

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

DIVISION OF RESERVE BANK OPERATIONS AND PAYMENT SYSTEMS

2020 Federal Reserve Bank Budgets Addendum

ACTION

The director of the Division of Reserve Bank Operations and Payment Systems, acting under limited authority specifically delegated by the Board for this purpose, has approved the Reserve Bank budgets reflecting the final authorization from the U.S. Department of the Treasury's Bureau of the Fiscal Service (Fiscal Service).¹ Fiscal Service's final authorization of the 2020 fiscal agent services requested of the Reserve Banks identified expense reductions totaling approximately \$26 million for four Districts and Federal Reserve Information Technology (FRIT).

Given the relative immateriality of the overall change, Reserve Banks were not required to make formal revisions to their 2020 budgets. Instead, the director of the Division of Reserve Bank Operations and Payment Systems, acting within his limited delegated authority, designated the affected programs as conditionally approved.² For those conditionally approved initiatives, Reserve Banks may fund the programs up to the amount that has been approved per Fiscal Service. Should Banks see cause to expend funds in excess of the approved amount, or otherwise change the scope of work from what has been authorized, Reserve Banks are required to seek approval from both Fiscal Service and the director of the Division of Reserve Bank Operations and Payment Systems.

The final approved budgets include the following:

1. Total 2020 Reserve Bank operating expense budgets of \$4,771.2 million, which reflects an increase of \$251.3 million, or 5.6 percent, from the 2019 forecasted expenses. Total 2020 budgeted employment for the Reserve Banks,

¹ On December 18, 2019, the Board approved the 2020 Reserve Bank operating budgets totaling \$4,771.2 million, inclusive of \$668.2 million in Treasury services. The subsequent reductions identified by Fiscal Service constitute less than the 1 percent threshold for such adjustments explicitly specified in the Board's approval, and consequently the final budgets were approved by the director of the Division of Reserve Bank Operations and Payment Systems under delegated authority.

² Reductions identified by Fiscal Service fall broadly into three categories – resources related to the Transforming Tax Collection (T2C) initiative, technology infrastructure costs in the Treasury Web Application Infrastructure (TWAI), and resources related to Treasury cloud hosting. Additionally, funding for the Technology Improvements to Treasury Auction (TITAN) initiative have been classified as reserved but not authorized. The identified expense pools are housed within four Reserve Banks (New York, Cleveland, St. Louis, and Kansas City) as well as FRIT.

FRIT, and the OEB is 19,898 ANP, an increase of 170 ANP, or 0.9 percent, from 2019 forecasted staff levels. In consultation with the chair of the Committee on Federal Reserve Bank Affairs, the director of the Division of Reserve Bank Operations and Payment Systems designated \$268.3 million of expenses associated with investments in FedNow, NextGen, FRIT Treasury Support Services, T2C, and TITAN for conditional approval. The Reserve Banks are required to provide further information about these projects and obtain approval by the director of the Division of Reserve Bank Operations and Payment Systems prior to committing funds.

2. The 2020 Reserve Bank single and multiyear capital budgets were approved in three categories:
 - a) significant capital expenditures – multiyear approval for significant capital expenditures (typically expenditures exceeding \$1 million) totaling \$798.9 million for 2020 and the remaining term of these projects
 - b) other capital expenditures – single-year capital expenditures, by asset class, for less significant expenditures (less than \$1 million per project) totaling \$97.5 million for 2020
 - c) conditional approval – the chair of the Committee on Federal Reserve Bank Affairs designated \$42.2 million in 2020 and \$210.6 million for 2020 and the remaining term of these projects for conditional approval.³ The Reserve Banks are required to provide further information about these projects and obtain approval by the director of the Division of Reserve Bank Operations and Payment Systems prior to committing funds.

The approval of these adjustments, and expectations regarding process should further changes to the work undertaken on behalf of the U.S. Department of the Treasury prove necessary, have been communicated to the Reserve Banks.

³ Generally, capital expenditures that are designated for conditional approval include certain building projects, District expenditures that substantially affect or influence future System direction or the manner in which significant services are performed, expenditures that may be inconsistent with System direction or vary from previously negotiated purchasing agreements, and local expenditures that duplicate national efforts.

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

DIVISION OF RESERVE BANK OPERATIONS AND PAYMENT SYSTEMS

2020 Federal Reserve Bank Budgets

ACTION

On December 18, 2019, the Board approved the 2020 Reserve Bank operating budgets totaling \$4,771.2 million, an increase of \$251.3 million, or 5.6 percent, from the 2019 forecasted expenses.⁴ The chair of the Committee on Federal Reserve Bank Affairs designated two components of the operating expense budgets for conditional approval:

- a) Because the U.S. Department of the Treasury's Bureau of the Fiscal Service (Fiscal Service) had not fully determined the level of funding for fiscal services provided by the Federal Reserve Banks in time for a sufficient review, the portion of the 2020 Banks' budgets associated with services to the Treasury was not considered final.⁵ Expenses associated with services provided to the Treasury (\$668.2 million) are therefore subject to additional review after the finalization of the relevant authorization from Fiscal Service. Board approval of Reserve Bank resources for services provided to the Treasury are required for material revisions, which represent an adjustment of one percent or more to the 2020 Reserve Bank operating budgets of \$4,771.2 million. For revisions that are not material, that is, which represent an adjustment of less than one percent of the 2020 Reserve Bank operating budgets of \$4,771.2 million, the Board delegated the approval of the resources for services provided to the Treasury to the director of the Division of Reserve Bank Operations and Payment Systems.
- b) Expenses associated with investments in FedNow, NextGen, and Transforming Tax Collections (T2C) (\$107.1 million) require additional review and approval by the director of the Division of Reserve Bank Operations and Payment Systems.⁶

⁴ These expenses include those budgeted by Federal Reserve Information Technology and the Office of Employee Benefits that are chargeable to the Reserve Banks. Expenses exclude assessments for the Board of Governors operating expenses, pension costs, the cost of currency, and the Consumer Financial Protection Bureau. The forecast is based on actual expenses incurred through September 2019 and a forecast for the remaining months of the year.

⁵ Fiscal Service provided its final guidance on December 9, 2019. However, the discussion section below does not incorporate this guidance, as there was insufficient time to digest this guidance prior to the Board's action. The accompanying addendum incorporates Fiscal Service's final guidance.

⁶ The Federal Reserve will develop a new round-the-clock real-time payment and settlement service, called the FedNowSM Service, to support faster payments in the United States. The Cash Product Office has developed a strategy to transition the current fleet of high-speed currency processing machines and the sensor suite from the Banknote Processing System platform to the future next-generation (NextGen) processing infrastructure. The T2C program will develop and implement a modern tax collection system for electronically collecting federal tax payments.

The Board also approved the Reserve Bank, Federal Reserve Information Technology (FRIT), and the Office of Employee Benefits (OEB) single and multiyear capital budgets in three categories.⁷

- a) Significant capital expenditures – multiyear approval for significant capital expenditures (typically expenditures exceeding \$1 million) totaling \$724.0 million for 2020 and the remaining term of these projects;
- b) other capital expenditures – single-year capital expenditures, by asset class, for less significant expenditures (less than \$1 million per project) totaling \$96.5 million for 2020; and
- c) conditional approval –
 - i. The chair of the Committee on Federal Reserve Bank Affairs designated \$32.9 million in capital expenditures in the 2020 budget for conditional approval.⁸ The Reserve Banks are required to provide further information about these projects and obtain approval from the director of the Division of Reserve Bank Operations and Payment Systems prior to committing funds.
 - ii. The chair of the Committee on Federal Reserve Bank Affairs designated a total of \$47.6 million in Treasury-related capital investments for conditional approval in 2020, to ensure alignment with the authorization from Fiscal Service. These investments are subject to additional review and approval by the director of the Division of Reserve Bank Operations and Payment Systems.

DISCUSSION

The Reserve Banks have prepared annual budgets for 2020 as part of their efforts to demonstrate appropriate stewardship and accountability. The budgets are formulated to ensure alignment with each Reserve Bank’s and the System’s strategic priorities, including

- contributing to the formulation of monetary policy and enhancing monetary policy implementation to become more effective, flexible, and resilient

⁷ See tables in the attachment for expense and capital amounts by Reserve Bank.

⁸ Generally, capital expenditures that are designated for conditional approval include certain building projects, District expenditures that substantially affect or influence future System direction or the manner in which significant services are performed, expenditures that may be inconsistent with System direction or vary from previously negotiated purchasing agreements, and local expenditures that duplicate national efforts.

- promoting financial stability through effective monitoring, analysis, and policy development
- promoting safety and soundness of financial institutions through effective supervision
- leading efforts to enhance the security, resiliency, functionality, and efficiency of services provided to financial institutions and the public

Each Reserve Bank's budget is reviewed by the Bank's senior leadership and its board of directors. Board staff analyzes the Banks' budget submissions both individually and in the aggregate.

TOTAL EXPENSE AND EMPLOYMENT SUMMARY

Reserve Bank Expenses and Staffing									
(dollars in millions)									
	2019	2019	19F to 19B		2020	20B to 19F		20B to 19B	
	Budget	Forecast	Amount	Percent	Budget	Amount	Percent	Amount	Percent
Central Bank Services	\$3,475.5	\$3,439.9	-\$35.7	-1.0%	\$3,600.7	\$160.8	4.7%	\$125.2	3.6%
Monetary Policy	527.6	521.4	-6.2	-1.2%	551.6	30.2	5.8%	24.0	4.6%
Open Market	229.1	224.2	-4.8	-2.1%	234.7	10.5	4.7%	5.6	2.5%
Public Programs	244.7	243.2	-1.6	-0.6%	261.4	18.2	7.5%	16.6	6.8%
Supervision	1,473.6	1,466.2	-7.5	-0.5%	1,518.0	51.8	3.5%	44.3	3.0%
Cash	704.6	695.5	-9.1	-1.3%	734.4	38.9	5.6%	29.8	4.2%
All Other Central Bank Services ¹	295.9	289.5	-6.5	-2.2%	300.7	11.2	3.9%	4.8	1.6%
Fee-Based Services²	441.2	455.9	14.7	3.3%	502.3	46.4	10.2%	61.0	13.8%
Total Expense (before Treasury Services)	\$3,916.8	\$3,895.8	-\$21.0	-0.5%	\$4,103.0	\$207.2	5.3%	\$186.2	4.8%
Treasury Services³	657.0	624.2	-32.8	-5.0%	668.2	44.1	7.1%	11.2	1.7%
Total Expense (including Treasury Services)	\$4,573.8	\$4,519.9	-\$53.8	-1.2%	\$4,771.2	\$251.3	5.6%	\$197.5	4.3%
<i>Total ANP⁴</i>	<i>19,856</i>	<i>19,728</i>	<i>-128</i>	<i>-0.6%</i>	<i>19,898</i>	<i>170</i>	<i>0.9%</i>	<i>42</i>	<i>0.2%</i>

