing		
Short-term assets to be financed		
Receivables	\$ 36.6	\$ 35.6
Materials and supplies	0.6	0.5
Prepaid expenses	11.2	10.2
Total short-term assets to be financed	<u>\$ 48.4</u>	<u>\$ 46.2</u>
Short-term payables	30.2	27.2
Net short-term assets to be financed	<u>\$ 18.1</u>	<u>\$ 19.0</u>
Imputed short-term debt financing ¹⁵	<u>\$ 18.1</u>	<u>\$ 19.0</u>

¹³ Includes the allocation of Board of Governors liabilities to priced services of \$0.6 million for 2017 and 2016.

¹⁴ Includes an accumulated other comprehensive loss of \$635.1 million for 2017 and \$666.1 million for 2016, which reflects the ongoing amortization of the accumulated loss in accordance with FAS 158 [ASC 715]. Future gains or losses, and their effects on the pro forma balance sheet, cannot be projected. See table 5 for calculation of required imputed equity amount.

¹⁵ See table 5 for calculation.

B. Long-term asset financing

Long-term assets to be financed		
Premises	\$ 128.7	\$ 111.0
Furniture and equipment	39.0	38.5
Leasehold improvements and long-term prepayments	104.8	89.5
Pension asset	10.9	-
Deferred tax asset	186.1	187.9
Total long-term assets to be financed	\$ 469.6	\$ 426.8
Pension liability	-	17.6
Postemployment/postretirement benefits and net pension liabilities	362.5	411.3
Net long-term assets to be financed	\$ 107.0	\$ (2.0)
Imputed long-term debt ¹⁵	\$ 48.4	\$ -
Imputed equity ¹⁵	58.6	53.8
Total long-term financing	\$ 107.0	\$ 53.8

Table 5
Derivation of the 2017 and 2016 PSAF
(dollars in millions)

	2017		2016	
	Debt	Equity	Debt	Equity
A. Imputed long-term debt and equity				
Net long-term assets to finance	\$ 107.0	\$ 107.0	\$ (2.0)	\$ (2.0)
Capital structure observed in market	58.4%	41.6%	58.5%	41.5%
Pre-adjusted long-term debt and equity	\$ 62.5	\$ 44.5	\$ (1.2)	\$ (0.8)
Equity adjustments ¹⁶ :				
Equity to meet capital requirements	-	58.6	-	51.1
Adjustment to debt and equity funding given capital requirements ¹⁷	(14.1)	14.1	1.2	(1.2)
Adjusted equity balance	-	58.6	-	(2.0)

¹⁶ If minimum equity constraints are not met after imputing equity based on the capital structure observed in the market, additional equity is imputed to meet these constraints. The long-term funding need was met by imputing long-term debt and equity based on the capital structure observed in the market (see tables 4 and 6). In 2017, the amount of imputed equity exceeded the minimum equity requirements for risk-weighted assets.

¹⁷ Equity adjustment offsets are due to a shift of long-term debt funding to equity in order to meet FDIC capital requirements for well-capitalized institutions.

Equity to meet capital requirements ¹⁸	-	-	-	53.1
Total imputed long-term debt and equity	<u>\$ 48.4</u>	<u>\$ 58.6</u>	<u>\$ -</u>	<u>\$ 51.1</u>
B. Cost of capital				
Elements of capital costs				
Short-term debt ¹⁹	\$ 18.1 x 0.6% =	\$ 0.1	\$ 19.0 x 0.3% =	\$ 0.1
Long-term debt ¹⁹	48.4 x 4.0% =	1.9	- x 4.2% =	-
Equity ²⁰	58.6 x 10.2% =	6.0	51.1 x 9.8% =	5.0
		<u>\$ 8.0</u>		<u>\$ 5.1</u>
C. Incremental cost of PSR policy				
Equity to meet policy	\$ - x 10.2% =	<u>\$ -</u>	\$ 2.7 x 9.8% =	<u>\$ 0.3</u>
D. Other required PSAF costs				
Sales taxes	\$ 3.2		\$ 2.8	
Board of Governors expenses	<u>5.4</u>		<u>5.0</u>	
		8.6		7.8
		<u>\$ 16.6</u>		<u>\$ 13.1</u>
E. Total PSAF				
As a percent of assets		1.7%		1.5%
As a percent of expenses		3.9%		3.6%
F. Tax rates		22.7%		21.6%

Table 6
Computation of 2017 Capital Adequacy for Federal Reserve Priced Services
(dollars in millions)

	<u>Assets</u>	<u>Risk Weight</u>	<u>Weighted Assets</u>
Imputed investments:			
1-Year Treasury securities ²¹	\$ -	-	\$ -

¹⁸ Additional equity in excess of that needed to fund priced services assets is offset by an asset balance of imputed investments in treasury securities.

¹⁹ Imputed short-term debt and long-term debt are computed at table 4.

²⁰ The 2017 ROE is equal to a risk-free rate plus a risk premium (beta * market risk premium). The 2017 after-tax CAPM ROE is calculated as 0.30% + (1.0 * 7.59%) = 7.89%. Using a tax rate of 22.7%, the after-tax ROE is converted into a pretax ROE, which results in a pretax ROE of (7.89% / (1-22.7%)) = 10.21%. Calculations may be affected by rounding.

²¹ If minimum equity constraints are not met after imputing equity based on all other financial statement components, additional equity is imputed to meet these constraints. Additional equity imputed to meet minimum equity requirements is invested solely in Treasury securities. The

Federal funds ²²	245.0	0.2	49.0
Total imputed investments	245.0		49.0
Receivables	\$ 36.6	0.2	\$ 7.3
Materials and supplies	0.6	1.0	0.6
Prepaid expenses	11.2	1.0	11.2
Items in process of collection	241.0	0.2	48.2
Premises	128.7	1.0	128.7
Furniture and equipment	39.0	1.0	39.0
Leasehold improvements and long-term prepayments	104.8	1.0	104.8
Pension asset	10.9	1.0	10.9
Deferred tax asset	186.1	1.0	186.1
Total	\$ 1,003.9		\$ 585.8
Imputed equity:			
Capital to risk-weighted assets	10.0%		
Capital to total assets	5.8%		

C. *Check Service* — Table 7 shows the 2015 actual, 2016 estimated, and 2017 budgeted cost-recovery performance for the commercial check service.

Table 7

Check Service Pro Forma Cost and Revenue Performance					
(dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2015 (actual)	160.6	140.2	20.4	2.0	113.0%
2016 (estimate)	152.9	138.1	14.8	1.3	109.7%
2017 (budget)	141.2	133.7	7.5	1.4	104.5%

imputed investments are 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>.

²² The investments are imputed based on the amounts arising from the collection of items prior to providing credit according to established availability schedules.

1. *2016 Estimate* — The Reserve Banks estimate that the check service will recover 109.7 percent of total expenses and targeted ROE, compared with a 2016 budgeted recovery rate of 105.7 percent. Greater-than-expected check volumes processed by the Reserve Banks and lower-than-expected costs have influenced significantly the check service's cost recovery.

The decline in Reserve Bank check volume, which is attributable to the decline in the number of checks written generally, was not as great as anticipated. Through August, total commercial forward check volume is 3.9 percent lower and total commercial return check volume is 3.3 percent lower than for the same period last year. For full-year 2016, the Reserve Banks estimate that their total forward check volume will decline 5.2 percent (compared with a budgeted decline of 6.2 percent) and their total return check volume will decline 6.8 percent (compared with a budgeted decline of 12.7 percent) from 2015 levels.²³

2. *2017 Pricing* — The Reserve Banks expect the check service to recover 104.5 percent of total expenses and targeted ROE in 2017. The Reserve Banks project revenue to be \$141.2 million, a decline of 7.7 percent from the 2016 estimate. This decline is driven largely by the Reserve Banks' restructured FedForward, FedReturn, and FedReceipt fee schedules, discussed below.²⁴ Total expenses for the check service are projected to decrease to \$133.7 million, a decline of \$4.4 million, or 3.2 percent, from 2016 expenses primarily due to

²³ Total Reserve Bank forward check volumes are expected to drop from 5.5 billion in 2015 to 5.2 billion in 2016. Total Reserve Bank return check volumes are expected to drop from 33.2 million in 2015 to 30.9 million in 2016.

