

FEDERAL RESERVE SYSTEM
[Docket No. OP-1730]

Federal Reserve Bank Services: Notification of the 2021 Private Sector Adjustment Factor and 2021 Fee schedules of Federal Reserve Priced Services and Electronic Access.

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Notification of 2021 private sector adjustment factor and fee schedules.

SUMMARY: The Board of Governors of the Federal Reserve System (Board) has approved the private sector adjustment factor (PSAF) for 2021 of \$16.4 million and the 2021 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.

DATE: The new fee schedules become effective January 4, 2021.

FOR FURTHER INFORMATION CONTACT: For questions regarding the fee schedules: David C. Mills, Associate Director, (202) 530-6265; Jason Kim, Financial Institution Policy Analyst, (202) 475-6665; Dean Friedberg, Financial Institution Policy Analyst, (202) 425-3525; Division of Reserve Bank Operations and Payment Systems. For questions regarding the PSAF: Casey Clark, Assistant Director, (202) 912-7978; Grace Milbank, Lead Financial Institution Policy Analyst, (202) 263-4828, 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 2020 fee schedules for the check service are available from the Board, the Federal Reserve Banks, or the Reserve Banks' financial services web site at www.frb services.org.

I. Supplementary Information:

Private Sector Adjustment Factor, Priced Services Cost Recovery, and Overview of 2021 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.¹ 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 will have been earned if a private business firm provided the services. The imputed costs and imputed profit are collectively referred to as the private-sector adjustment factor (PSAF). From 2010 through 2019, the Reserve Banks recovered 103.9 percent of their total expenses (including imputed costs) and targeted after-tax profits or return on equity (ROE) for providing priced services.²

The Board on July 21, 2020, announced its intent to maintain the current schedule of prices for most payment services that the Federal Reserve Banks provide to depository institutions (priced services) in 2021, in light of the uncertainties created by the COVID-19 pandemic and to support the business planning of users and providers of payment services.³ Table 1 summarizes 2019 actual, 2020 estimated, and 2021 budgeted cost recovery rates for all priced services. Cost recovery is estimated to be 101.4 percent in 2020 and budgeted to be 98.7 percent in 2021.

¹ On August 5, 2019, the Federal Reserve Board announced that the Reserve Banks will develop the FedNowSM Service, an interbank real-time gross settlement (RTGS) service with integrated clearing functionality, to support the provision of end-to-end faster payment services. The Board anticipates the FedNow Service will be available in 2023 or 2024. Following the introduction of the FedNow Service, the Board will regularly disclose the service's cost recovery and will monitor progress toward matching revenues and costs.

² 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*. In accordance with Accounting Standards Codification (ASC) 715 *Compensation – Retirement Benefits*, the Reserve Banks recognized a cumulative reduction in equity related to the priced services' benefit plans. Including this cumulative reduction in equity from 2010 to 2019 results in cost recovery of 100.7 percent for the 10-year period. This measure of long-run cost recovery is also published in the Board's *Annual Report*.

³ See <https://www.federalreserve.gov/newsevents/pressreleases/other20200721a.htm>.

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,f} RECOVERY RATE AFTER TARGETED ROE [1/(2+4)]
2019 (actual)	\$444.1	\$441.2	\$2.9	\$5.4	99.4%
2020 (estimate)	445.5	433.4	12.1	5.9	101.4%
2021 (budget)	438.4	439.9	-1.5	4.4	98.7%

a Calculations in this table and subsequent pro forma cost and revenue tables may be affected by rounding. Excludes amounts related to the development of the FedNow Service.

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 (attachment 1). For 2020, the projected revenue assumes implementation of the fee changes.

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 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 ASC 715. Future gains or losses, and their effect on cost recovery, cannot be projected.

f For 2019 and 2020, credits or debits related to the accounting for pension plans under ASC 715 include service cost only with the adoption of ASU 2017-07 *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* (Topic 715).

Table 2 provides an overview of cost-recovery budgets, estimates, and performance for the 10-year period from 2010 to 2019, 2019 actual, 2020 budget, 2020 estimate, and 2021 budget by priced service.

Table 2

Priced Services Cost Recovery (percent)					
PRICED SERVICE	2010-2019	2019 ACTUAL	2020 BUDGET ^A	2020 ESTIMATE	2021 BUDGET ^B
All services	103.9	99.4	101.7	101.4	98.7
Check	109.0	104.0	104.3	102.4	97.7
FedACH	98.6	97.6	100.6	97.6	97.4
Fedwire Funds and NSS	102.2	97.3	100.6	105.1	100.5
Fedwire Securities	102.5	100.3	102.8	101.9	100.9

A The 2020 budget figures reflect the final budgets as approved by the Board in December 2019.

B The 2021 budget figures reflect preliminary budget information from the Reserve Banks. The Reserve Banks will submit final budget data to the Board in November 2020, for Board consideration in December 2020.

1. *2020 Estimated Performance* — The Reserve Banks estimate that they will recover 101.4 percent of the costs of providing priced services in 2020, including total expense and targeted ROE, compared with a 2020 budgeted recovery rate of 101.7 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 \$12.1 million, compared with the targeted ROE of \$5.9 million. The Reserve Banks estimate that the Check Services, the Fedwire[®] Funds and National Settlement Services, and the Fedwire Securities Service will achieve full cost recovery; however, the Reserve Banks estimate that the FedACH[®] Service will not achieve full cost recovery in 2020. Consistent with recent years, the FedACH Service will not achieve full cost recovery because of investment costs associated with the multiyear technology initiative to modernize its processing platform.⁴ This investment is expected to enhance efficiency, the overall quality of operations, and the Reserve Banks' ability to offer additional services to depository institutions.

2. *2021 Private-Sector Adjustment Factor* — The 2021 PSAF for Reserve Bank priced services is \$16.4 million. This amount represents a decrease of \$2.5 million from the 2020 PSAF of \$18.9 million. This decrease is primarily the result of a decrease in imputed return on equity and sales tax.

3. *2021 Projected Performance* — The Reserve Banks project a priced services cost recovery rate of 98.7 percent in 2021, with a net loss of \$1.5 million and targeted ROE of \$4.4 million. The Reserve Banks project that the price changes will result in a 2.7 percent average price increase for Check Services customers. The Reserve Banks project that each of the individual service lines, other than Check Services and

⁴ The Reserve Banks have been engaged in a multiyear technology initiative to modernize the FedACH processing platform capabilities.

FedACH, will fully recover their costs for 2021. The Check Services' underrecovery projections are largely driven by an anticipated decline in check volumes. FedACH is projected to underrecover because of the ongoing technology modernization project. The Fedwire Funds Service and Fedwire Securities Service are projected to recover more than 100 percent of costs in 2021. Check Services is projected to fully recover costs in the long run.⁵ Although FedACH is not budgeted to fully recover its costs in 2021, the Reserve Banks expect to fully recover costs in the long run once the modernization project is complete.

The primary risks to the Reserve Banks' ability to achieve their targeted cost recovery rates are unanticipated volume and revenue reductions—which may be more likely than in other years because of the COVID-19 pandemic—and the potential for cost overruns from new and ongoing improvement initiatives such as the technology modernization for FedACH. In light of these risks, the Reserve Banks will continue to monitor the impacts of the pandemic and refine their business and operational strategies, which may include managing costs and adjusting prices as appropriate.