Note: Here and in subsequent tables, components may not sum to totals and may not yield percentages shown because of rounding.

¹ Includes Special Safekeeping Services, Reserve Accounts and Risk Administration, Loans to Depository Institutions, and Services to Other Central Banks.

² Fee-based services include all expenses associated with the Priced Services, including the check, FedACH, Fedwire Funds and National Settlement, Fedwire Securities, and FedNow services.

³ Pending approval by Fiscal Service.

⁴ ANP is the average number of employees in terms of full-time positions for the period. For instance, a full-time employee who works one-half of the year counts as 0.5 ANP for that calendar year; two half-time employees who work the full year count as 1 ANP.

2020 Operating Expenses, Net of Revenue and Reimbursements

The 2020 operating budgets of the Reserve Banks, inclusive of Treasury services, total \$4,771.2 million, which is \$251.3 million, or 5.6 percent, higher than the 2019 forecast.

A quarter of Reserve Bank expenses in the 2020 budget are offset by either priced

	Change in Net Expenses				
	(dollars in millions)				
	2019	2019	2020	Percent Change	
	Budget	Forecast	Budget	19F - 19B	20B - 19F
Total Expense	\$4,573.8	\$4,519.9	\$4,771.2	-1.2%	5.6%
Less:					
Priced Services Revenue*	440.3	443.3	443.8	0.7%	0.1%
Reimbursable Claims	709.2	677.7	722.5	-4.4%	6.6%
Net Expenses	\$3,424.3	\$3,398.9	\$3,604.9	-0.7%	6.1%

*Full cost recovery is projected in the aggregate for priced services in 2020.

services revenue (9.3 percent) or reimbursable claims for services provided to the Treasury and other agencies (15.1 percent).⁹ Budgeted 2020 operating expenses, net of revenue and reimbursements, are expected to increase \$205.9 million, or 6.1 percent, from 2019 forecasted expenses.¹⁰ Budgeted 2020 priced services revenue is 0.1 percent higher than the 2019 forecasted level, reflecting a continual decline in check volume, offset by steadily increasing ACH volume. Reimbursable claims are expected to increase 6.6 percent in 2020, reflecting increased activity for new or expanded Treasury services, pending approval by Fiscal Service.

2019 Budget Performance

The total 2019 operating expense forecast for the Reserve Banks is \$4,519.9 million, which is \$53.8 million, or 1.2 percent, less than the approved 2019 budget of \$4,573.8 million. The forecasted average number of personnel (ANP) is 19,728, which is 128, or 0.6 percent, less than the 2019 budget, largely because of delays in hiring in the Treasury and IT functions, offset by resources attributable to the extension of the ACH modernization program into 2020, and investments in support of FedNow. The forecasted 2019 capital spending for the Reserve Banks, FRIT, and OEB is less than budget by \$98.7 million, or 20.4 percent, predominantly driven by plan changes, including timing and scope for building-related initiatives.

Significant Staffing (ANP) Changes 2019 Forecast to 2019 Budget	
2019 Budget	19,856
Fee-Based Services	26
Supervision	8
Monetary Policy	4
Other	(1)
Support and Overhead	(11)
Cash	(12)
Treasury	(51)
Information Technology	(92)
2019 Forecast	19,728

2020 Budgeted Operating Expenses

The 2020 operating budgets of the Reserve Banks, excluding services to the Treasury, total \$4,103.0 million, which is \$207.2 million, or 5.3 percent, higher than the 2019 forecast.

⁹ The Federal Reserve provides services to the U.S. government pursuant to the Federal Reserve Act, which stipulates that, when required by the Secretary of the Treasury, Reserve Banks will act as fiscal agents and depositories of the United States. Direct and indirect expenses associated with the services provided to the Treasury are reimbursable. Reimbursable claims include the expenses of fiscal agency and depository services provided to the U.S. Treasury, other government agencies, and other fiscal principals. Reimbursable claims are slightly higher than Treasury service expenses shown in the “Reserve Bank Expenses and Staffing” table because the reimbursable claims also include expenses associated with the government’s use of the Reserve Banks’ check, ACH, Fedwire Funds, and Fedwire Securities services; these expenses are included in the “Change in Net Expenses” table.