²⁴ This decline is also driven, in part, by anticipated continuing decline in the number of checks written generally. The Reserve Banks estimate that total commercial forward check volumes in 2017 will decline 5.0 percent, to 4.9 billion, and total commercial return check volumes will decline 10.1 percent to 27.8 million in 2017.

reduced operating costs, including cost savings associated with increased efficiencies of the Reserve Banks' customer support services for the FedACH and check service lines.

In July 2016, the Reserve Banks announced restructured FedForward, FedReturn and FedReceipt fee schedules designed to reflect the efficiencies of electronic check processing and better serve the needs of the marketplace in today's electronic environment.²⁵ The Reserve Banks announced the restructured fee schedules earlier in the year to provide customers with sufficient notice.²⁶

Specifically, the Reserve Banks announced simplified FedForward and FedReturn deposit products. The simplified deposit products will offer two fixed-fee options: a per-image cash letter (ICL) fee and a daily subscription fee.²⁷ Both options will offer standard and premium variations, with premium variations offering higher fixed and lower per-item fees than the standard variations. Both options will also include per-item fees, based on a modified volume-based tiered pricing structure, with tiers defined by volume of items received by a

²⁵ As part of the Board's approval of the Reserve Banks' 2016 check fee schedules, the Board noted that the Reserve Banks would announce changes to the check service to reflect the efficiencies of today's electronic check processing environment. 79 FR 65937, 70785 (Nov. 16, 2015).

²⁶ A full summary of the modifications was included with Reserve Bank's announcement and is available at https://frbsecurities.org/files/servicefees/pdf/071116_2017_check_pricing_summary_of_changes.pdf. The Reserve Banks' modified fee schedules are available at https://www.frbsecurities.org/servicefees/check_services_2016.html.

²⁷ The per-ICL fee structure offers a fixed fee for each deposited image cash letter and a per-item fee for each item in the cash letter. The subscription structure offers a daily subscription fee and a per-item fee for each item. Per-item fees are determined by the Reserve Banks' volume-based tiered pricing structure.

chartered institution from the Reserve Banks.²⁸ Tiers for the three premium variations of the daily subscription fee deposit options, FedFoward Premium Daily Fee A, B, and C and FedReturn Premium Daily Fee A, will be based only on volume received by a chartered institution from a subset of the Reserve Banks' customers.²⁹ The volumes used to define all tiers will be evaluated and set annually as part of the Board's approval of annual fee schedules.³⁰

The Premium Daily Fee deposit options will include a fifth tier, Tier 0, comprised of routing numbers for which the Reserve Banks currently receive little to no volume from the specified subset of Reserve Bank customers (and therefore cannot currently be assigned to the other tiers with sufficient certainty). Tier 0 will also be evaluated annually, along with all other tiers, so that if volume migrates to routing numbers in tier 0 (enabling more information on which to assign a tier) those routing numbers will be moved to the appropriate tier.

In October 2016, the Reserve Banks announced minor modifications to the Premium Daily Fee products.³¹ To clarify Tier 0's transitional purpose, the Reserve Banks announced that routing numbers cannot be placed in Tier 0 if they have previously been assigned to one of the other tiers. Based on additional review of Tier 0's composition, the Reserve Banks also announced that a routing number will only be assigned to Tier 0 if the chartered institution

²⁸ Under the tiered pricing structure, depositors pay a variable per-item fee based on the endpoint to which an item is being delivered. Tiers are currently determined at the individual routing number.

²⁹ The Reserve Banks believe the top 15 customers, which account for approximately 33 percent of the Reserve Banks' deposit volume, represent the most-likely users of the Premium Daily Fee deposit options because of the high daily fixed fees and lower per-item fees.

³⁰ The tiers for 2017 are available at https://www.frbservices.org/servicefees/check21_endpoint_listing.html.

³¹ For the announcement, see <https://frbservices.org/files/communications/pdf/check/100316-check-modification-announcement.pdf>.

receives a minimum of 150 items daily.³² As a result, the Reserve Banks determined that approximately 3,800 routing numbers initially included in Tier 0 could more appropriately be placed in another tier, Tier 4.³³

The Reserve Banks also announced that most sorted-deposit options will be eliminated, including the Fine Sort ICL, Deferred Fine Sort ICL, and Fixed Mixed ICL deposit options.³⁴ The Reserve Banks announced that they will not, however, modify the Endpoint-Culled ICL deposit option, the Dollar Cut Mixed ICL (renamed “Dollar-Culled ICL”) option, or the Deferred Mixed ICL (renamed “Deferred ICL”) option.³⁵ The Reserve Banks will continue to allow separately sorted Treasury Check, Postal Money Order, and Savings Bond ICLs.

³² The Reserve Banks determined after further analysis that a floor of 150 items daily was appropriate to avoid placing small institutions in Tier 0 because of limited total volumes (institutions below the floor receive an average of only 47 items daily).

³³ To minimize any customer impact of these changes, the Reserve Banks also reduced the Tier 4 per-item fees and daily fixed fees for two of the Premium Daily Fee deposit options.

³⁴ In a paper check processing environment, the fine-sort products allowed the Reserve Banks to gain efficiencies because the checks did not require processing on reader-sorters. In today’s electronic check processing environment, all ICLs are processed through the Reserve Banks’ electronic system in the same manner, and the Reserve Banks do not gain any efficiencies by having the depositing bank fine-sort electronic checks before deposit.

³⁵ Under the Endpoint-Culled ICL deposit option (offered only at 12:00 p.m. ET), items drawn on routing numbers enrolled in the Reserve Banks’ Premium Presentment service and those presented as substitute checks are culled from the cash letter by the Reserve Banks and placed into a Deferred Imaged Cash Letter, with depositors receiving next-day credit availability on those items. The product allows the Reserve Banks to limit instances where same-day credit is offered for items that cannot be collected same day (the Reserve Banks similarly cull items deposited on the 12:00 p.m. ET deposit deadline offered as part of the Premium Daily Fee deposit options). Under the Deferred ICL deposit option, credit for all items deposited is deferred until the next business day. Under the Dollar-Culled ICL deposit option, items written for less than \$1,000, plus all items for \$1,000 or more that are drawn on a substitute check endpoint, are culled from the cash letter by the Reserve Banks and placed into a Deferred Imaged Cash Letter, with depositors receiving the next-day credit availability of that deposit option. Items of \$1,000 or more (except for those that will be presented as substitute checks) are kept in

Finally, the Reserve Banks announced modifications to their FedReceipt product, including reduced FedReceipt fees for forward and return items and elimination of the FedReceipt Plus Deposit Discount for both FedForward and FedReturn deposits.³⁶ The Reserve Banks also announced that they will modify volume tiers for their Courtesy Delivery service (renamed “Accelerated Delivery Service”) and that the Retail Payments Premium Receiver discount will be applied to items deposited by a chartered institution rather than on items received. Both products remain otherwise unchanged.

The Reserve Banks estimate that the price changes will result in a 3.5 percent average price decrease for check customers.

The primary risks to the Reserve Banks’ ability to achieve budgeted 2017 cost recovery for the check service include lower-than-expected check volume due to reductions in check writing overall and competition from correspondent banks, aggregators, and direct exchanges, which would result in lower-than-anticipated revenue.

the original cash letter, with same-day credit availability at the next deadline according to the Federal Reserve Policy on Payment System Risk.

³⁶ The Reserve Banks implemented the deposit discount structure to encourage banks to transition from paper to electronic items. With the Reserve Banks presenting and returning more than 99 percent of items electronically, the discount is no longer necessary to encourage banks to move away from paper.

D. *FedACH Service* — Table 8 shows the 2015 actual, 2016 estimate, and 2017 budgeted cost-recovery performance for the commercial FedACH service.