4. *2021 Pricing* — With the exception of an increase to the fixed monthly Check 21 participation fee, the Reserve Banks will keep prices at existing levels for all existing priced services fees in 2021. The following summarizes the Reserve Banks' changes in fee schedules for priced services in 2021:

Check

- The Reserve Banks will increase the fixed monthly Check 21 participation fee per parent customer from a fixed \$25 to a new tiered pricing structure with fees ranging from \$40 to \$135.

⁵ From 2012-2021, Check Service's projected 10-year average recovery rate is 108.6 percent.

FedACH

- The Reserve Banks will keep prices at existing levels for all existing priced FedACH products.

Fedwire Funds

- The Reserve Banks will keep prices at existing levels for all existing priced Fedwire Funds products.

National Settlement Service (NSS)

- The Reserve Banks will keep prices at existing levels for all existing priced NSS products.

Fedwire Securities

- The Reserve Banks will keep prices at existing levels for all the existing priced Fedwire Securities products.

FedLine[®] Solutions

- The Reserve Banks will keep prices at existing levels for all the existing priced FedLine Solutions products.

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’

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 information for the entirety of the U.S. market.

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 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

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*.

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 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 Funds Service. The Board's PSR policy incorporates the international standards for financial market infrastructures (FMIs) developed by the Committee on

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.

Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions in the *Principles for Financial Market Infrastructures*. The policy requires that the Fedwire Funds Service 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 Funds Service does 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 an amount equivalent to 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. Using the Fedwire Funds Service's preliminary 2021 budget, six months of current operating expenses would be \$47.5 million. In 2021, \$26.6 million of equity was imputed to meet the FDIC capital requirements. No additional 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

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.

mean of the weighted average rates of the U.S. publicly traded firm market over the past five 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 equity financing rate is described above. 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 2021 PSAF is \$16.4 million, compared with \$18.9 million in 2020. The decrease of \$2.5 million is attributable to a net \$2.0 million decrease in the cost of capital and a \$0.5 million decrease in sales tax. The net \$2.0 million decrease in cost of capital resulted from an incremental \$1.0 million decrease in the return on equity imputed to satisfy the FDIC requirements for a well-capitalized institution and a \$1.0 million decrease in return on imputed equity necessary for PSR policy compliance.

The PSAF expense of \$16.4 million, detailed in table 5, reflects \$6.6 million for BOG expense, \$5.9 million for capital funding, and \$3.9 million in sales tax expense.

As shown in table 3, 2021 total assets of \$790.6 million decreased by \$50.6 million from 2020. The net decrease in total assets reflects an \$88.8 million decrease in short-term assets and imputed investments partially offset by a \$38.2 million increase in long-term assets.

The decrease in the short-term assets is primarily driven by a \$67.0 million decrease in items in process of collection resulting from a reduction in high balances in the value of foreign transactions. The remaining net decreases in short-term assets reflect a \$38.2 million decrease in the imputed investments in Treasury securities from imputed equity required to meet FDIC capital requirements for a well-capitalized institution and to comply with the PSR policy, partially offset by a \$16.5 million increase in imputed investments in Fed Funds.

The net long-term asset increase of \$38.2 million primarily consists of a \$66.8 million increase in the net pension asset partially offset by a combined \$23.6 million decrease in Premises and in Leasehold improvements and long-term prepayments. The net pension asset increase reflects higher plan contributions over the past two years. The decreases in Premises and in Leasehold improvements and long-term prepayments are mainly due to a lower allocation of Reserve Bank assets to the Federal Reserve's priced services.

The capital structure of the 2021 pro forma balance sheet, provided in table 4, is composed of equity of \$51.8 million, or 10.0 percent of the 2021 risk-weighted assets detailed in table 6, and \$9.1 million of long-term debt. The 2021 capital structure differs from that of 2020, which was composed of \$56.0 million of equity and no long-term debt. Provided in table 5, the 2021 initially imputed equity required to fund assets and meet the publicly traded firm model capital requirements is \$25.2 million. Long-term debt of \$35.7 million was imputed at the observed market ratio of 58.7 percent. To meet the FDIC capital requirements for a well-capitalized institution, \$26.6 million of imputed long-term debt was substituted for equity, and no additional equity was imputed. The

resulting \$51.8 million total level of equity was sufficient to satisfy the \$47.5 million equity requirement for the PSR policy requirements.

The net Accumulated Other Comprehensive loss is \$628.2 million, compared with \$625.2 million in 2020. The slight decrease is primarily attributable to a lower priced percentage and lower tax rate partially offset by a lower discount rate. AOCI is in a net loss position and does not reduce the total imputed equity required to fund priced services assets or fulfill the FDIC equity requirements for a well-capitalized institution.

Table 3

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

	<u>2021</u>	<u>2020</u>	<u>Change</u>
Short-term assets			
Receivables	\$ 37.1	\$ 37.1	\$ -
Materials and supplies	0.4	0.5	(0.1)
Prepaid expenses	10.8	10.8	-
Items in process of collection ¹⁰	62.1	129.1	(67.0)
Total short-term assets	<u>110.4</u>	<u>177.5</u>	<u>(67.1)</u>
Imputed investments¹¹			
Imputed investment in Treasury Securities	\$ 0.0	\$ 38.2	\$ (38.2)
Imputed investment in Fed Funds	242.0	225.5	16.5
Total imputed investments	<u>242.0</u>	<u>263.7</u>	<u>(21.7)</u>
Long-term assets			
Premises ¹²	\$ 94.6	\$ 111.5	\$ (16.9)
Furniture and equipment	31.5	30.2	1.3
Leasehold improvements and long-term prepayments	74.4	81.1	(6.7)
Net pension asset	66.8	0.0	66.8
Deferred tax asset	170.9	177.2	(6.3)
Total long-term assets	<u>438.2</u>	<u>400.0</u>	<u>38.2</u>
Total assets	<u>\$ 790.6</u>	<u>\$ 841.2</u>	<u>\$ (50.6)</u>
Short-term liabilities			
Deferred credit items	\$ 304.1	\$ 354.6	\$ (50.5)
Short-term debt	8.1	13.0	(4.9)
Short-term payables	40.2	35.5	4.7
Total short-term liabilities	<u>352.4</u>	<u>403.1</u>	<u>(50.7)</u>
Long-term liabilities			
Pension liability	\$ 0.0	\$ 0.1	\$ (0.1)
Long-term debt	9.1	-	9.1
Postemployment/postretirement benefits and net pension liabilities ¹³	377.3	382.0	(4.7)
Total liabilities	<u>\$ 738.8</u>	<u>\$ 785.2</u>	<u>\$ (46.4)</u>

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 before 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 and amount equivalent to 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 \$47.5 million. In 2021, 26.7 million of equity was imputed to meet the regulatory capital requirements.

¹² Includes the allocation of Board of Governors assets to priced services of \$2.4 million for 2021 and \$3.1 million for 2020.

¹³ Includes the allocation of Board of Governors liabilities to priced services of \$1.0 million for 2021 and \$0.8 million for 2020.

Equity ¹⁴	\$ 51.8	\$ 56.0	\$ (4.2)
Total liabilities and equity	<u>\$ 790.6</u>	<u>\$ 841.2</u>	<u>\$ (50.6)</u>

^a Calculations in this table and subsequent PSAF tables may be affected by rounding.