¹⁰ Reimbursable claims exclude annual assessments for the supervision of large financial companies pursuant to Regulation TT, which are not recognized as revenue or used to fund System expenses. A proposed revision to the assessment rule, with modification beginning in 2020 is out for public comment (that is, the methodology is not considered final). As a result, we are not able to calculate an estimate for the 2020 assessment at this time.

Supervision growth has moderated with a shift from implementing significant regulatory reforms of the post-crisis era to providing more-efficient oversight by focusing on areas of risk and allocating resources to the highest priorities. Increases in cash expenses are driven by the first phase of the next-generation currency-processing program (NextGen). Growth in monetary policy reflects increased resources dedicated to regional economic research, including studies on inflation and low- and moderate-income communities. Additionally, investments in fee-based services reflect the Federal Reserve System's commitment to modernize the nation's payment system and establish a safe and efficient foundation for the future (FedNow).

The 2020 operating budgets of the Reserve Banks, including services to the Treasury, total \$4,771.2 million, which is \$251.3 million, or 5.6 percent, higher than the 2019 forecast. Budgeted expenses for services to the Treasury total \$668.2 million, an increase of \$44.1 million, or 7.1 percent, from the 2019 forecast, primarily to support new and ongoing technology development, including Transforming Tax Collections (T2C), Pay.gov, Do Not Pay (DNP) analytics, and Treasury Retail Investment Manager (TRIM) initiatives.¹¹ Fiscal Service has not yet approved the level of funding for fiscal services reflected in the 2020 proposed Reserve Banks' budgets. Once there is final action by Fiscal Service on the level of approved funding, each Reserve Bank may need to update the 2020 budget to include the approved funding recommendations. Approval of the 2020 budgets is contingent on final approval of funding levels from Fiscal Service.¹²

The chair of the Committee on Federal Reserve Bank Affairs designated a portion of the 2020 operating expense budgets (\$107.1 million) associated with the FedNow, NextGen, and T2C initiatives for conditional approval, requiring additional review and approval by the director of the Division of Reserve Bank Operations and Payment Systems.

¹¹ Pay.gov is an application that allows the public to use the internet to authorize and initiate payments to federal agencies. DNP is an analytics tool which helps federal agencies detect and prevent improper payments made to vendors, grantees, loan recipients, and beneficiaries. TRIM is a multiyear development program to introduce new business functionality and infrastructure for the retail Treasury program.

¹² Board approval of Reserve Bank resources for services provided to the Treasury would be requested for material revisions, which represent an adjustment of one percent or more to the 2020 Reserve Bank operating budgets of \$4,771.2 million. For revisions that are not material, which represent an adjustment of less than one percent of the 2020 Reserve Bank operating budgets of \$4,771.2 million, the Board delegated the approval of the resources for services provided to the Treasury to the director of the Division of Reserve Bank Operations and Payment Systems.

2020 Personnel Expenses and Staffing

Total 2020 budgeted employment for the Reserve Banks, FRIT, and OEB is 19,898 ANP, an increase of 170 ANP, or 0.9 percent, from 2019 forecasted staff levels. National support functions plan to add resources to enhance product offerings and ensure the security and resiliency of FedLine, as well as support System strategic initiatives in procurement, finance, and human resource management.¹³ In IT, resource additions support application development projects and information security initiatives for Treasury. Approximately two thirds of the total IT increase is attributable to updated requirements and infrastructure modernization for TRIM, and sustainment of functionality for the Treasury Check Information System (TCIS).¹⁴ Additionally, IT resources are being added to develop cloud computing foundational services and infrastructure for the System. Local support and overhead functions also include plans to strengthen strategic planning and enterprise risk management. Further contributing to the growth are resources to support community development initiatives, regional economic research and outreach initiatives, FedNow, and the NextGen program.

Significant Staffing (ANP) Changes 2020 Budget to 2019 Forecast	
2019 Forecast	19,728
National Support	55
Information Technology	41
Public Programs	35
Local Support and Overhead	34
Monetary Policy	23
Fee-Based Services	10
Cash	9
Other	4
Supervision	(30)
2020 Budget (before Treasury Svcs)	19,911
Treasury Services	(12)
2020 Budget (including Treasury Svcs)	19,898

Increases are offset by reductions in the check function in recognition of operational efficiencies; in ACH following the planned implementation of the multiyear ACH Modernization initiative; and in supervision related to efficiency efforts, changes in supervisory responsibilities, and legislative changes.¹⁵

Reserve Bank officer and staff salaries and other personnel expenses for 2020 total \$3,504.5 million, an increase of \$162.2 million, or 4.9 percent, from 2019 forecasted expenses.

¹³ Enhancements to FedLine reflect a multiyear transformational effort focused on evolving the FedLine network, authentication, and hosting infrastructure to meet customer, industry, and FRS needs.

¹⁴ Staffing for services to the Treasury and for Treasury-related IT initiatives are pending approval from Fiscal Service. TCIS records and reconciles the worldwide issuance and payment of U.S. Treasury Checks. TCIS also allows end users to query the Payments, Claims & Enhanced Reconciliation system for claim status on Automated Clearing House payments.