Table 8

FedACH Service Pro Forma Cost and Revenue Performance					
(dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2015 (actual)	125.5	122.8	2.7	1.8	100.7%
2016 (estimate)	130.7	131.0	-0.3	1.3	98.8%
2017 (budget)	140.4	145.4	-5.1	1.6	95.5%

1. *2016 Estimate* — The Reserve Banks estimate that the FedACH service will recover 98.8 percent of total expenses and targeted ROE, compared with a 2016 budgeted recovery rate of 99.5 percent. Through August, FedACH commercial origination and receipt volume was 5.8 percent higher than it was during the same period last year. For full-year 2016 the Reserve Banks estimate that FedACH commercial origination and receipt volume will increase 4.9 percent, compared with a budgeted increase of 4.5 percent. Although volume is higher than originally projected, the Reserve Banks estimate lower-than-budgeted 2016 cost recovery due to higher than anticipated environmental costs such as an increase in pension expense and refinement in the accounting treatment between capital and expenses for the FedACH technology modernization program.³⁷

2. *2017 Pricing* — The Reserve Banks expect the FedACH service to recover 95.5 percent of total expenses and targeted ROE in 2017. FedACH commercial origination and

³⁷ The Reserve Banks have been engaged in a multiyear technology initiative to modernize the FedACH processing platform by migrating the service from a mainframe system to a distributed computing environment. In 2016, the Reserve Banks chose a commercially available option as their processing solution to modernize the FedACH platform.

receipt volume is projected to grow 5.7 percent, contributing to an increase of \$9.7 million in total revenue from the 2016 estimate. Total expenses are budgeted to increase \$14.4 million from 2016 expenses, primarily because of costs associated with the development of a new FedACH technology platform.

The Reserve Banks will increase the minimum monthly fee for forward origination from \$45 to \$50 and the minimum monthly fee for receipt from \$35 to \$40.³⁸ The Reserve Banks also will increase the FedACH Account Servicing Fee from \$45 to \$58 and change the fee name to the “FedACH Participation fee,” to reflect more accurately the intention of the fee, which is to recover fixed costs related to participation in the FedACH network. The Reserve Banks also will eliminate the on-us receipt credit of \$0.0032 per item. All on-us items will be charged the current FedACH receipt per-item fee of \$0.0032 per item.

The Reserve Banks will increase the FedACH Information Extract File fee from \$100 to \$150 per file. The Reserve Banks also will increase the FedPayments Reporter fee approximately 10 percent rounded to the nearest \$5 for each level of the tiered package pricing. They also will introduce a new top tier, with a \$1,800 monthly fee, for a package that includes more than 10,000 reports.

³⁸ Any originating depository financial institution (ODFI) incurring less than \$50 for the following fees will be charged the difference to reach the minimum: forward value and nonvalue item origination fees, FedGlobal ACH origination surcharges, and FedACH SameDay forward origination surcharges.

Any receiving depository financial institution (RDFI) that incurs less than \$40 in receipt fees and originates forward value and nonvalue items incurring less than \$50 in origination fees will only be charged the difference in the origination fee to reach the minimum monthly origination fee of \$50. Any RDFI that incurs less than \$40 in receipt fees and is not originating forward value and nonvalue items will incur the \$40 minimum monthly fee for receipt.

Further, the Reserve Banks will introduce a fixed monthly fee and a volume-based tiered pricing structure for the FedGlobal ACH service.³⁹ The tiered pricing structure will include per-item surcharges that are in addition to the standard FedACH origination fee of \$0.0032 and vary according to the transaction’s destination, as seen in table 9. The top tier will cover monthly origination volume over 500 items and include a \$185 fixed monthly fee and a per-item surcharge that is \$0.12 lower than current per-item fees. The next tier will cover monthly origination volume between 161 and 500 items and include a \$60 fixed monthly fee and a per-item surcharge that is \$0.13 higher than current per-item fees. The bottom tier will cover monthly origination volume between 0 and 160 items and include a \$20 fixed monthly fee and a per-item surcharge that is \$0.38 higher than current per-item fees.

Table 9

FedGlobal ACH Service Volume-Based Origination Surcharges⁴⁰					
VOLUME (ITEMS)	FIXED MONTHLY FEE	CANADA (PER TRANSACTION)	MEXICO (PER TRANSACTION)	PANAMA (PER TRANSACTION)	EUROPE (PER TRANSACTION)
More than 500	\$185	\$0.50	\$0.55	\$0.60	\$1.13
161-500	\$60	\$0.75	\$0.80	\$0.85	\$1.38
0-160	\$20	\$1.00	\$1.05	\$1.10	\$1.63

The Reserve Banks estimate that the price changes will result in a 5.3 percent average price increase for FedACH customers.

While the Reserve Banks are not budgeted to fully recover costs in 2017, they are expected to fully recover costs following finalization of the FedACH technology modernization

³⁹ The FedGlobal ACH pricing changes meet the Federal Reserve Board’s guidance on the Reserve Banks’ use of volume-based pricing for electronic payment services and products. 62 FR 14146 (March 25, 1997)(FRB Docket No. R-0967).

⁴⁰ These per-item surcharges are in addition to the standard domestic FedACH origination fees.

project. The Reserve Banks' FedACH fee increases balance raising fees dramatically during a temporary period of increased costs associated with a defined technology upgrade that will be expected to result in significant over recovery following this defined period. The approach to moderately increase fees only is consistent with a multi-year strategy to minimize pricing volatility and provide long-term price stability for customers while undertaking the ongoing technology upgrade that will result in FedACH incurring higher expenses over the next few years.

The primary risks to the Reserve Banks' ability to achieve budgeted 2017 cost recovery for the FedACH service are cost overruns associated with unanticipated problems related to efforts to modernize the FedACH processing platform and higher-than-expected support and overhead costs. Other risks include lower-than-expected volume and associated revenue due to unanticipated mergers and acquisitions and loss of market share due to direct exchanges and a shift of volume to the private-sector operator.

E. Fedwire Funds and National Settlement Services — Table 10 shows the 2015 actual, 2016 estimate, and 2017 budgeted cost-recovery performance for the Fedwire Funds and National Settlement Services.

Table 10

Fedwire Funds and National Settlement Services Pro Forma Cost and Revenue Performance					
(dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2015 (actual)	116.0	110.1	5.9	1.6	103.9%
2016 (estimate)	123.1	118.0	5.1	1.3	103.2%
2017 (budget)	128.8	126.3	2.6	1.3	101.0%

1. *2016 Estimate* — The Reserve Banks estimate that the Fedwire Funds and National Settlement Services will recover 103.2 percent of total expenses and targeted ROE, compared with a 2016 budgeted recovery rate of 99.4 percent. Through August, Fedwire Funds Service online volume was 3.6 percent higher than for the same period last year. For full-year 2016, the Reserve Banks estimate Fedwire Funds Service online volume to increase 1.9 percent from 2015 levels, compared with the 0.3 percent volume decrease that had been budgeted. The Reserve Banks do not expect the volume growth in 2015 and early 2016 to continue at that level through year-end. Through August, National Settlement Service settlement file volume was 1.0 percent lower than for the same period last year, and settlement entry volume was 3.0 percent lower. For the full year, the Reserve Banks estimate that settlement file volume will decrease 1.1 percent (compared with a budgeted 5.3 percent increase) and settlement entry volume will decrease 4.0 percent from 2015 levels (compared with a budgeted 0.8 percent decrease). NSS settlement file and entry volumes are anticipated to be lower than budgeted, as the onboarding of a new arrangement originally expected to occur in the fourth quarter of 2016 has now been delayed until 2017.

2. *2017 Pricing* — The Reserve Banks expect the Fedwire Funds and National Settlement Services to recover 101.0 percent of total expenses and targeted ROE. Revenue is projected to be \$128.8 million, an increase of 4.6 percent from the 2016 estimate. The Reserve Banks project total expenses to be \$8.3 million higher than the 2016 expenses, primarily because of capitalized software costs associated with the Fedwire Funds modernization program that will be amortized until January 2022 and other costs related to new resiliency initiatives.

The Reserve Banks will adjust the incentive pricing fees for the Fedwire Funds Service by increasing the Tier 1 per-item preincentive fee (the fee before volume discounts are

applied) from \$0.790 to \$0.820, increasing the Tier 2 per-item preincentive fee from \$0.240 to \$0.245, and increasing the Tier 3 per-item preincentive fee from \$0.155 to \$0.170.⁴¹ The Reserve Banks also will increase the surcharge for offline transactions from \$55 to \$60. The Reserve Banks estimate that the price changes will result in a 3.3 percent average price increase for Fedwire Funds customers.