¹⁴ Includes an accumulated other comprehensive loss of \$628.2 million for 2021 and \$625.2 million for 2020, which reflects the ongoing amortization of the accumulated loss in accordance with 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.

Table 4
Imputed Funding for Priced-Services Assets
(millions of dollars)

	2021	2020
A. Short-term asset financing		
Short-term assets to be financed		
Receivables	\$ 37.1	\$ 37.1
Materials and supplies	0.4	0.5
Prepaid expenses	10.8	10.8
Total short-term assets to be financed	<u>\$ 48.4</u>	<u>\$ 48.4</u>
Short-term payables	40.2	35.5
Net short-term assets to be financed	<u>\$ 8.1</u>	<u>\$ 13.0</u>
Imputed short-term debt financing ¹⁵	\$ 8.1	\$ 13.0
B. Long-term asset financing		
Long-term assets to be financed		
Premises	\$ 94.6	\$ 111.5
Furniture and equipment	31.5	30.2
Leasehold improvements and long-term prepayments	74.4	81.1
Net pension asset	66.8	-
Deferred tax asset	170.9	177.2
Total long-term assets to be financed	<u>\$ 438.2</u>	<u>\$ 400.0</u>
Postemployment/postretirement benefits and net pension liabilities	377.3	382.0
Net long-term assets to be financed	<u>\$ 60.9</u>	<u>\$ 17.8</u>
Imputed long-term debt ¹⁰	\$ 9.1	\$ -
Imputed equity ¹⁰	51.8	56.0
Total long-term financing	<u>\$ 60.9</u>	<u>\$ 56.0</u>

¹⁵ Imputed short-term debt financing is computed as the difference between short-term assets and short-term liabilities. As presented in table 5, the financing costs of imputed short-term debt, imputed long-term debt and imputed equity are the elements of cost of capital, which contribute to the calculation of the PSAF.

Table 5
Derivation of the 2021 and 2020 PSAF
(dollars in millions)

	2021		2020	
	Debt	Equity	Debt	Equity
A. Imputed long-term debt and equity				
Net long-term assets to finance	\$ 60.9	\$ 60.9	\$ 17.8	\$ 17.8
Capital structure observed in market	58.7%	41.3%	58.4%	41.6%
Pre-adjusted long-term debt and equity	\$ 35.7	\$ 25.2	\$ 10.4	\$ 7.4
Equity adjustments ¹⁶ :				
Equity to meet capital requirements	-	51.8	-	49.0
Adjustment to debt and equity funding given capital requirements ¹⁷	(26.6)	26.6	(10.4)	10.4
Adjusted equity balance	-	51.8	-	17.8
Equity to meet capital requirements ¹⁸	-	-	-	31.2
Total imputed long-term debt and equity	\$ 9.1	\$ 51.8	\$ -	\$ 49.0
B. Cost of capital				
Elements of capital costs				
Short-term debt ¹⁹	\$ 8.1 x	0.2% = \$ 0.0	\$ 13.0 x	2.3% = \$ 0.3
Long-term debt ¹⁹	9.1 x	3.8% = 0.3	- x	4.0% = -
Equity ²⁰	51.8 x	10.7% = 5.6	49.0 x	13.3% = 6.6
		\$ 5.9		\$ 6.9
C. Incremental cost of PSR policy				
Equity to meet policy	\$ - x	10.7% = \$ -	\$ 7.1 x	13.5% = \$ 1.0
D. Other required PSAF costs				
Sales taxes		\$ 3.9		\$ 4.4
Board of Governors expenses		6.6		6.7
		10.5		11.1
		\$ 16.4		\$ 18.9
E. Total PSAF				
As a percent of assets		2.1%		2.2%
As a percent of expenses		4.1%		3.4%
F. Tax rates		20.8%		22.1%

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 2021, the amount of imputed equity met 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.

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 2021 ROE is equal to a risk-free rate plus a risk premium (beta * market risk premium). The 2021 after-tax CAPM ROE is calculated as 0.13% + (1.0 * 8.36%) = 8.50%. Using a tax rate of 20.8%, the after-tax ROE is converted into a pretax ROE, which results in a pretax ROE of (8.50% / (1-20.8%)) = 10.72%. Calculations may be affected by rounding.

Table 6
 Computation of 2020 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	\$ -	-	\$ -
Federal funds ²²	242.0	0.2	48.4
Total imputed investments	<u>242.0</u>		<u>48.4</u>
Receivables	\$ 37.1	0.2	\$ 7.4
Materials and supplies	0.5	1.0	0.5
Prepaid expenses	10.8	1.0	10.8
Items in process of collection	62.1	0.2	12.4
Premises	94.6	1.0	94.6
Furniture and equipment	31.5	1.0	31.5
Leasehold improvements and long-term prepayments	74.4	1.0	74.4
Pension asset	66.8	1.0	66.8
Deferred tax asset	<u>170.9</u>	1.0	<u>170.9</u>
Total	<u>\$ 790.6</u>		<u>\$ 517.7</u>
Imputed equity:			
Capital to risk-weighted assets	10.0%		
Capital to total assets	6.5%		

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 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 before providing credit according to established availability schedules.

C. *Check Service* — Table 7 shows the 2019 actual, 2020 estimated, and 2021 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)]
2019 (actual)	\$128.2	\$121.9	\$6.3	\$1.4	104.0%
2020 (estimate)	114.4	110.4	4.0	1.3	102.4%
2021 (budget)	107.1	108.5	-1.5	1.1	97.7%

1. *2020 Estimate* — The Reserve Banks estimate that the check service will recover 102.4 percent of total expenses and targeted ROE, compared with a 2020 budgeted recovery rate of 104.3 percent.

Through August, total commercial forward and total commercial return check volumes were 14.9 percent and 24.6 percent lower, respectively, than they were during the same period last year. Consistent with anticipated fourth-quarter declines and combined with the uncertainties created by COVID-19, for full-year 2020, the Reserve Banks estimate that their total forward check volume will decline 13.6 percent (compared with a budgeted decline of 8.9 percent) and their total return check volume will decline 27.1 percent (compared with a budgeted decline of 8.7 percent) from 2019 levels.²³ The Reserve Banks expect that check volumes will continue to decline, although uncertainty remains as to the rate of decline into 2021. In particular, the Reserve Banks' check volumes are expected to decline because of substitution away from checks to other payment instruments. While these volume declines will affect budgeted total revenue, the Reserve Banks

²³ Total Reserve Bank forward check volumes are expected to be 3.8 billion in 2020. Total Reserve Bank return check volumes are expected to be 19.8 million in 2020.

estimate that total expenses will also be lower given the continued realization of operational efficiencies.

2. *2021 Pricing* — The Reserve Banks expect Check Services to recover 97.7 percent of total expenses and targeted ROE in 2021. The Reserve Banks project revenue to be \$107.1 million, a decline of 6.4 percent from the 2020 estimate. Total expenses for Check Services are projected to be \$108.5 million, a decrease of \$1.9 million, or 1.7 percent, from 2020 expenses, primarily because of reduced operating costs.