¹⁵ The ACH Modernization program is a multiyear technology initiative designed to replace the Federal Reserve's current core ACH processing system with a new, modern technology solution.

The increase reflects the expenses associated with additional staff, salary administration (i.e., merit increases, equity adjustments, and promotions), variable pay, and retirement and other benefit costs.

2020 Capital Budgets

The 2020 capital budgets submitted by the Reserve Banks, FRIT, and OEB total \$530.9 million. The 2020 capital budget has increased \$146.2 million, or 38 percent, from the 2019 forecasted levels of \$384.7 million,

largely reflecting ongoing multiyear building and IT strategic initiatives.

Initiatives in the 2020 capital budget support major workspace renovations, address aging building infrastructure in several Reserve Banks, improve IT infrastructure, and provide application upgrades and releases. The chair of the Committee on Federal Reserve Bank Affairs designated a portion of the projects comprising the 2020

capital budgets (\$80.6 million) for conditional approval, requiring additional review and approval by the director of the Division of Reserve Bank Operations and Payment Systems. The remainder of the budgets was approved in two categories: (1) approval for significant capital expenditures for 2020 and the remaining term of these projects (\$724.0 million) and (2) single-year approval for all other capital expenditures by asset class (\$96.5 million).

Capital expenditures designated for conditional approval

The chair of the Committee on Federal Reserve Bank Affairs designated for conditional approval budgeted 2020 capital expenditures of \$80.6 million and total multiyear budgeted expenditures of \$286.5 million for 2020 and future years. The expenditures designated for conditional approval include large-scale building projects to renovate office space and update building infrastructure. Technology projects include support for services performed on behalf of Treasury, upgrades to existing cash services' applications, and Fedwire and FedLine initiatives.

	2020 Capital	2021 and Beyond Capital	Total
Capital Expenditures Designated for Conditional Approval¹	\$80.6	\$206.0	\$286.5
Projects previously designated	18.6	127.4	146.0
New conditionally approved projects	14.3	23.0	37.3
Treasury Initiatives ²	47.6	55.5	103.2
Significant Capital Expenditures	353.9	370.1	724.0
Other Capital Expenditures	96.5		96.5
Art	0.3		0.3
Building	19.1		19.1
Building, Machinery, & Equipment	14.8		14.8
Equipment	29.7		29.7
Furniture, Furnishings, & Fixtures	7.3		7.3
Land and Other Real Estate	1.5		1.5
Leasehold Improvements	0.0		0.0
Software	23.8		23.8
Total Capital Budget	\$530.9	\$576.1	\$1,107.0

¹ Previously designated projects may include amounts that have already been approved by the Director of RBOPS that are not reflected on this chart.

² Pending approval by Fiscal Service.

In addition, the chair of the Committee on Federal Reserve Bank Affairs designated for conditional approval the expense portion of FedNow, NextGen, and T2C as well as all Treasury-related investments, pending approval from Fiscal Service.

Significant capital expenditures

Significant capital expenditures (typically expenditures exceeding \$1 million) that have not been designated for conditional approval include total multiyear budgeted expenditures of \$724.0 million for 2020 and future years, of which the single-year 2020 budgeted expenditures are \$353.9 million. This category includes building expenditures for office space renovations, mechanical and electrical infrastructure upgrades, building automation, and security enhancements. IT projects include ongoing IT infrastructure investments, initiatives that enable better access to data and enhance cyber-security and cyber-resiliency, and applications to support fee-based services, supervision, cash, and open market operations.

Other capital expenditures

The 2020 capital budgets include \$96.5 million for other capital expenditures that are individually less than \$1 million per project, such as building maintenance expenditures, scheduled software and equipment upgrades, and equipment and furniture replacements.

Five-Year Trend in Reserve Bank Expenses

Total expenses for the Reserve Banks have grown an average of 4.2 percent annually from 2015 actual through 2020 budget.

Total Expenses of the Federal Reserve Banks, by Functional Area							
<small>(dollars in millions)</small>							
	2015	2016	2017	2018	2019	2020	CAGR*
	Actual	Actual	Actual	Actual	Forecast	Budget	2015-2020
Monetary and Economic Policy	\$631.9	\$655.1	\$693.4	\$720.4	\$745.6	\$786.3	4.5%
Services to U.S. Treasury and Gov't Agencies	550.5	569.9	597.6	608.3	624.2	668.2	4.0%
Services to Financial Institutions and the Public	1,050.9	1,088.8	1,127.0	1,199.6	1,228.1	1,296.4	4.3%
Supervision	1,252.1	1,309.9	1,366.0	1,424.2	1,466.2	1,518.0	3.9%
Fee-Based Services to Financial Institutions	389.9	408.3	425.0	441.5	455.9	502.3	5.2%
Total	\$3,875.3	\$4,032.1	\$4,209.0	\$4,394.1	\$4,519.9	\$4,771.2	4.2%

*Compound Annual Growth Rate

Trends in Central Bank Service Expense

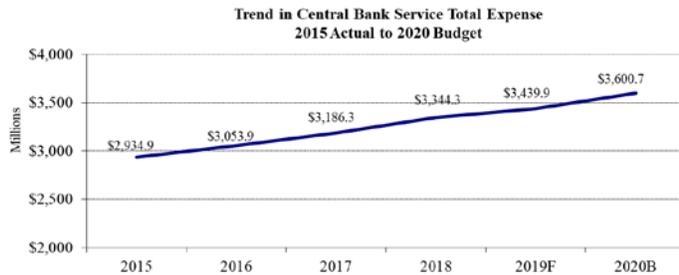
Expenses for central bank functions, which comprise monetary and economic policy, open market operations, services to financial institutions and the public, and supervision, have grown an average of 4.2 percent annually over the past five years.