The Reserve Banks will not change National Settlement Service fees for 2017.

The primary risks to the Reserve Banks' ability to achieve budgeted 2017 cost recovery for these services are cost overruns from new initiatives to improve resiliency and operational functionality.

F. *Fedwire Securities Service* — Table 11 shows the 2015 actual, 2016 estimate, and 2017 budgeted cost recovery performance for the Fedwire Securities Service.⁴²

Table 11

Fedwire Securities Service Pro Forma Cost and Revenue Performance					
(dollars in millions)					
YEAR	1 REVENUE	2 TOTAL EXPENSE	3 NET INCOME (ROE) [1-2]	4 TARGETED ROE	5 RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2015 (actual)	27.1	24.7	2.4	0.3	108.2%
2016 (estimate)	25.8	26.2	-0.4	0.3	97.6%
2017 (budget)	29.0	29.4	-0.4	0.3	97.5%

⁴¹ The per-item preincentive fee is the fee that the Reserve Banks charge for transfers that do not qualify for incentive discounts. The Tier 1 per-item preincentive fee applies to the first 14,000 transfers, the Tier 2 per-item preincentive fee applies to the next 76,000 transfers, and the Tier 3 per-item preincentive fee applies to any additional transfers. The Reserve Banks apply an 80 percent incentive discount to transfers over 60 percent of a customer's historic benchmark volume.

⁴² 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 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.

1. *2016 Estimate* — The Reserve Banks estimate that the Fedwire Securities Service will recover 97.6 percent of total expenses and targeted ROE, close to the 2016 budgeted recovery rate of 97.5 percent.

Through August, Fedwire Securities Service online agency transfer volume was 13.1 percent lower than during the same period last year. For full-year 2016, the Reserve Banks estimate Fedwire Securities Service online agency transfer volume will decline 13.5 percent from 2015 levels, compared with a budgeted decline of 5.4 percent. The lower-than-expected online agency transfer volume resulted from lower-than-projected Agency debt issuance, as Fannie Mae and Freddie Mac continue to reduce the overall size of their portfolios in accordance with Federal Housing Finance Agency guidelines. In addition, new mortgage originations and mortgage paydowns from refinancing activity are expected to decline before year-end if interest rates rise in the fourth quarter, which will result in falling levels of issuance and settlement activity for agency mortgage-backed securities over Fedwire Securities. Through August, account maintenance volume was 4.4 percent lower than during the same period last year. For the full year 2016, the Reserve Banks estimate that account maintenance volume will decline 5.0 percent over 2015 levels, compared with a budgeted decline of 8.8 percent. The higher account maintenance volume is the result of conservative estimates for customer account closures that have not materialized.

2. *2017 Pricing* — The Reserve Banks expect the Fedwire Securities Service to recover 97.5 percent of total expenses and targeted ROE in 2017. The Reserve Banks project that online agency transfer activity will decline 7.5 percent in 2017, the number of accounts maintained will decrease 7.4 percent, and the number of agency issues maintained will decrease

2.4 percent.⁴³ The projected decline in both online transfer and account maintenance volume in 2017 reflects, in part, an anticipated drop in demand resulting from JP Morgan Chase's exit from the U.S. government securities clearing and settlement business for its broker-dealer services by mid-2018.⁴⁴ Moreover, as in 2016, the Reserve Banks continue to project a decrease in online transfers as interest rates may possibly increase, leading to less mortgage refinancing, and, in turn, reducing issuances of mortgage-backed securities. In addition, the reduction in agency debt issuance will continue to reflect a reduction in government-sponsored enterprise portfolios, as required by the U.S. Treasury and the Federal Housing Finance Agency, leading to a reduced funding need for new debt issuance.⁴⁵ New settlement logic launched by the Fixed Income Clearing Corporation in January 2016, and further changes in mid-2017 are also expected to reduce the number of agency debt transfers over the Fedwire Securities Service.⁴⁶

Revenue is projected to be \$29.0 million, an increase of 12.4 percent from the 2016 estimate; this projected rise in revenue results from higher fees, discussed below, that offset the anticipated online transfer and account maintenance volume declines. The Reserve Banks

⁴³ The online transfer fee, monthly account maintenance fee, and monthly issue maintenance fee accounted for approximately 93 percent of total Fedwire Securities Service revenue through June 2016.

⁴⁴ JP Morgan Chase announced in July 2016, its intent to exit the government securities clearing and settlement business. It is expected that the exit will result in significant reductions of transfer volume over Fedwire Securities as more transactions shift to in-house activity at the remaining custodian banks.

⁴⁵ Government-sponsored enterprises are reducing their retained portfolio by 15 percent annually through 2018, as mandated by the Senior Preferred Stock Purchase Agreements, until each portfolio reaches a target level of \$250 billion. Further information on these agreements can be found at: <http://www.fhfa.gov/Conservatorship/Pages/Senior-Preferred-Stock-Purchase-Agreements.aspx>.

⁴⁶ Information on the Fixed Income Clearing Corporation's new settlement logic can be found at <http://www.dtcc.com/~media/Files/pdf/2015/6/22/GOV045-15.pdf>.

also project that 2017 expenses will increase by \$3.2 million, compared with 2016 expenses, reflecting higher expected operating costs. Higher operating costs in 2017 reflect the amortization of capital software costs from completed modernization initiatives as well as the advancement of new initiatives to improve resiliency and operational functionality.

The Reserve Banks will increase the online agency transfer fee from \$0.65 to \$0.77 and increase the offline origination and receipt surcharge transfer fee from \$66 to \$80. The Reserve Banks also will increase the monthly agency issues maintenance fee from \$0.65 to \$0.77 and will increase the monthly account maintenance fee from \$48 to \$57.50. Moreover, the Reserve Banks will increase the joint custody origination surcharge from \$44 to \$46. Finally, the Reserve Banks will increase the claims adjustment fees from \$0.75 to \$0.80. The Reserve Banks estimate that the price changes will result in an 18.0 percent average price increase for Fedwire Securities customers.

The primary risks to the Reserve Banks' ability to achieve budgeted 2017 cost recovery for these services are lower-than-expected volume resulting from the pace of structural changes in government securities settlement, and cost overruns from new initiatives to improve resiliency and operational functionality.

G. *FedLine Access* — The Reserve Banks charge fees for the electronic connections that depository institutions use to access priced services and allocate the costs and revenue associated with this electronic access to the various priced services. There are currently five FedLine channels through which customers can access the Reserve Banks' priced services: FedMail, FedLine Web, FedLine Advantage, FedLine Command, and FedLine Direct.⁴⁷ The

⁴⁷ FedMail, FedLine Web, FedLine Advantage, FedLine Command, and FedLine Direct are registered trademarks of the Federal Reserve Banks.

Reserve Banks package these channels into nine FedLine packages, described below, that are supplemented by a number of premium (or a la carte) access and accounting information options. In addition, the Reserve Banks offer FedComplete packages, which are bundled offerings of a FedLine Advantage connection and a fixed number of FedACH, Fedwire Funds, and Check 21-enabled services.

Six attended access packages offer manual access to critical payment and information services via a web-based interface. The FedLine Exchange package provides access to basic information services via e-mail, while two FedLine Web packages offer an e-mail option plus online attended access to a range of services, including cash services, FedACH information services, and check services. Three FedLine Advantage packages expand upon the FedLine Web packages and offer attended access to critical transactional services: FedACH, Fedwire Funds, and Fedwire Securities.

Three unattended access packages are computer-to-computer, IP-based interfaces. The FedLine Command package offers an unattended connection to FedACH, as well as most accounting information services. The two remaining options are FedLine Direct packages, which allow for unattended connections at one of two connection speeds to FedACH, Fedwire Funds, and Fedwire Securities transactional and information services and to most accounting information services.⁴⁸

For the 2017 FedLine fees, the Reserve Banks will increase five existing monthly fees: (1) the FedLine Web Plus fee from \$140 to \$160, (2) the FedLine Direct Premier fee from

⁴⁸ None of the FedLine packages offer an unattended connection to check services. The Reserve Banks offer an unattended check product, Check 21 Large File Delivery, outside of the FedLine suite that allows a depository institution to upload and download check image cash letters automatically via a direct network connection to the Reserve Banks.