The Reserve Banks will increase the fixed monthly participation fee and introduce a new tiered pricing structure. The tier structure will align with the structure and volume thresholds of the existing FedForward® Standard Endpoint Tier Listing. In light of the ongoing volume declines, the changes are intended to continue to support revenue stability through fixed fees while minimizing the impact of fee increases on smaller institutions, taking into account higher network capacity costs associated with higher volumes from larger institutions. Table 8 shows the 2021 tiered participation fees.

Table 8

Check 21 Participation Fee Structure	
TIER²⁴	MONTHLY FEE
1	\$135.00
2	90.00
3	60.00
4	40.00

²⁴ This fee is charged to financial institutions that have received any Check 21 electronic or substitute check volume (forward or return) from the Reserve Banks during the month. The fee is applied at the parent financial institution level, as defined in the Reserve Banks' Global Customer Directory (GCD). Each financial institution's tier assignment is determined by the criteria described in the FedForward Standard Endpoint Tier Listing.

The primary risks to the Reserve Banks’ ability to achieve budgeted 2021 cost recovery for Check Services include greater-than-expected declines in check volume due to the general reduction in check writing and competition from correspondent banks, aggregators, and direct exchanges, which would result in lower-than-anticipated revenue.

D. *FedACH Service* — Table 9 shows the 2019 actual, 2020 estimate, and 2021 budgeted cost-recovery performance for the commercial FedACH service.

Table 9

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)]
2019 (actual)	\$153.1	\$154.8	\$-1.7	\$2.0	97.6%
2020 (estimate)	158.1	160.2	-2.1	1.9	97.6%
2021 (budget)	159.6	162.3	-2.7	1.6	97.4%

1. *2020 Estimate* — The Reserve Banks estimate that the FedACH service will recover 97.6 percent of total expenses and targeted ROE, compared with a 2020 budgeted recovery rate of 100.6 percent.

Through August, FedACH commercial origination and receipt volume was 4.6 percent higher than it was during the same period last year. For full-year 2020, the Reserve Banks estimate that FedACH commercial origination and receipt volume will increase 4.8 percent from 2019 levels, compared with a 2020 budgeted increase of 4.1 percent. However, investment costs associated with a multiyear technology initiative to modernize the FedACH processing platform continue to drive the overall underrecovery rate. Although FedACH is estimated to not fully recover its costs in 2020, the Reserve Banks are expected to fully recover FedACH costs following the finalization of the FedACH technology modernization project.

2. *2021 Pricing* — The Reserve Banks expect the FedACH service to recover 97.4 percent of total expenses and targeted ROE in 2021. The Reserve Banks project revenue to be \$159.6 million, an increase of 0.9 percent from the 2020 estimate. Total expenses are projected to be \$162.3 million, an increase of 1.3 percent from 2020 expenses.

The Reserve Banks will not change existing FedACH fees. This approach is consistent both with a multiyear strategy of providing price stability for customers over the period of modernizing the FedACH processing platform and the more recent uncertainties due to COVID-19. Given the continued costs associated with the FedACH technology modernization project, the Reserve Banks project to under recover costs in 2021 at 97.4 percent. Following implementation of the FedACH technology modernization, the Reserve Banks expect to fully recover costs related to the provision of FedACH services.

The primary risks to the Reserve Banks’ ability to achieve budgeted 2021 cost recovery for the FedACH service are unanticipated cost overruns associated with the FedACH technology modernization project and unanticipated volume reductions due to economic conditions.

E. *Fedwire Funds and National Settlement Services* — Table 10 shows the 2019 actual, 2020 estimate, and 2021 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)]
2019 (actual)	\$135.6	\$137.7	\$-2.1	\$1.6	97.3%
2020 (estimate)	144.3	134.9	9.4	2.4	105.1%
2021 (budget)	145.7	143.5	2.1	1.4	100.5%

1. *2020 Estimate* — The Reserve Banks estimate that the Fedwire Funds and National Settlement Services will recover 105.1 percent of total expenses and targeted ROE, compared with a 2020 budgeted recovery rate of 100.6 percent.

Through August, Fedwire Funds Service online volume was 6.8 percent higher than it was during the same period last year. For full-year 2020, the Reserve Banks estimate that Fedwire Funds Services online volume will increase 5.4 percent from 2019 levels, compared with the 1.0 percent volume decrease that had been budgeted. Through August, the National Settlement Service (NSS) settlement file volume was 7.2 percent lower than it was during the same period last year, and settlement entry volume was 0.2 percent higher. For the full year, the Reserve Banks estimate that settlement file volume will decrease 5.3 percent (slightly more than the budgeted decrease of 4.3 percent) and settlement entry volume will increase 0.7 percent from 2019 levels (compared with a budgeted 0.7 percent decrease).

2. *2021 Pricing* — The Reserve Banks expect the Fedwire Funds and National Settlement Services to recover 100.5 percent of total expenses and targeted ROE. Revenue is projected to be \$145.7 million, an increase of 1.0 percent from the 2020 estimate. The Reserve Banks project total expenses to be roughly \$8.6 million higher than 2020. The Reserve Banks will not change existing Fedwire Funds and National Settlement Service fees for 2021. This approach is consistent with the Reserve Banks' 2021 strategy of providing price stability for customers in light of uncertainties due to COVID-19.

The primary risk to the Reserve Banks' ability to achieve budgeted 2021 cost recovery for the Fedwire Funds and National Settlement Service is higher-than-anticipated operating costs associated with technology and resiliency initiatives.

F. *Fedwire Securities Service* — Table 11 shows the 2019 actual, 2020 estimate, and 2021 budgeted cost-recovery performance for the Fedwire Securities Service.²⁵

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)]
2019 (actual)	\$27.1	\$26.7	\$0.4	\$0.3	100.3%
2020 (estimate)	28.7	27.9	0.8	0.3	101.9%
2021 (budget)	26.1	25.5	0.5	0.3	100.9%

1. *2020 Estimate* — The Reserve Banks estimate that the Fedwire Securities Service will recover 101.9 percent of total expenses and targeted ROE, compared with a 2020 budgeted recovery rate of 102.8 percent. The Reserve Banks estimate revenue to be \$26.6 million, an increase of 0.8 percent from the 2019 budget. Total expenses are projected to be \$27.1 million for full-year 2019, a decrease of 1.5 percent from the 2019 budget.

Through August, Fedwire Securities Service online agency transfer volume was 50.9 percent higher than it was during the same period last year. For full-year 2020, the Reserve Banks estimate that Fedwire Securities Service online agency transfer volume will increase 38.3 percent from 2019 levels, compared with a budgeted increase of 3.4 percent. The volatility in online agency transfer volume is attributed to a combination of uncertainties generated by COVID-19, and the low interest rate environment spurring incentives to refinance mortgages.

²⁵ The Reserve Banks provide transfer services for securities issued by the U.S. Treasury, federal government agencies, government-sponsored enterprises, and certain international institutions. The priced component of this service, reflected in this memorandum, consists of revenues, expenses, and volumes associated with the transfer of all non-Treasury securities. For Treasury securities, the U.S. Treasury assesses fees for the securities transfer component of the service. The Reserve Banks assess a fee for the funds settlement component of a Treasury securities transfer; this component is not treated as a priced service.