Monetary and economic policy has experienced the largest rate of growth, with an average of 4.5 percent annual expense growth over the past five years

and an increase of 76 ANP since 2015. This growth is largely driven by increases at the Federal Reserve Bank of New York, reflecting a focus on improving operational resiliency and technology enhancements to better support the management, analysis, and execution of open market operations. Additional growth in monetary policy expenses reflects increased resources dedicated to regional economic research.

Expenses in the cash area, which is a component of services to financial institutions and the public, have increased an average of 4.9 percent annually, reflecting the multiyear development and implementation of a modernized cash-processing and inventory-tracking application and the onset of funding for the NextGen currency-processing program.

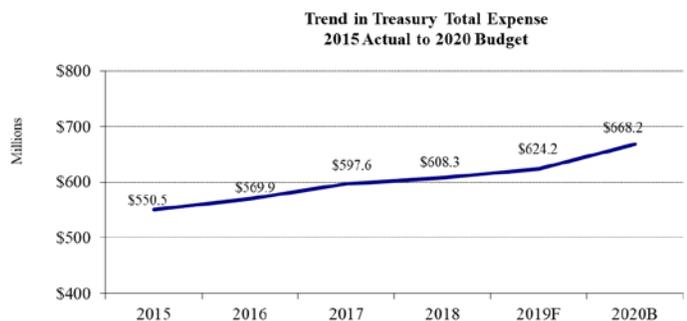
Supervision reflects an average growth of 3.9 percent annually maintained by efforts to focus on efficiencies and trade-off decisions to fund strategic priorities.



Trends in Treasury Services Expense

Treasury services expenses have increased an average of 4.0 percent annually from 2015 to 2020. Expenses have increased to meet the Treasury's evolving needs, including the modernization of the Treasury's

collection and payment services, the addition of new Treasury applications to the Treasury Web Applications Infrastructure (TWAII), and technology development for the Treasury Auction program (TITAN) and the DNP



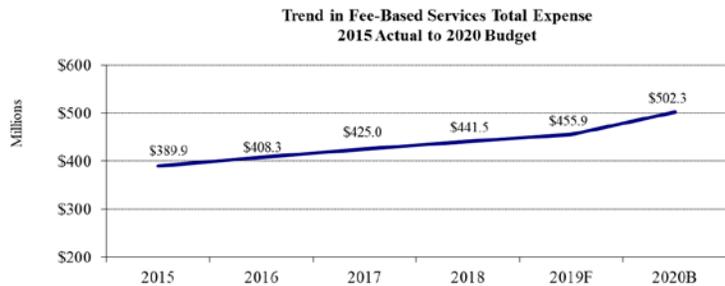
analytics tool. Growth in recent years is largely attributable to the Stored Value Card (SVC) One Card initiative, expanding Treasury’s collection services, and the development of TRIM, which will allow Treasury to modernize the TreasuryDirect.gov infrastructure and issue a new marketable security.¹⁶ A portion of this growth has been offset by Reserve Bank efficiency initiatives, the consolidation of various Fiscal Agent support functions, and program changes initiated by the Treasury.

Trends in Fee-Based Services Expense

Fee-based services expenses have increased an average of 5.2 percent annually since 2015. Expense increases are primarily for investments associated with multiyear technology initiatives to modernize processing platforms for Fedwire and ACH.

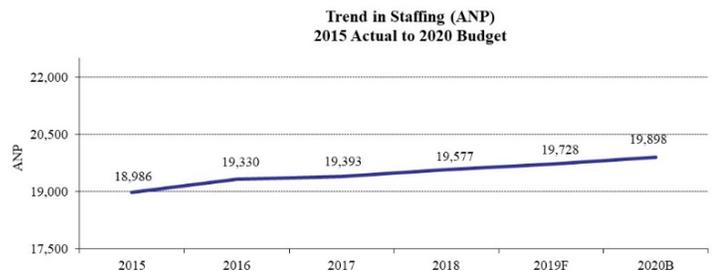
These investments are expected to enhance efficiency, the overall quality of operations, and the Reserve Banks’ ability to offer additional

services to depository institutions. Growth in 2020 includes initial investments for the FedNow initiative. Partially offsetting these investments are check services expenses, which have declined an average of 3.1 percent annually since 2015 because of the decline of paper check volume and the efficiencies associated with electronic check processing.