\$6,500 to \$6,700, (3) the FedComplete 200 Plus fee from \$1,300 to \$1,350, (4) the FedComplete 200 Premier fee from \$1,375 to \$1,425, and (5) the FedMail Fax a la carte fee from \$70 to \$100. As in previous years, the Reserve Banks will introduce new fees on legacy services. In particular, the Reserve Banks will implement a legacy software fee to encourage FedLine Direct customers to migrate to an enhanced messaging solution.⁴⁹ To provide customers sufficient time to migrate, the fee will not become effective until the third quarter of 2017. The fee will be introduced on July 1, 2017, at \$5,000 per month and will increase in steps to \$20,000 per month by the end of 2017.⁵⁰ In addition, the Reserve Banks will remove the legacy e-mail service from all FedLine Web, Advantage, Command, and Direct packages and introduce a \$20-per-month fee to purchase an a la carte subscription to this service. Customers in these packages that currently use the e-mail service will have the opportunity to cancel the service to avoid the a la carte fee.

In addition, the Reserve Banks will modify the E-Payments Routing Directory and make several associated changes to FedLine packages and fees.⁵¹ Currently, all FedLine Web, Advantage, Command, and Direct packages include two services to download the directory: manual and automated.⁵² The Reserve Banks will introduce a new automated download service that will allow subscribers to provide access to the directory to their customers

⁴⁹ To avoid the fee, FedLine Direct customers will need to configure their systems to run a supported version of the MQ platform. MQ is a critical messaging component that facilitates the exchange of information between applications, systems, services and files.

⁵⁰ The fee will increase to \$10,000 per month on September 1, 2017, and to \$20,000 per month on November 1, 2017.

⁵¹ E-Payments Routing Directory provides basic routing information for Fedwire Funds, Fedwire Securities, and FedACH transactions.

⁵² The manual service allows subscribers to download the directory in a manual fashion via a web-based interface. The automated service allows subscribers to schedule daily, weekly, or monthly automated (unattended) downloads of the directory.

(that is, non-financial institutions that require access to the directory). Access to the directory will be controlled through the use of download codes, and financial institutions will be responsible for distributing the codes to their respective customers. Additionally, the Reserve Banks will include the automated download service in only plus- and premier-level FedLine packages.⁵³ Five download codes will be included in these packages, and additional codes will be available to purchase through an a la carte option (codes will be available in bundles ranging in price from \$75 to \$2,000 per month).

To accommodate the enhancements to the E-payments Directory, the Reserve Banks will introduce a new FedLine Exchange service, along with a new set of associated packages. Currently, the FedLine Exchange service is an e-mail-based interface, and there is only one package available. The new FedLine Exchange service – which will be a web-based interface (that is, accessible via a web browser rather than e-mail) – will allow customers that do not use FedLine for Federal Reserve Financial Services to access the E-Payments Routing Directory.⁵⁴ The new service will be available in two packages: a base-level and premier-level. The base package, priced at \$40 per month, will include the manual download directory service. The premier package, priced at \$125 month, will include both the manual and automated download directory services.⁵⁵ To ensure continuity of service, the services available in the

⁵³ Plus- and premier-level packages are FedLine Web Plus, FedLine Advantage Plus and Premier, FedLine Command Plus, and FedLine Direct Plus and Premier. In addition the new FedLine Exchange Premier package will have access to the automated service.

⁵⁴ Customers that do not use FedLine to access Federal Reserve Financial Services are generally small financial institutions that partner with a payment processor or other third party for transactional processing.

⁵⁵ FedLine Exchange customers will need to request credentials to access the manual directory download service. These credentials will be billed via a FedMail-FedLine Exchange Subscriber

existing FedLine Exchange package will continue to be available through a new package, FedMail, as discussed below.

The Reserve banks will introduce a new FedMail package, priced at \$85 per month, which will include the same email-based services included in the existing FedLine Exchange package.⁵⁶ Subscribers of the existing FedLine Exchange package will be transitioned to the new FedMail package and experience a fee increase of \$45.⁵⁷

The Reserve Banks estimate that the price changes will result in an 8.1 percent average price increase for FedLine customers.

II. ANALYSIS OF COMPETITIVE EFFECT

All operational and legal changes considered by the Board that have a substantial effect on payment system participants are subject to the competitive impact analysis described in the March 1990 policy “The Federal Reserve in the Payments System.”⁵⁸ Under this policy, the Board assesses whether proposed changes will 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 any proposed changes create such an effect, the Board must further evaluate the changes to assess whether the benefits associated with the

5-pack. The automated download directory service under the FedLine Exchange Premier package includes five download codes so a separate subscriber 5-pack is not required.

⁵⁶ The addition of the FedMail package and the FedLine Exchange Premier package will increase the total number of FedLine packages from nine to eleven.

⁵⁷ The \$45 increase represents the difference in price between the new FedMail package (\$85) and the existing FedLine Exchange package (\$40).

⁵⁸ Federal Reserve Regulatory Service (FRRS) 9-1558.

changes — such as contributions to payment system efficiency, payment system integrity, or other Board objectives — can be achieved while minimizing the adverse effect on competition.

The 2017 fees, fee structures, and 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 should permit the Reserve Banks to earn a ROE that is comparable to overall market returns and provide for full cost recovery over the long run.

III. 2017 FEE SCHEDULES

FEDACH SERVICE 2017 FEE SCHEDULE

EFFECTIVE JANUARY 3, 2017.

BOLD INDICATES CHANGES FROM 2016 PRICES

	Fee
FedACH minimum monthly fee	
Originating Depository Financial Institution (ODFI)⁵⁹	\$50.00
Receiving Depository Financial Institution (RDFI)⁶⁰	\$40.00
Origination (per item or record)	
Forward or return items	\$0.0032
SameDay Service - forward item ⁶¹	\$0.0010 surcharge
Addenda record	\$0.0015
FedLine Web [®] -originated returns and notification of change (NOC) ⁶²	\$0.35

⁵⁹ Any ODFI incurring less than \$50 in forward value and nonvalue item origination fees will be charged a variable amount to reach the minimum monthly origination fee.

⁶⁰ Any RDFI not originating forward value and nonvalue items and incurring less than \$40 in receipt fees will be charged a variable amount to reach the minimum monthly receipt fee. Any RDFI that originates forward value and nonvalue items incurring less than \$50 in forward value and nonvalue item origination fees will only be charged a variable amount to reach the minimum monthly origination fee.

⁶¹ This surcharge is assessed on all forward items that qualify for same-day processing and settlement and is incremental to the standard origination item fee.

⁶² The fee includes the item and addenda fees in addition to the conversion fee.

Facsimile exception returns/NOC ⁶³	\$45.00
Automated NOC	\$0.20
Volume-based discounts (based on monthly billed origination volume) per item when origination volume is:	
750,001 to 1,500,000 items per month	\$0.0005 discount
more than 1,500,000 items per month	\$0.0007 discount
Volume-based discounts (based on monthly billed receipt volume) per item when receipt volume is ⁶⁴ :	
10,000,001 to 15,000,000 items per month	\$0.0002 discount
more than 15,000,000 items per month	\$0.0003 discount
Receipt (per item or record)	
Forward Item.....	\$0.0032
Return Item	\$0.0075
Addenda record.....	\$0.0015
Volume-based discounts	
Non-Premium Receivers—RDFIs receiving less than 90 percent of total network volume through FedACH per item when volume is:	
750,001 to 12,500,000 items per month ⁶⁵	\$0.0014 discount
more than 12,500,000 items per month ⁶⁶	\$0.0016 discount
Premium Receivers, Level One—RDFIs receiving at least 90 percent of FedACH-originated volume through FedACH per item when volume is:	
750,001 to 1,500,000 items per month ⁶⁵	\$0.0014 discount
1,500,001 to 2,500,000 items per month ⁶⁶	\$0.0014 discount
2,500,001 to 12,500,000 items per month ⁶⁶	\$0.0015 discount
more than 12,500,000 items per month ⁶⁶	\$0.0017 discount

⁶³ The fee includes the item and addenda fees in addition to the conversion fee. Reserve Banks also assess a \$30 fee for every government paper return/NOC they process.

