



## Estimates of the Cost of Federal Credit Programs in 2021

### Summary

The federal government supports some private activities by offering credit assistance to individuals and businesses. That assistance is provided through direct loans and guarantees of loans made by private financial institutions. In this report, the Congressional Budget Office estimates the lifetime costs of new loans and loan guarantees that are projected to be issued in 2021. The report shows two kinds of estimates: those that were created by following procedures currently used in the federal budget, as prescribed by the Federal Credit Reform Act of 1990 (FCRA); and those that account for the market value of the government's obligations, which are called fair-value estimates. Most of the FCRA estimates were produced by other federal agencies, although CBO used FCRA procedures to estimate the budgetary effects of the largest federal credit programs. The fair-value estimates were produced by CBO.

Using FCRA procedures, CBO estimates that new loans and loan guarantees issued in 2021 would result in *savings* of \$41.8 billion. But using the fair-value approach, CBO estimates that those loans and guarantees would have a lifetime *cost* of \$46.8 billion. More than three-quarters of the difference between those amounts is attributable to three sources:

- The guarantees that Fannie Mae and Freddie Mac are projected to make in 2021, analyzed on a FCRA basis, would save the federal government \$28.5 billion. Under fair-value accounting, however, the guarantees would cost \$1.1 billion.
- The Department of Education's student loan programs are projected to save \$3.2 billion on a FCRA basis but to cost \$16.9 billion on a fair-value basis.
- The Department of Housing and Urban Development's (HUD's) loan and loan guarantee programs are projected to save \$10.5 billion on a FCRA basis but to cost \$7.4 billion on a fair-value basis.

### Federal Credit Programs

For this report, CBO analyzed the 89 programs through which the federal government provides credit assistance. The total amount of federal credit assistance projected for 2021 is \$1.5 trillion, consisting of new direct loans that total \$154 billion and new loan guarantees that cover \$1.4 trillion in loans. Just a few programs are projected to provide about 90 percent of total federal credit assistance—specifically, the programs offering mortgage guarantees and student loans. The largest federal credit programs by far are the guarantees of mortgage-backed

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Notes: Unless this report indicates otherwise, all years referred to are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. Numbers in the text, table, and figure may not add up to totals because of rounding. For the most part, this report uses the names for departments, agencies, and programs that are given in the Office of Management and Budget's Federal Credit Supplement, which is available at [www.whitehouse.gov/omb/supplemental-materials](http://www.whitehouse.gov/omb/supplemental-materials).

securities provided by Fannie Mae and Freddie Mac. In combination, those government-sponsored enterprises (GSEs) are projected to provide \$852 billion in new guarantees in 2021.

Discretionary programs, which are funded through annual appropriation acts, accounted for 71 of the 89 programs analyzed and 26 percent of the projected dollar value of loans and guarantees. The largest discretionary programs are the mortgage programs administered by the Federal Housing Administration (FHA) and the Department of Agriculture's Rural Housing Service (RHS), the transportation loans provided by the Federal Highway Administration, the small-business loans provided by the Small Business Administration (SBA), and the long-term guarantees provided by the Export-Import Bank.

The remaining 18 programs are mandatory programs; that is, lawmakers determine spending for them by setting eligibility rules and other criteria in authorizing legislation, rather than by appropriating specific amounts each year. The largest of the mandatory programs analyzed are Fannie Mae's and Freddie Mac's guarantees of mortgage-backed securities, the Department of Education's student loan programs, and the mortgage guarantee program administered by the Department of Veterans Affairs (VA).

To compute the estimates in this analysis, CBO used its own projections of the volume of loans and cash flows for the largest credit programs.<sup>1</sup> Specifically, the agency used its own estimates for Fannie Mae and Freddie Mac, the FHA's single-family mortgage and reverse mortgage guarantee programs, VA's mortgage guarantee program, and the Department of Education's student loan programs. Those estimates are a routine part of CBO's baseline budget projections because they have the potential for significant budgetary impact.<sup>2</sup> For smaller federal credit programs, CBO relied on other federal agencies'

projections of cash flows when it computed estimates for this analysis. (CBO usually takes that same approach when preparing its baseline budget projections, analyzing the President's budget proposals, or analyzing other spending proposals.)<sup>3</sup>

### The FCRA and Fair-Value Approaches

In the analysis underlying this report, CBO estimated the lifetime cost of federal credit programs using two approaches. The first follows the procedures prescribed by FCRA, which the Office of Management and Budget currently uses for most credit programs in the federal budget. The second, called the fair-value approach, estimates the market value of the government's obligations by accounting for market risk. Market risk is the component of financial risk that remains even after investors have diversified their portfolios as much as possible; it arises from shifts in macroeconomic conditions, such as productivity and employment, and from changes in expectations about future macroeconomic conditions.<sup>4</sup> Investors demand additional compensation for taking on market risk—additional, that is, in comparison with the expected return from Treasury securities, which are regarded as risk free. That additional compensation is called the risk premium.