Trends in Staffing

Total staffing levels have increased an average of 0.9 percent annually since 2015. The primary driver is support of ongoing operations and new initiatives for the Treasury. Growth in IT resources support information security efforts, large application-development projects, and end-user services. Increases in fee-based services are attributable to staffing



¹⁶ The SVC program comprises three military cash-management programs: EagleCash, EZpay, and Navy Cash. These programs provide electronic payment methods for goods and services on military bases and Navy ships, both domestic and overseas, to reduce costs and increase convenience for the military and service members.

additions for FedNow. Monetary policy areas have grown modestly to support financial stability monitoring, operational activities, and regional economic research. These increases are offset, in part, by relatively stable staffing in the cash and supervision functions as increases to support strategic initiatives are counterbalanced by operational efficiencies and decreased staffing in other areas of those functions.

Trends in Capital

Total capital spending has increased at an average of 10.2 percent annually since 2015 and has included funding for multiyear building projects and large-scale automation projects.

These initiatives include

modernizing the cash-processing and inventory-tracking

infrastructure, automated

clearinghouse processing, Fedwire

initiatives, and Treasury

applications. In 2020, major

building renovation and infrastructure projects in several Reserve Banks will ramp up, while

concurrently the Federal Reserve System will continue to invest in automation initiatives and IT infrastructure.



Statistical Supplement

Table A	Total Expenses of the Federal Reserve Banks, by District
Table B	Total Employment of the Federal Reserve Banks, by District
Table C	Total Employment of the Federal Reserve Banks, by Functional Area
Table D	Budgeted Changes to the Cash Compensation Components of the Federal Reserve Banks, Officers and Staff, by District
Table E	Capital Outlays of the Federal Reserve Banks, by District

Notes: In the following tables, Reserve Bank expenses include those budgeted by FRIT and OEB that are chargeable to the Reserve Banks.

TOTAL EXPENSES OF THE FEDERAL RESERVE BANKS
by District, 2019 and 2020
(Dollars in Thousands)

District	2019 Budget	2019 Forecast	2020 Budget	Variance		
				19F to 19B	20B to 19F	20B to 19B
Boston	231,572	227,745	239,629	-1.7%	5.2%	3.5%
New York	1,043,452	1,026,913	1,076,874	-1.6%	4.9%	3.2%
Philadelphia	194,838	193,471	199,364	-0.7%	3.0%	2.3%
Cleveland	209,374	209,162	230,228	-0.1%	10.1%	10.0%
Richmond	503,568	489,511	517,673	-2.8%	5.8%	2.8%
Atlanta	415,457	413,448	414,136	-0.5%	0.2%	-0.3%
Chicago	396,116	395,037	423,694	-0.3%	7.3%	7.0%
St. Louis	431,162	416,827	437,324	-3.3%	4.9%	1.4%
Minneapolis	179,959	179,671	183,092	-0.2%	1.9%	1.7%
Kansas City	332,707	334,909	364,429	0.7%	8.8%	9.5%
Dallas	239,079	239,063	243,322	0.0%	1.8%	1.8%
San Francisco	396,470	394,176	441,444	-0.6%	12.0%	11.3%
Total	4,573,752	4,519,933	4,771,209	-1.2%	5.6%	4.3%

TOTAL EMPLOYMENT OF THE FEDERAL RESERVE BANKS
by District, 2019 and 2020
(Average Number of Personnel)

District	2019 Budget	2019 Forecast	2020 Budget	Variance		
				19F to 19B	20B to 19F	20B to 19B
Boston	1,037	1,013	1,055	-24	42	18
New York	3,232	3,223	3,223	-9	0	-9
Philadelphia	859	879	864	21	-15	6
Cleveland	988	990	1,030	3	40	42
Richmond	1,481	1,455	1,460	-26	4	-22
Atlanta	1,737	1,753	1,730	16	-23	-7
Chicago	1,599	1,574	1,606	-24	32	8
St. Louis	1,435	1,413	1,415	-22	2	-20
Minneapolis	1,060	1,033	1,054	-27	22	-6
Kansas City	2,006	2,033	2,064	27	32	59
Dallas	1,278	1,290	1,278	12	-12	0
San Francisco	1,765	1,730	1,762	-35	32	-3
Subtotal	18,477	18,387	18,542	-90	156	66
FRIT	1,321	1,284	1,295	-37	11	-26
OEB	59	58	61	-1	3	3
Total	19,856	19,728	19,898	-128	170	42

TOTAL EMPLOYMENT OF THE FEDERAL RESERVE BANKS¹
by Functional Area
(Average Number of Personnel)

	2015	2016	2017	2018	2019F	2020B	CAGR
							2015-2020
Monetary and Economic Policy	1,262	1,284	1,296	1,287	1,323	1,338	1.2%
Services to U.S. Treasury and Gov't Agencies	1,101	1,161	1,178	1,238	1,268	1,256	2.7%
Services to Financial Institutions and the Public	2,618	2,568	2,550	2,600	2,643	2,700	0.6%
Supervision	4,006	4,140	4,143	4,124	4,110	4,080	0.4%
Fee-Based Services to Financial Institutions	679	720	753	761	742	753	2.1%
Local Support and Overhead	6,727	6,820	6,822	6,896	6,967	7,034	0.9%
Nationally Provided Support	1,317	1,374	1,349	662	678	730	-11.1%
Centralized Service Providers	1,275	1,262	1,302	2,010	1,997	2,009	9.5%
Total	18,986	19,330	19,393	19,577	19,728	19,898	0.9%

¹Includes ANP at FRIT and OEB.