⁶⁴ Origination discounts based on monthly volume apply only to those items received by FedACH receiving points and are available only to Premium Receivers (institutions receiving volume above a specified threshold through FedACH).

⁶⁵ This per-item discount is a reduction to the standard receipt fees listed in this fee schedule.

⁶⁶ Receipt volumes at these levels qualify for the waterfall discount, which includes all FedACH receipt items.

Premium Receivers, level two—RDFIs receiving at least 90 percent of ACH volume originated through FedACH or EPN per item when volume is	
750,001 to 1,500,000 items per month ⁶⁵	\$0.0014 discount
1,500,001 to 2,500,000 items per month ⁶⁶	\$0.0014 discount
2,500,001 to 12,500,000 items per month ⁶⁶	\$0.0016 discount
more than 12,500,000 items per month ⁶⁶	\$0.0018 discount

FedACH Bundled Service Discount

Monthly Bundled Service Package Discount ⁶⁷	\$20.00 discount
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Monthly FedACH Risk[®] Management fees ⁶⁸

Risk Origination Monitoring Service/RDFI Alert Service package pricing	
For up to 5 criteria sets	\$35.00
For 6 through 11 criteria sets	\$70.00
For 12 through 23 criteria sets	\$125.00
For 24 through 47 criteria sets	\$150.00
For 48 through 95 criteria sets	\$250.00
For 96 through 191 criteria sets	\$425.00
For 192 through 383 criteria sets	\$675.00
For 384 through 584 criteria sets	\$850.00
For more than 585 criteria sets	\$1,100.00
Risk origination monitoring batch (based on total monthly volume)	
For 1 through 100,000 batches (per batch)	\$0.007
For more than 100,000 batches (per batch)	\$0.0035

Monthly FedPayments Reporter Service

Receiver setup report⁶⁹

FedPayments Reporter Service package pricing includes

Standard reports⁷⁰

⁶⁷ This monthly billing discount is available for any customer that (1) pays the FedACH minimum monthly fee; (2) purchases a FedLine Web Plus or higher package; and (3) subscribes to either FedACH RDFI Alert, FedACH Risk Origination Monitoring, or FedPayments Reporter.

⁶⁸ Criteria may be set for both the origination monitoring service and the RDFI alert service. Subscribers with no criteria set up will be assessed the \$35 monthly package fee.

⁶⁹ The Receiver Setup Report is provided as part of the FedPayments Reporter service and is free of charge to customers that subscribe to FedLine Web Plus, FedLine Advantage Plus, FedLine Advantage Premier, FedLine Command Plus, FedLine Direct Plus, or FedLine Direct Premier. Customers who receive the Receiver Setup Report only are not charged FedPayments Reporter package fees and are instead only charged FedLine access fees (see Attachment VI: FedLine Access Solutions).

⁷⁰ Standard reports include Customer Transaction Activity, Death Notification, International (IAT), Notification of Change, Payment Data Information File, Remittance Advice Detail,

ACH received entries detail – customer and depository financial institution	
ACH volume summary by SEC code report - customer	
On Demand Surcharge ⁷¹	1.00
Report delivery via FedLine file access solution (monthly fee)	
For up to 50 reports	\$40.00
For 51 through 150 reports	\$60.00
For 151 through 500 reports	\$110.00
For 501 through 1,000 reports	\$200.00
For 1,001 through 1,500 reports	\$285.00
For 1,501 through 2,500 reports	\$460.00
For 2,501 through 3,500 reports	\$640.00
For 3,501 through 4,500 reports	\$820.00
For 4,501 through 5,500 reports	\$995.00
For 5,501 through 7,000 reports	\$1,225.00
For 7,001 through 8,500 reports	\$1,440.00
For 8,501 through 10,000 reports	\$1,650.00
For more than 10,000 reports	\$1,800.00
Premier reports (per report generated) ⁷²	
ACH volume summary by SEC code report - depository financial institution	
For 1 through 5 reports	\$10.00
For 6 through 10 reports	\$6.00
For 11 or more reports	\$1.00
On Demand Surcharge	\$1.00
ACH volume summary by SEC code report – customer	
On Demand Surcharge	\$1.00
Monthly ACH routing number activity report	
For 1 through 5 reports	\$10.00
For 6 through 10 reports	\$6.00
For 11 or more reports	\$1.00
On Demand Surcharge	\$1.00
Same Day Originated Batch Report (FedPayments Reporter Subscribers)....	\$10.00
Same Day Originated Batch Report (non-FedPayments Reporter Subscribers).....	\$30.00
On-us inclusion	
Participation (monthly fee per RTN)	\$10.00
Per-item	\$0.0030
Per-addenda.....	\$0.0015

Remittance Advice Summary, Return Item, Return Ratio, Social Security Beneficiary, Originator Setup Reports, and Report Delivery via FedLine Access Solution.

⁷¹ The on demand surcharge applies to standard reports (as defined in the previous footnote), ACH received entries detail reports, and ACH volume summary by SEC code reports.

⁷² Premier reports generated on demand are subject to the package/tiered fees plus a surcharge.

Report delivery via encrypted email (per email)	\$0.20
Other fees	
Monthly fee (per routing number)	
Participation fee ⁷³	\$58.00
SameDay service origination participation fee ⁷⁴	\$10.00 surcharge
FedACH settlement ⁷⁵	\$55.00
FedACH information extract file	\$150.00
IAT Output File Sort.....	\$75.00
Automated NOC participation fee ⁷⁶	\$5.00
Non-electronic input/output fee ⁷⁷	
CD/DVD (CD or DVD)	\$50.00
Paper (file or report).....	\$50.00
Fees established by NACHA ⁷⁸	
NACHA Same Day Entry fee (per item)	\$0.052
NACHA Same Day Entry credit (per item).....	\$0.052 (credit)
NACHA Unauthorized Entry fee (per item).....	\$4.50
NACHA Unauthorized Entry credit (per item).....	\$4.50 (credit)
NACHA Admin Network fee (monthly fee per RTN)	\$18.00
NACHA Admin Network fee (per entry)	\$0.000162

FedGlobal ACH Payments⁷⁹
Fixed Monthly Fee⁸⁰

⁷³ The Participation fee applies to routing numbers that have received or originated FedACH transactions. Institutions that receive only U.S. government transactions through the Reserve Banks or that elect to use a private-sector operator exclusively are not assessed this fee.

⁷⁴ This surcharge is assessed to any routing number that originates at least one item meeting the criteria for same-day processing and settlement in a given month and is incremental to the standard Participation fee.

⁷⁵ The FedACH settlement fee is applied to any routing number with activity during a month, including routing numbers of institutions that elect to use a private-sector operator exclusively but also have items routed to or from customers that access the ACH network through FedACH. This fee does not apply to routing numbers that use the Reserve Banks for only U.S. government transactions.

⁷⁶ The notification-of-change fee will be assessed only when automated NOCs are generated.

⁷⁷ Limited services are offered in contingency situations.

⁷⁸ The fees listed are collected from the ODFI and credited to NACHA (admin network fees) or to the RDFI (same-day entry fee and unauthorized entry fee) in accordance with the ACH Rules.

⁷⁹ The international fees and surcharges vary from country to country because these are negotiated with each international gateway operator.

⁸⁰ The fixed monthly fee is a single monthly fee based on total FedGlobal ACH Payments origination volume.

Monthly origination volume more than 500 items.....	\$185.00
Monthly origination volume between 161 and 500 items.....	\$60.00
Monthly origination volume less than 161 items.....	\$20.00

Per-item Origination Fee for Monthly Volume more than 500 Items (surcharge)⁸¹

Canada service	\$0.50
Mexico service	\$0.55
Panama service.....	\$0.60
Europe service	\$1.13

Per-item Origination Fee for Monthly Volume between 161 and 500 items

(surcharge)⁸¹

Canada service	\$0.75
Mexico service	\$0.80
Panama service.....	\$0.85
Europe service	\$1.38

Per-item Origination Fee for Monthly Volume Less than 160 items (surcharge)⁸¹

Canada service	\$1.00
Mexico service	\$1.05
Panama service.....	\$1.10
Europe service	\$1.63

Other FedGlobal ACH Payments Fees

Canada service

Return received from Canada ⁸²	\$0.99
Item trace at receiving gateway	\$5.50
Item trace not at receiving gateway	\$7.00

Mexico service fee

Return received from Mexico ⁸²	\$0.91
Foreign currency to foreign currency (F3X) item originated to Mexico ⁸¹ ..	\$0.67
Item trace	\$13.50

Panama service fee

Return received from Panama ⁸²	\$1.00
NOC	\$0.72
Item trace	\$7.00

Europe service fee

F3X item originated to Europe ⁸¹	\$1.25
Return received from Europe ⁸²	\$1.35
Item trace	\$7.00

⁸¹ This per-item surcharge is in addition to the standard domestic origination fees.