For full-year 2020, volumes for two of the top three Fedwire Securities' largest revenue-generating services – account maintenance and issue maintenance – are expected to decline from 2019 levels. Through August, account maintenance volume was 3.6 percent lower than it was during the same period last year. For full-year 2020, the Reserve Banks estimate that account maintenance volume will decline 3.6 percent from 2019 levels, compared with a budgeted decline of 2.1 percent. Through August, the number of agency issues maintained was 3.3 percent lower than it was during the same period last year. For full-year 2020, the Reserve Banks estimate that the number of agency issues maintained will decline 3.5 percent from 2019 levels, compared with a budgeted decline of 1.0 percent.

2. 2021 Pricing — The Reserve Banks expect the Fedwire Securities Service to recover 100.9 percent of total expenses and targeted ROE in 2021. Revenue is projected to be \$26.1 million, a decrease of 9.05 percent from the 2020 estimate. The Reserve Banks also project that 2021 expenses will decrease by \$2.4 million from the 2020 estimate.

The Reserve Banks will not change Fedwire Securities Service fees for 2021. This approach is consistent with the Reserve Banks' 2021 strategy of providing price stability for customers in light of uncertainties due to COVID-19.

The primary risk to the Reserve Banks' ability to achieve budgeted 2021 cost recovery for these services is higher than anticipated operating costs associated with technology and resiliency initiatives. In addition, market volatility related to COVID-19 could introduce further uncertainty in forecasting revenue associated with online agency transfers.

G. FedLine Solutions — The Reserve Banks charge fees for the electronic connections that depository institutions use to access priced services and allocate the costs and revenues associated with this electronic access to the priced

services.²⁶ There are currently six FedLine channels through which customers can access the Reserve Banks' priced services: FedMail®, FedLine Exchange®, FedLine Web®, FedLine Advantage®, FedLine Command® and FedLine Direct®.²⁷ The Reserve Banks bundle these channels into eleven FedLine packages, described below, that are supplemented by a number of premium (or à la carte) access and accounting information options. In addition, the Reserve Banks offer FedComplete packages, which are bundled offerings of FedLine connections and a fixed number of FedACH, Fedwire Funds, and Check 21-enabled transactions.

Eight attended access packages offer manual access to critical payment and information services via a web-based interface. The FedMail package provides access to basic information services via email, while the two FedLine Exchange packages are designed to provide certain services, such as the E-Payments Routing Directory, to customers that otherwise do not use FedLine for any payment services. The two FedLine Web packages offer 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, Internet Protocol (IP)-based interfaces. The FedLine Command package offers an unattended connection to FedACH as well as to most accounting information services. The two remaining options are FedLine Direct packages, which allow for unattended connections at multiple connection speeds to Check, FedACH,

²⁶ FedLine Solutions provide customers with access to Reserve Bank priced services. As such, FedLine costs and revenue are allocated to the Reserve Banks' priced services on an expense ratio basis.

²⁷ FedMail, FedLine Exchange, FedLine Web, FedLine Advantage, FedLine Command, and FedLine Direct are registered trademarks of the Federal Reserve Banks.

Fedwire Funds, and Fedwire Securities transactional and information services and to most accounting information services.

The Reserve Banks will not change FedLine Solutions packages for 2021. This approach is consistent with the Reserve Banks' 2021 strategy of providing price stability for customers in light of uncertainties due to COVID-19.

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.”²⁸ Under this policy, the Board assesses whether changes would have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services because of differing legal powers or constraints or because of a dominant market position deriving from such legal differences. If any proposed changes create such an effect, the Board must further evaluate the changes to assess whether the benefits associated with the 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 2021 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 Reserve Banks may experience overrecovery or underrecovery in the short run because of the unpredictability of COVID-19 and its implications for volumes. Broadly, holding prices flat offers price stability for customers facing unique challenges in 2021 and provides for full cost recovery over the long run.

²⁸ Federal Reserve Regulatory Service (FRRS) 9-1558.

III. 2021 Fee Schedules

FEDACH SERVICE 2021 FEE SCHEDULE

EFFECTIVE JANUARY 4, 2021.

BOLD INDICATES CHANGES FROM 2020 PRICES

	Fee
FedACH minimum monthly fee	
Originating depository financial institution (ODFI) ²⁹	\$50.00
Receiving depository financial institution (RDFI) ³⁰	\$40.00
Origination (per item or record)	
Forward or return items	\$0.0035
SameDay Service - forward item ³¹	\$0.0010 surcharge
Addenda record	\$0.0015
FedLine Web-originated returns and notification of change (NOC) ³²	\$0.35
Facsimile Exception Return/NOC ³³	\$45.00
SameDay Exception Return	\$45.00
Automated NOC	\$0.20
Volume discounts (based on monthly billed origination volume) ³⁴ per item when origination volume is	
750,001 to 1,500,000 items per month	\$0.0008 discount
more than 1,500,000 items per month	\$0.0010 discount
Volume discounts (based on monthly billed receipt volume) ³⁵ per item when receipt volume is	
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	\$0.0035

²⁹ Any ODFI incurring less than \$50 for the following fees will be charged a variable amount to reach the minimum: Forward value and non-value item origination fees, and FedGlobal ACH origination surcharges.

³⁰ Any RDFI not originating forward value and non-value items and incurring less than \$40 in receipt fees will be charged a variable amount to reach the minimum. 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.

³¹ 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.

³² The fee includes the item and addenda fees in addition to the conversion fee.

³³ The fee includes the item and addenda fees in addition to the conversion fee. Reserve Banks also assess a \$45 fee for every government paper return/NOC they process.

³⁴ Origination volumes at these levels qualify for a waterfall discount which includes all FedACH origination items.

³⁵ Origination discounts based on monthly billed receipt volume apply only to those items received by FedACH receiving points and are available only to Premium Receivers.

Return Item	\$0.0075
Addenda record	\$0.0015
Volume discounts	
Non-Premium Receivers ³⁶ per item when volume is	
750,001 to 12,500,000 items per month ³⁷	\$0.0017 discount
more than 12,500,000 items per month ³⁸	\$0.0019 discount
Premium Receivers, Level One ³⁹ per item when volume is	
750,001 to 1,500,000 items per month ³⁷	\$0.0017 discount
1,500,001 to 2,500,000 items per month ³⁸	\$0.0017 discount
2,500,001 to 12,500,000 items per month ³⁸	\$0.0018 discount
more than 12,500,000 items per month ³⁸	\$0.0020 discount
Premium Receivers, Level Two ⁴⁰ per item when volume is	
750,001 to 1,500,000 items per month ³⁷	\$0.0017 discount
1,500,001 to 2,500,000 items per month ³⁸	\$0.0017 discount
2,500,001 to 12,500,000 items per month ³⁸	\$0.0019 discount
more than 12,500,000 items per month ³⁸	\$0.0021 discount
FedACH Bundled Package Pricing Discount	
Monthly Bundled Service Package Discount ⁴¹	\$20.00 discount

³⁶ RDFIs receiving through FedACH less than 90 percent of their FedACH-originated items.

³⁷ This per-item discount is a reduction to the standard receipt fees listed in this fee schedule.

³⁸ Receipt volumes at these levels qualify for a waterfall discount which includes all FedACH receipt items.

³⁹ RDFIs receiving through FedACH at least 90 percent of their FedACH-originated items, but less than 90 percent of all of their ACH items originated through any operator.

⁴⁰ RDFIs receiving through FedACH at least 90 percent of all of their ACH items originated through any operator.