Nationally Provided Support: Support services performed on behalf of multiple Districts under a regionalized or centralized function. In this table, select nationally provided support ANP have been included in the associated functional areas.

Centralized Service Providers: Support services provided by FRIT and OEB. National IT Operations (NITOs) are IT activities performed on behalf of the System under a regionalized or centralized function. Beginning in 2018, NITO ANP are recategorized as Centralized Service Providers to align with the corresponding cost accounting policy change.

BUDGETED CHANGES TO CASH COMPENSATION PROGRAMS OF THE FEDERAL RESERVE BANKS
Officers and Staff by District, 2020
(Dollars in Thousands)

District	Total 12/31/19 Salary Liability (a)	Additions to Salary Base				Incremental Variable Pay (e)	Total	
		Merit (b)	Equity Adjustments (c)	Promotions and Reclasses (d)	Percentage Increase to Total 12/31/19 Salary Liability (b + c + d) / (a)		Dollars (b + c + d + e)	Percentage Increase to Total 12/31/19 Salary Liability (b + c + d + e) / (a)
Boston	134,920	4,048	675	1,349	4.5%	1,761	7,833	5.8%
New York	490,833	14,725	2,454	4,170	4.3%	2,737	24,086	4.9%
Philadelphia	99,489	2,980	497	985	4.5%	321	4,783	4.8%
Cleveland	104,283	3,129	261	1,304	4.5%	906	5,599	5.4%
Richmond	154,587	4,789	580	1,369	4.4%	555	7,292	4.7%
Atlanta	183,152	5,769	198	2,274	4.5%	585	8,827	4.8%
Chicago	192,293	5,769	961	1,923	4.5%	2,142	10,795	5.6%
St. Louis	151,260	4,538	756	1,513	4.5%	337	7,143	4.7%
Minneapolis	101,965	3,059	510	1,020	4.5%	696	5,284	5.2%
Kansas City	189,198	5,676	946	1,892	4.5%	1,042	9,556	5.1%
Dallas	129,456	3,884	556	1,295	4.4%	541	6,276	4.8%
San Francisco	218,631	6,346	1,100	2,179	4.4%	640	10,265	4.7%
FRIT	169,246	5,077	846	1,692	4.5%	108	7,724	4.6%
OEB	10,192	306	51	102	4.5%	107	565	5.5%
Total	2,329,507	70,094	10,392	23,066	4.4%	12,477	116,028	5.0%

The table above shows the cash compensation components that add to base salary (merit, equity, and promotion) and the 2020 incremental increase in variable pay expense compared to those estimated for 2019.

December 31, 2019 Salary Liability: the annualized salary expense based on the salaries in effect on December 31.

Merit: the amount of 2020 budgeted salary expense that reflects salary increases for individuals based on performance.

Equity Adjustments: the amount of 2020 budgeted salary expense to bring individual salaries to the minimum of a salary range or to better align salaries based on internal or external compensation pressures.

Promotions: the amount of 2020 budgeted salary expense that reflects salary increases for individuals as a result of promotions resulting from a significant increase in job responsibilities.

Variable Pay: The change in 2020 budgeted incentive payments (payment for the achievement of pre-determined goals) and cash awards (awards in recognition of exceptional achievements) compared to the 2019 estimate.

CAPITAL OUTLAYS OF THE FEDERAL RESERVE BANKS
by District, 2019 and 2020
(Dollars in Thousands)

District	2019 Budget	2019 Forecast	2020 Budget	Variance		
				19F to 19B	20B to 19F	20B to 19B
Boston	15,093	12,599	21,680	-16.5%	72.1%	43.6%
New York	125,643	107,042	87,570	-14.8%	-18.2%	-30.3%
Philadelphia	36,178	21,516	75,346	-40.5%	250.2%	108.3%
Cleveland	23,080	21,150	25,852	-8.4%	22.2%	12.0%
Richmond	15,187	13,476	20,788	-11.3%	54.3%	36.9%
Atlanta	23,163	18,799	26,861	-18.8%	42.9%	16.0%
Chicago	26,690	26,743	21,411	0.2%	-19.9%	-19.8%
St. Louis	6,664	5,058	15,201	-24.1%	200.5%	128.1%
Minneapolis	25,963	6,869	12,585	-73.5%	83.2%	-51.5%
Kansas City	32,911	28,864	44,648	-12.3%	54.7%	35.7%
Dallas	24,166	16,308	27,033	-32.5%	65.8%	11.9%
San Francisco	53,134	38,028	63,772	-28.4%	67.7%	20.0%
Subtotal	407,873	316,453	442,746	-22.4%	39.9%	8.5%
FRIT	75,257	67,720	84,799	-10.0%	25.2%	12.7%
OEB	230	530	3,392	130.4%	540.0%	1374.8%
Total	483,360	384,703	530,936	-20.4%	38.0%	9.8%