⁸² This per-item surcharge is in addition to the standard domestic receipt fees.

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FEDWIRE FUNDS AND NATIONAL SETTLEMENT SERVICES 2017 FEE SCHEDULE

EFFECTIVE JANUARY 3, 2017.
BOLD INDICATES CHANGES FROM 2016 PRICES.

Fedwire Funds Service

	Fee
Monthly Participation Fee.....	\$95.00
Basic volume-based preincentive transfer fee (originations and receipts) – per transfer for:	
the first 14,000 transfers per month.....	\$0.820
additional transfers up to 90,000 per month	\$0.245
every transfer over 90,000 per month	\$0.170
Volume-based transfer fee with the incentive discount (originations and receipts) – per eligible transfer for: ⁸³	
the first 14,000 transfers per month	\$0.164
additional transfers up to 90,000 per month	\$0.049
every transfer over 90,000 per month	\$0.034
Surcharge for Off-line Transfers (Originations and Receipts).....	\$60.00
Surcharge for End-of-Day Transfer Originations ⁸⁴	\$0.26
Monthly FedPayments Manager import/export fee ⁸⁵	\$50.00
Surcharge for high-value payments:	
> \$10 million.....	\$0.14

⁸³ The incentive discounts apply to the volume that exceeds 60 percent of a customer’s historic benchmark volume. Historic benchmark volume is based on a customer’s average daily activity over the previous five calendar years. If a customer has fewer than five full calendar years of previous activity, its historic benchmark volume is based on its daily activity for as many full calendar years of data as are available. If a customer has less than one year of past activity, then the customer qualifies automatically for incentive discounts for the year. The applicable incentive discounts are as follows:

\$0.656 for transfers up to 14,000; \$0.196 for transfers 14,001 to 90,000; and \$0.136 for transfers over 90,000.

⁸⁴ This surcharge applies to originators of transfers that are processed by the Reserve Banks after 5:00 p.m. eastern time.

⁸⁵ This fee is charged to any Fedwire Funds participant that originates a transfer message via the FedPayments Manager (FPM) Funds tool and has the import/export processing option setting active at any point during the month.

> \$100 million.....	\$0.36
Surcharge for Payment Notification:	
Origination Surcharge ⁸⁶	\$0.20

National Settlement Service

Basic	
Settlement Entry Fee.....	\$1.50
Settlement File Fee	\$30.00
Surcharge for Off-line File Origination ⁸⁷	\$45.00
Minimum Monthly Fee (account maintenance) ⁸⁸	\$60.00
Special Settlement Arrangements (fee per day) ⁸⁹	\$150.00

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⁸⁶ Payment Notification and End-of-Day Origination surcharges apply to each Fedwire funds transfer message.

⁸⁷ Offline files will be accepted only on an exception basis when a settlement agent's primary and backup means of transmitting settlement files are both unavailable.

⁸⁸ Any customer account with total settlement charges less than \$60 during a calendar month will be assessed a variable amount to reach the minimum monthly account maintenance fee.

⁸⁹ 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 2017 FEE SCHEDULE
(NON-TREASURY SECURITIES)**

EFFECTIVE JANUARY 3, 2017.
BOLD INDICATES CHANGES FROM 2016 PRICES.

	Fee
Basic Transfer Fee	
Transfer or reversal originated or received	\$0.77
Surcharge	
Offline origination & receipt surcharge	\$80.00
Monthly Maintenance Fees	
Account maintenance (per account).....	\$57.50
Issues maintained (per issue/per account)	\$0.77
Claim Adjustment Fee.....	\$0.80
GNMA Serial Note Stripping or Reconstitution Fee ⁹⁰	\$9.00
Joint Custody Origination Surcharge⁹¹	\$46.00
Delivery of Reports – Hard Copy Reports to On-Line Customers	\$50.00

⁹⁰ This service was formerly called the GNMA Serial Note CUSIP Fee.

⁹¹ Fedwire Securities Service charges customers the Joint Custody Origination Surcharge for both Agency and Treasury securities.

FEDLINE 2017 FEE SCHEDULE

EFFECTIVE JANUARY 3, 2017.
BOLD INDICATES CHANGES FROM 2016 PRICES.

	Fee
<u>FedComplete Packages (monthly)</u> ⁹²	
FedComplete 100 Plus	\$775.00
includes FedLine Advantage Plus package	
FedLine subscriber 5-pack	
FedMail-FedLine Exchange subscriber 5-pack ⁹³	
7,500 FedForward transactions	
70 FedReturn transactions	
14,000 FedReceipt [®] transactions	
35 Fedwire funds origination transfers	
35 Fedwire funds receipt transfers	
Fedwire participation fee	
1,000 FedACH origination items	
FedACH minimum fee	
7,500 FedACH receipt items	
FedACH receipt minimum fee	
10 FedACH web return/NOC	
500 FedACH addenda originated	
1,000 FedACH addenda received	
FedACH account servicing	
FedACH settlement	
FedComplete 100 Premier	\$850.00
includes FedLine Advantage Premier package	
Volumes included in the FedComplete 100 Plus package	

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⁹² FedComplete packages are all-electronic service options that bundle payment services with an access solution for one monthly fee.

⁹³ FedComplete customers that use the email service will be charged the FedMail Email a la carte fee.

FedComplete 200 Plus\$1,350.00

- includes FedLine Advantage Plus package
- FedLine subscriber 5-pack
- FedMail-FedLine Exchange subscriber 5-pack⁹⁴
- 25,000 FedForward transactions
- 225 FedReturn transactions
- 25,000 FedReceipt transactions
- 100 Fedwire funds origination transfers
- 100 Fedwire funds receipt transfers
- Fedwire participation fee
- 2,000 FedACH origination items
- FedACH minimum fee
- 25,000 FedACH receipt items
- FedACH receipt minimum fee
- 20 FedACH web return/NOC
- 750 FedACH addenda originated
- 1,500 FedACH addenda received
- FedACH account servicing
- FedACH settlement

FedComplete 200 Premier\$1,425.00

- includes FedLine Advantage Premier package
- Volumes included in the FedComplete 200 Plus package

FedComplete Excess Volume Surcharge⁹⁵

- FedForward \$0.01/item
- FedReturn \$0.7500/item
- Fedwire Funds Origination..... \$0.7000/item
- FedACH Origination \$0.0025/item

FedComplete package credit incentive⁹⁶ (\$1,500.00)

FedComplete credit adjustment various

FedComplete debit adjustment various

*FedLine Customer Access Solutions (monthly)*⁹⁷

FedMail⁹⁸\$85.00

- includes **FedMail access channel**

FedACH Advice and Settlement Information
Fedwire Funds Offline Advices
Check 21 Services
Check 21 Duplicate Notification Service
Check Adjustments
Accounting Statements
Daylight Overdraft Reports
Billing Statements

⁹⁴ FedComplete customers that use the email service will be charged the FedMail Email a la carte fee.

⁹⁵ Per-item surcharges are in addition to the standard fees listed in the applicable priced services fee schedules.

⁹⁶ New FedComplete package customers with a new FedLine Advantage connection are eligible for a one-time \$1,500 credit applied to their Federal Reserve service charges. Customers receiving credit must continue using the FedComplete package for a minimum of six months or forfeit the \$1,500 credit.

⁹⁷ VPN hardware for FedLine Advantage and FedLine Command is billed directly by the vendor. A current list of fees can be found at http://www.frbservices.org/files/servicefees/pdf/access/vendor_fees.pdf.