⁴¹To qualify for the discount, a financial institution must meet all of the following criteria in a given month: (1) be charged the minimum monthly fee - forward origination (57208); (2) subscribe to FedLine Web Plus or any higher FedLine[®] access solution; and (3) subscribe to the FedPayments Reporter service, the FedACH RDFI Alert service, or the FedACH Risk Origination Monitoring service.

FedACH Risk[®] Management Services⁴²

Monthly Package Fee (a single fee based on total number of criteria sets)

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 584 criteria sets	\$1,100.00

Batch/Item Monitoring (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

FedPayments Reporter Service monthly package includes the following reports

ACH Received Entries Detail – Customer and Depository Financial Institution

ACH Return Reason Report – Customer and Depository Financial Institution

ACH Originated Entries Detail – Customer and Depository Financial Institution

ACH Volume Summary by SEC Code – Customer

ACH Customer Transaction Activity

ACH Death Notification

ACH International (IAT)

ACH Notification of Change

ACH Payment Data Information File

ACH Remittance Advice Detail

ACH Remittance Advice Summary

ACH Return Item Report and File

ACH Return Ratio

ACH Social Security Beneficiary

ACH Originator Setup

ACH Report Delivery via FedLine Solution

On Demand Report Surcharge⁴³ \$1.00

Monthly Package Fee (counts reflect reports generated as well as delivered via a FedLine Solution)

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

⁴² 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.

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)⁴³

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 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
ACH Originated Batch Report (monthly)	
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 Originated Batch Report (daily)	
Scheduled Report	\$0.65
On Demand Surcharge	\$1.00

On-us inclusion

Participation (monthly fee per RTN)	\$10.00
Per-item	\$0.0030
Per-addenda	\$0.0015

Report delivery via encrypted email (per email) \$0.20

Other Fees and Discounts

Monthly fee (per RTN)	
FedACH Participation Fee ⁴⁴	\$65.00
SameDay Service Origination Participation Fee ⁴⁵	\$10.00

⁴³ Premier reports generated on demand are subject to the package/tiered fees plus a surcharge.

⁴⁴ The fee applies to RTNs that have received or originated FedACH transactions during a month. Institutions that receive only U.S. government transactions or that elect to use a private-sector operator exclusively are not assessed the fee.

⁴⁵ This surcharge is assessed to any RTN that originates at least one item meeting the criteria for same-day processing and settlement in a given month.

FedACH Settlement Fee ⁴⁶	\$55.00
FedACH Information File Extract Fee	\$150.00
IAT Output File Sort Fee	\$75.00
Fixed Participation Fee - Automated NOCs ⁴⁷	\$5.00
Non-Electronic Input/Output fee ⁴⁸	
CD/DVD (CD or DVD)	\$50.00
Paper (file or report)	\$50.00
Fees and Credits Established by NACHA ⁴⁹	
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)	\$22.00
NACHA Admin Network fee (per entry)	\$0.000185
FedGlobal [®] ACH Payments ⁵⁰	
Fixed Monthly Fee (per RTN) ⁵¹	
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) ⁵²	
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) ⁵²	
Canada service	\$0.75
Mexico service	\$0.80
Panama service	\$0.85
Europe service	\$1.38

⁴⁶ The fee is applied to any RTN with activity during a month, including RTNs 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 RTNs that use the Reserve Banks for only U.S. government transactions.

⁴⁷ Fee will be assessed only when automated NOCs are generated.

⁴⁸ Limited services are offered in contingency situations.

⁴⁹ The fees and credits listed are collected from the ODFI and credited to NACHA (admin network) or to the RDFI (same-day entry and unauthorized entry) in accordance with the *ACH Rules*.

⁵⁰ The international fees and surcharges vary from country to country as these are negotiated with each international gateway operator.

⁵¹ A single monthly fee based on total FedGlobal ACH Payments origination volume.

⁵² This per-item surcharge is in addition to the standard domestic origination fees listed in this fee schedule.

Per-item Origination Fee for Monthly Volume less than 161 items (surcharge) ⁵²	
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 ⁵³	\$0.99 (surcharge)
Trace of item at receiving gateway	\$5.50
Trace of item not at receiving gateway	\$7.00
Mexico service	
Return received from Mexico ⁵³	\$0.91 (surcharge)
Item trace	\$13.50
Foreign currency to foreign currency (F3X) item originated to Mexico ⁵² (surcharge)	\$0.67
Panama service	
Return received from Panama ⁵³	\$1.00 (surcharge)
Item trace	\$7.00
NOC	\$0.72
Europe service	
F3X item originated to Europe ⁵²	\$1.25 (surcharge)
Return received from Europe ⁵³	\$1.35 (surcharge)
Item trace	\$7.00
Exception Resolution Service	
Fixed Fee per RTN ⁵⁴ (monthly)	
Self-Managed Cases	\$10.00
Agent-Managed Cases	\$10.00
Offline Service Participant	\$60.00
Variable Case Open Monthly Fees per Case (applies to self-managed and agent-managed cases only at the parent RTN) ⁵⁵	
1 – 50 cases	\$1.25
51 – 100 cases	\$1.00
101 – 500 cases	\$0.75
501 – 1,000 cases	\$0.50
1,001 – 5,000 cases	\$0.25
5,001 – 10,000 cases	\$0.20

⁵³ This per-item surcharge is in addition to the standard domestic receipt fees listed in this fee schedule.

⁵⁴ Any financial institution that opens at least 1,000 Exception Resolution Service cases in a given month will receive a 50% discount on its Exception Resolution Service fixed fees for that month.

⁵⁵ The per case fees are rolled up to the parent RTN, such that a customer that opens a total of 100 cases per month under two separate RTNs would pay a total of \$112.50 (\$1.25 for the first 50 cases and \$1.00 for the next 50 cases) in addition to the fixed fees.

10,001 – 99,999,999 cases	\$0.10
Offline Service Participant – Case Fees ⁵⁶	
Case Open Fee	\$5.00
Case Response Fee	\$5.00

⁵⁶ A depository institution may enroll in the Service as an offline Service Participant by designating the Reserve Bank to access and use the functionality of the application on behalf of the Offline Participant.

FEDWIRE FUNDS AND NATIONAL SETTLEMENT SERVICES 2021 FEE SCHEDULE

EFFECTIVE JANUARY 4, 2021.
BOLD INDICATES CHANGES FROM 2020 PRICES.

Fedwire Funds Service

	Fee
Monthly Participation Fee	\$95.00
Basic volume-based pre-incentive transfer fee (originations and receipts) – per transfer for	
Tier 1: The first 14,000 transfers per month	\$0.840
Tier 2: Additional transfers up to 90,000 per month	\$0.250
Tier 3: Every transfer over 90,000 per month	\$0.165
Volume-based transfer fee with the incentive discount (originations and receipts) – per eligible transfer for ⁵⁷	
Tier 1: The first 14,000 transfers per month	\$0.168
Tier 2: Additional transfers up to 90,000 per month	\$0.050
Tier 3: Every transfer over 90,000 per month	\$0.033
Surcharge for Offline Transfers (Originations and Receipt)	\$65.00
Surcharge for End-of-Day Transfer Originations ⁵⁸	\$0.26
Monthly FedPayments Manager Import/Export fee ⁵⁹	\$50.00
Surcharge for high-value payments:	
> \$10 million	\$0.14
> \$100 million	\$0.36
Surcharge for Payment Notification:	

⁵⁷ 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: \$0.672 for transfers up to 14,000; \$0.200 for transfers 14,001 to 90,000; and \$0.132 for transfers over 90,000.