⁹⁸ FedMail and FedLine Exchange packages do not include user credentials, which are required to access priced services and certain informational services. Credentials are sold separately in packs of five via the FedMail-FedLine Exchange Subscriber 5-pack.

FedLine Exchange⁹⁸\$40.00

includes **E-Payments Routing Directory (manual download)**

FedLine Exchange Premier⁹⁸\$125.00

includes **FedLine Exchange package**
E-Payments Routing Directory (auto download)

FedLine Web⁹⁹\$110.00

includes FedLine Web access channel
Services included in the FedLine Exchange package
Check FedForward, FedReturn and FedReceipt services
Check Adjustments
FedACH Information Services & Derived Returns/NOCs
FedACH Risk Services (includes RDFI Alert and Returns Reporting)
FedCash Services
Service Charge Information

FedLine Web Plus⁹⁹\$160.00

includes FedLine Web package
FedACH Risk Origination Monitoring Service
FedACH FedPayments Reporter Service
Check Large Dollar Return
Check FedImage Services
Account Management Information
Various accounting and inquiry services (ABMS inquiry, IAS/PSR inquiry, IAS detailed inquiries, notifications and advices, end-of-day accounting file (PDF))
E-Payments Routing Directory (auto download)

FedLine Advantage⁹⁹\$380.00

⁹⁹ FedLine Web and Advantage packages do not include user credentials, which are required to access priced services and certain informational services. Credentials are sold separately in packs of five via the FedLine Subscriber 5-pack.

includes: FedLine Advantage access channel
 Services included in the FedLine Web package
 FedACH transactions
 Fedwire Funds transactions
 Fedwire Securities transactions
 National Settlement Service transactions
 Check Large Dollar Return
 Check FedImage Services
 Account Management Information with Intra-Day Download Search File
 Various accounting and inquiry services (ABMS inquiry, IAS/PSR inquiry, IAS
 detailed inquiries, notifications and advices, end-of-day accounting file (PDF))

FedLine Advantage Plus⁹⁹\$425.00

includes FedLine Advantage package
 FedACH Risk Origination Monitoring Service
 FedACH FedPayments Reporter Service
 Fedwire Funds FedPayments Manager Import/Export (less than 250 Fedwire
 transactions and one routing number per month)
 FedTransaction Analyzer[®] (less than 250 Fedwire transactions and one routing number
 per month)
E-Payments Routing Directory (auto download)

FedLine Advantage Premier⁹⁹\$500.00

includes FedLine Advantage Plus package
 Secondary VPN device
 Fedwire Funds FedPayments Manager Import/Export (more than 250 Fedwire
 transactions or more than one routing number in a given month)
 FedTransaction Analyzer (more than 250 Fedwire transactions or more than one
 routing number per month)

FedLine Command Plus\$1,000.00

includes FedLine Command access channel
 Services included in the FedLine Advantage Plus package
 Two FedLine Command server certificates
 Fedwire Statement Services

Fedwire Funds FedPayments Manager Import/Export (more than 250 Fedwire transactions or more than one routing number in a given month)
 FedTransaction Analyzer (more than 250 Fedwire transactions or more than one routing number per month)
 Intra-Day File (I-Day CI File)
 Statement of Account Spreadsheet File (SASF)
 Financial Institution Reconciliation Data File (FIRD)
 Billing Data Format File (BDFP)

FedLine Direct Plus\$3,600.00
 includes FedLine Direct access channel
 256K Dedicated WAN Connection
 Services included in the FedLine Command Plus package
 Two FedLine Direct server certificates
 Treasury Check Information System (TCIS)

FedLine Direct Premier**\$6,700.00**
 includes FedLine Direct Plus package
 T1 dedicated WAN connection
 Secondary VPN device
 Cash Management Services Plus Own Report (No Respondent/Subaccount activity)

A la carte options (monthly)¹⁰⁰

Electronic Access

FedMail - FedLine Exchange Subscriber 5-pack\$15.00
 FedLine Subscriber 5-pack (access to Web and Advantage)\$80.00
 Additional FedLine Command Certificate¹⁰¹\$100.00
 Additional FedLine Direct Certificate¹⁰²\$100.00
 Additional VPNs - Maintenance Fee¹⁰³\$60.00

¹⁰⁰ These add-on services can be purchased only with a FedLine Customer Access Service option.

¹⁰¹ Additional FedLine Command Certificates available for FedLine Command and Direct packages only.

¹⁰² Additional FedLine Direct Certificates available for FedLine Direct packages only.

¹⁰³ Additional VPNs are available for FedLine Advantage, FedLine Command, and FedLine Direct packages only.

Additional dedicated connections	
256K	\$2,500.00
T1	\$3,200.00
FedLine International Setup (one-time fee).....	\$5,000.00
FedLine Custom Implementation Fee ¹⁰⁴	various
FedLine Direct Contingency Solution	\$1,000.00
Check 21 Large File Delivery ¹⁰⁵	various
FedMail Email (for FedLine customers)	\$20.00
FedMail Fax	\$100.00
VPN Device Modification	\$200.00
VPN Device Missed Activation Appointment.....	\$175.00
VPN Device Expedited Hardware Surcharge.....	\$100.00
VPN Device Replacement or Move.....	\$300.00
E-Payments Automated Download (1-5 Add'l Codes)	\$75
E-Payments Automated Download (6-20 Add'l Codes)	\$150
E-Payments Automated Download (21-50 Add'l Codes)	\$300
E-Payments Automated Download (51-100 Add'l Codes)	\$500
E-Payments Automated Download (101-250 Add'l Codes)	\$1,000
E-Payments Automated Download (>250 Add'l Codes)	\$2,000

Electronic Access Training

Learning Center	complimentary
Certificate Retrieval Download Tutorial	complimentary

Accounting Information Services

Cash Management System (CMS) Plus – Own report – up to six files with: ¹⁰⁶	
no respondent/sub-account activity.....	\$60.00
less than 10 respondent and/or sub-accounts	\$125.00
10-50 respondent and/or sub-accounts.....	\$250.00
51-100 respondents and/or sub-accounts	\$500.00
101-500 respondents and/or sub-accounts	\$750.00

¹⁰⁴ The FedLine Custom Implementation Fee is \$2,500 or \$5,000 based on the complexity of the setup.

¹⁰⁵ The fee ranges from \$1,400 to \$20,725 depending on the size, speed, and location of the connection.

¹⁰⁶ Cash Management Service options are limited to plus and premier packages.

>500 respondents and/or sub-accounts	\$1,000.00
End-of-Day Financial Institution Reconciliation Data File ¹⁰⁷	\$150.00
Statement of Account Spreadsheet File ¹⁰⁸	\$150.00
Intra-day Download Search File (with AMI) ¹⁰⁹	\$150.00
ACTS Report ¹¹⁰	
<= 20 sub-accounts	\$500.00
21-40 sub-accounts	\$1,000.00
41-60 sub-accounts	\$1,500.00
>60 sub-accounts	\$2,000.00
Other	
Software Certification	\$0.00 to \$8,000.00
Vendor Pass-Through Fee	various
Electronic Access Credit Adjustment	various
Electronic Access Debit Adjustment	various
Legacy Connection Service Fee	\$20,000.00
Legacy Software Fee (effective July 1, 2017)	\$5,000.00
(effective September 1, 2017)	\$10,000.00
(effective November 1, 2017)	\$20,000.00

-END-

By order of the Board of Governors of the Federal Reserve System, October 25, 2016.

Robert deV. Frierson (signed)

Robert deV. Frierson,
Secretary of the Board.

¹⁰⁷ The End of Day Reconciliation File option is available for FedLine Web Plus, FedLine Advantage Plus, and Premier packages. It is available for no extra fee in FedLine Command Plus and Direct packages.

¹⁰⁸ The Statement of Account Spreadsheet File option is available for FedLine Web Plus, FedLine Advantage Plus, and Premier packages. It is available for no extra fee in FedLine Command Plus and Direct packages.

¹⁰⁹ The Intra-day Download Search File option is available for the FedLine Web Plus package. It is available for no extra fee in FedLine Advantage and higher packages.

¹¹⁰ ACT Report options are limited to FedLine Command Plus, FedLine Direct Plus, and Premier packages.