⁵⁸ This surcharge applies to originators of transfers that are processed by the Reserve Banks after 5:00 p.m. eastern time.

⁵⁹ 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.

Origination Surcharge ⁶⁰	\$0.01
Receipt Volume ^{60,61}	N/A
Delivery of Reports – Hard Copy Reports to On-Line Customers	\$50.00
Special Settlement Arrangements (charge per settlement day) ⁶²	\$150.00

National Settlement Service

Basic	
Settlement Entry Fee	\$1.50
Settlement File Fee	\$30.00
Surcharge for Offline File Origination ⁶³	\$45.00
Minimum Monthly Fee ⁶⁴	\$60.00

⁶⁰ Payment Notification and End-of-Day Origination surcharges apply to each Fedwire funds transfer message.

⁶¹ Provided on billing statement for informational purposes only.

⁶² This charge is assessed to settlement arrangements that use the Fedwire Funds Service to effect the settlement of interbank obligations (as opposed to those that use the National Settlement Service). With respect to such special settlement arrangements, other charges may be assessed for each funds transfer into or out of the accounts used in connection with such arrangements.

⁶³ If your organization is a settlement agent, it may be able to use the NSS offline service if it is experiencing an operational event that prevents the transmission of settlement files via its electronic connection to the Federal Reserve Banks. The Federal Reserve Banks have limited capacity to process offline settlement files. As a result, while the Federal Reserve Banks use best efforts to process offline settlement file submissions, there is no guarantee that an offline settlement file, in particular one that is submitted late in the operating day or that contains a large number of entries, will be accepted for processing. Only those persons identified as authorized individuals on the NSS 04 Agent Contact Form may submit offline settlement files. For questions related to the NSS offline service, please contact NSS Central Support Service Staff (CSSS) at 800-758-9403, or via email at csss.staff@ny.frb.org.

⁶⁴ Any settlement arrangement that accrues less than \$60 during a calendar month will be assessed a variable amount to reach the minimum monthly fee.

**FEDWIRE SECURITIES SERVICE 2021 FEE SCHEDULE
(NON-TREASURY SECURITIES)**

EFFECTIVE JANUARY 4, 2021.

BOLD INDICATES CHANGES FROM 2020 PRICES.

	Fee
Basic Transfer Fee ⁶⁵	
Transfer or reversal originated or received	\$0.98
Surcharge ⁶⁶	
Offline origination & receipt surcharge	\$80.00
Monthly Maintenance Fees ⁶⁵	
Account maintenance (per account)	\$57.50
Issue maintenance (per issue/per account)	\$0.77
Claims Adjustment Fee ^{65,67}	\$1.00
GNMA Serial Note Stripping or Reconstitution Fee ⁶⁸	\$9.00
Joint Custody Origination Surcharge ^{65,69}	\$46.00
Delivery of Reports – Hard Copy Reports to On-Line Customers ⁶⁵	\$50.00

⁶⁵ These fees are set by the Federal Reserve Banks.

⁶⁶ This surcharge is set by the Federal Reserve Banks. It is in addition to any basic transfer or reversal fee.

⁶⁷ The Federal Reserve Banks offer an automated claim adjustment process only for Agency mortgage-backed securities.

⁶⁸ This fee is set by and remitted to the Government National Mortgage Association (GNMA).

⁶⁹ The Federal Reserve Banks charge participants a Joint Custody Origination Surcharge for both Agency and Treasury securities.

FEDLINE 2021 FEE SCHEDULE

EFFECTIVE JANUARY 4, 2021.

BOLD INDICATES CHANGES FROM 2020 PRICES.

	Fee
<u>FedComplete Packages (monthly)</u> ^{70, 71}	
FedComplete 100A Plus ⁷²	\$825.00
includes FedLine Advantage Plus package	
FedLine subscriber 5-pack	
7,500 FedForward transactions	
46 FedForward Cash Letter items	
70 FedReturn transactions	
14,000 FedReceipt [®] transactions	
35 Fedwire Funds origination transfers	
35 Fedwire Funds receipt transfers	
Fedwire monthly participation fee	
1,000 FedACH origination items	
FedACH monthly minimum fee – Forward Origination	
7,500 FedACH receipt items	
FedACH monthly minimum fee – Receipt	
10 FedACH web-originated return/NOC	
500 FedACH addenda record originated	
1,000 FedACH addenda record received	
100 FedACH SameDay Service origination items	
FedACH Participation Fee	
FedACH settlement fee	
FedACH SameDay Service origination participation fee	
 FedComplete 100A Premier	 \$900.00
includes FedLine Advantage Premier package	
Volumes included in the FedComplete 100A Plus package	
 FedComplete 100C Plus	 \$1,375.00
includes FedLine Command Plus package	
Volumes included in the FedComplete 100A Plus package	

⁷⁰ FedComplete customers that use the email service would be charged the FedMail Email a la carte fee and for all FedMail-FedLine Exchange Subscriber 5-packs.

⁷¹ FedComplete packages are all-electronic service options that bundle payment services with an access solution for one monthly fee.

⁷² Packages with an “A” include the FedLine Advantage channel, and packages with “C” include the FedLine Command channel..

FedComplete 200A Plus	\$1,350.00
includes FedLine Advantage Plus package	
FedLine subscriber 5-pack	
25,000 FedForward transactions	
46 FedForward Cash Letter items	
225 FedReturn transactions	
25,000 FedReceipt® transactions	
100 Fedwire Funds origination transfers	
100 Fedwire Funds receipt transfers	
Fedwire monthly participation fee	
2,000 FedACH origination items	
FedACH monthly minimum fee – Forward Origination	
25,000 FedACH receipt items	
FedACH monthly minimum fee – Receipt	
20 FedACH web-originated return/NOC	
750 FedACH addenda record originated	
1,500 FedACH addenda record received	
200 FedACH SameDay Service origination items	
FedACH Participation Fee	
FedACH settlement fee	
FedACH SameDay Service origination participation fee	
FedComplete 200A Premier	\$1,425.00
includes FedLine Advantage Premier package	
Volumes included in the FedComplete 200A Plus package	
FedComplete 200C Plus	\$1,900.00
includes FedLine Command Plus package	
Volumes included in the FedComplete 200A Plus package	
FedComplete Excess Volume and Receipt Surcharge ⁷³	
FedForward ⁷⁴	\$0.03700/item
FedReturn	\$0.82000/item
FedReceipt	\$0.00005/item
Fedwire Funds Origination	\$0.84000/item
Fedwire Funds Receipt	\$0.08400/item
FedACH Origination	\$0.00350/item

⁷³ Per-item surcharges are in addition to the standard fees listed in the applicable priced services fee schedules.

⁷⁴ FedComplete customers will be charged \$4 for each FedForward cash letter over the monthly package threshold. This activity will appear under billing code 51998 in Service Area 1521 on a month-lagged basis.

FedACH Receipt	\$0.00035/item
FedComplete credit adjustment	various
FedComplete debit adjustment	various
<u>FedLine Customer Access Solutions (monthly)</u>	
FedMail ⁷⁵	\$85.00
includes	<ul style="list-style-type: none"> FedMail access channel Check FedFoward, Fed Return and FedReceipt Services Check Adjustments FedACH Download Advice and Settlement Information Fedwire Funds Offline Advices Daily Statement of Account (Text) Daylight Overdraft Reports Monthly Statement of Service Charges (Text) Electronic Cash Difference Advices

⁷⁵ 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 Exchange ⁷⁵	\$40.00
includes E-Payments Directory (via manual download)	
FedLine Exchange Premier ⁷⁵	\$125.00
includes FedLine Exchange package	
E-Payments Directory (via automated download)	
FedLine Web ⁷⁶	\$110.00
includes FedLine Web access channel	
Services included in the FedLine Exchange package	
Check FedForward, FedReturn and FedReceipt services	
Check Adjustments	
FedACH Derived Returns and NOCs	
FedACH File, Batch and Item Detail Information	
FedACH Download Advice	
FedACH Settlement Information	
FedACH Customer Profile Information	
FedACH Returns Activity Statistics	
FedACH Risk RDFI Alert Service	
FedACH Risk Returns Reporting Service	
FedACH Exception Resolution Service	
FedCash [®] Services	
FedLine Web Plus ⁷⁶	\$160.00
includes Services included in the FedLine Web package	
FedACH Risk Origination Monitoring Service	
FedACH FedPayments Reporter Service	
Check Large Dollar Return	
Check FedImage Services	
Account Management Information (AMI)	
Daily Statement of Account (PDF, Text)	
Daylight Overdraft Reports	
Monthly Account Services (SCRD) File	
Monthly Statement of Service Charges (PDF, Text)	
E-Payments Routing Directory (via automated download)	

⁷⁶ 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.

FedLine Advantage⁷⁶ \$415.00

includes FedLine Advantage access channel
One VPN device
Services included in the FedLine Web package
FedACH File Transmission To/From Federal Reserve
FedACH Request Output File Delivery
FedACH View File Transmission and Processing Status
Fedwire Originate and Receive Funds Transfer
Fedwire Originate and Receive Securities Transfer
National Settlement Service Services
Check Large Dollar Return
Check FedImage Services
Account Management Information with Intra-Day Download Search File
Daily Statement of Account (PDF, Text)
Daylight Overdraft Reports
Monthly Account Services (SCRD) File
Monthly Statement of Service Charges (PDF, Text)

FedLine Advantage Plus⁷⁶ \$460.00

includes Services included in the FedLine Advantage package
One VPN device
FedACH Risk Origination Monitoring Service
FedACH FedPayments Reporter Service
Fedwire Funds FedPayments Manager Import/Export (less than or equal to 250
Fedwire transactions and one routing number per month)
FedTransaction Analyzer[®] (less than 250 or equal to Fedwire transactions and one
routing number per month)
E-Payments Routing Directory (via automated download)

FedLine Advantage Premier⁷⁶ \$570.00

includes FedLine Advantage Plus package
Two VPN devices
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	\$1,035.00
includes	
FedLine Command access channel	
Services included in the FedLine Advantage Plus package	
One VPN device	
Additional FedLine Command server certificates	
Fedwire Statement Services	
Fedwire Funds FedPayments Manager Import/Export	
FedTransaction Analyzer	
Intra-Day File with Transaction Details (up to six times daily)	
Statement of Account Spreadsheet File (SASF)	
Financial Institution Reconciliation Data (FIRD) File (machine readable)	

FedLine Direct Plus ⁷⁷	\$5,500.00
includes	
FedLine Direct access channel	
One VPN device	
2 Mbps Dedicated WAN Connection	
Services included in the FedLine Command Plus package	
FedLine Direct server certificates	
Treasury Check Information System (TCIS)	
Dual Vendors	
FedLine Direct Contingency Solution	
Check 21 Services	

FedLine Direct Premier ⁷⁷	\$10,500.00
includes	
FedLine Direct Plus package (new)	
Two 2 Mbps dedicated WAN Connections	
One Network Diversity	
Two VPN devices	

A la carte options (monthly)⁷⁸

Electronic Access	
FedMail - FedLine Exchange Subscriber 5-pack	\$15.00
FedLine Subscriber 5-pack (access to Web and Advantage)	\$80.00
Additional VPNs ⁷⁹	\$100.00

⁷⁷ Early termination fees and/or expedited order fees may apply to all FedLine Direct packages and FedLine Direct a la carte options.

⁷⁸ These add-on services can be purchased only with a FedLine Solutions packages.

⁷⁹ Additional VPNs are available for FedLine Advantage, FedLine Command, and FedLine Direct packages only.

Additional 2 Mbps WAN connection ⁷⁷	\$3,000.00
WAN Connection Upgrade	
10 Mbps ⁸⁰	\$1,700.00
30 Mbps ⁸⁰	\$3,000.00
50 Mbps ⁸⁰	\$4,000.00
100 Mbps ⁸⁰	\$7,000.00
200 Mbps ⁸⁰	\$11,000.00
FedLine International Setup (one-time fee)	\$5,000.00
FedLine Custom Implementation Fee ⁸¹	various
Network Diversity	\$2,500.00
FedMail Email (for customers with FedLine Web and above) ⁸²	\$40.00
FedMail Fax ⁸³	\$150.00
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) ⁸⁴	\$75.00
E-Payments Automated Download (6-20 Add'l Codes) ⁸⁴	\$150.00
E-Payments Automated Download (21-50 Add'l Codes) ⁸⁴	\$300.00
E-Payments Automated Download (51-100 Add'l Codes) ⁸⁴	\$500.00
E-Payments Automated Download (101-250 Add'l Codes) ⁸⁴	\$1,000.00
E-Payments Automated Download (>250 Add'l Codes) ⁸⁴	\$2,000.00
Accounting Information Services (monthly)	
Cash Management System (CMS) Plus – Own report – up to six files with ⁸⁵	
no respondent/sub-account activity	\$60.00
less than 9 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
>500 respondents and/or sub-accounts	\$1,000.00

⁸⁰ These upgrades are only available for the new FedLine Direct packages and the Add'l 2M WAN connection. Fee is in addition to the FedLine Direct package fees or additional WAN fees.

⁸¹ The FedLine Custom Implementation Fee is \$2,500 or \$5,000 based on the complexity of the setup.

⁸² Available only to customers with a priced FedLine package.

⁸³ Limited to installed base only.

⁸⁴ Five download codes are included at no cost in all Plus and Premier packages.

⁸⁵ Cash Management Service options are limited to plus and premier packages.

End-of-Day Financial Institution Reconciliation Data (FIRD) File ⁸⁶	\$150.00
Statement of Account Spreadsheet File ⁸⁷	\$150.00
Intra-day Download Search File (with AMI) ⁸⁸	\$150.00
Other	
Software Certification	\$0.00 to \$8,000.00
Vendor Pass-Through Fee	various
Electronic Access Credit Adjustment	various
Electronic Access Debit Adjustment	various

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By order of the Board of Governors of the Federal Reserve System.

Ann Misback (signed)
Ann Misback,
Secretary of the Board.

⁸⁶ 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.

⁸⁷ 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.

⁸⁸ 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.