A common method for estimating the fair value of a direct loan or loan guarantee is to discount the projected cash flows to the present by using market-based discount rates. The present value expresses the flows of current and future income or payments in terms of a single number. That number, in turn, depends on the discount rate, or rate of interest, that is used to translate future cash flows into current dollars. For FCRA estimates, the discount rates used are the projected yields on Treasury securities of corresponding maturities. The fair-value estimates employ discounting methods that are consistent with the way the loan or loan guarantee would be priced in a competitive market. The difference between the FCRA and fair-value discount rates can be interpreted as a risk premium. In general, the cost of a direct loan or a loan guarantee reported in the federal budget under FCRA procedures would be lower than the fair-value cost that

1. The projections of loan volume and cash flow in this report reflect legislation, administrative actions, and regulatory changes through March 6, 2020. They are based on the economic forecast that the Congressional Budget Office completed on January 7, 2020, and do not account for changes to the nation's economic outlook and fiscal situation arising from the recent and rapidly evolving public health emergency related to the novel coronavirus.
2. Those baseline projections, which CBO usually issues several times each year, incorporate the assumption that current laws generally remain unchanged.

3. For discretionary programs, the projections of cash flows by other agencies reflect the Administration's proposed funding for 2021. In total, they are similar to estimates that CBO would prepare on the basis of its baseline projections.

4. For further discussion, see Congressional Budget Office, *How CBO Produces Fair-Value Estimates of the Cost of Federal Credit Programs: A Primer* (July 2018), [www.cbo.gov/publication/53886](http://www.cbo.gov/publication/53886).

private institutions would assign to similar credit assistance on the basis of market prices.

Both approaches are examples of accrual accounting—which, unlike cash accounting, records the estimated present value of credit programs' expenses and related receipts when the legal obligation is first made rather than when subsequent cash transactions occur.<sup>5</sup> In CBO's view, fair-value estimates are a more comprehensive measure than FCRA estimates of the costs of federal credit programs and therefore help lawmakers better understand the advantages and drawbacks of various policies.

CBO has nevertheless included FCRA estimates in this analysis. Because the cash flows underlying FCRA and fair-value estimates are the same, a comparison of the two kinds of estimates highlights the effect of market risk.

### Projected Costs of Federal Credit Programs Under Both Approaches

Using FCRA procedures, CBO estimates that \$1.5 trillion in new loans and loan guarantees issued by the federal government in 2021 would generate budgetary savings of \$41.8 billion over their lifetime—thereby reducing the deficit (see Table 1). Using fair-value procedures, CBO estimates that those loans and guarantees would have a lifetime cost of \$46.8 billion—thereby adding to the deficit.<sup>6</sup>

For every program that CBO analyzed, the projected fair-value subsidy rate is higher than the projected FCRA subsidy rate—on average, about 5.7 percentage

points higher. (The subsidy rate is the cost divided by the amount disbursed; a positive subsidy rate indicates a government subsidy and therefore costs to the government, and a negative rate indicates savings.)<sup>7</sup> Specifically, the average subsidy rate, weighted by the amount of the programs' credit, is -2.7 percent on a FCRA basis but 3.0 percent on a fair-value basis.

However, the amount by which fair-value subsidy rates exceed FCRA subsidy rates varies considerably. The largest difference, about 21 percentage points, is for student loans, reflecting the high degree of market risk in that type of lending. For lending programs subject to less market risk, the difference is much smaller—for instance, 4.1 percentage points for housing and real estate loans.

Nearly a quarter of the difference between the overall savings calculated under the FCRA approach and the costs calculated under the fair-value approach derives from the valuation of student loans. Under FCRA procedures, those loans generate larger budgetary savings per dollar lent than most other federal credit assistance does; under the fair-value approach, most of those savings become costs.

Although most programs that have a negative subsidy rate under FCRA procedures have a positive subsidy rate under the fair-value approach, some subsidy rates are estimated to be negative under the fair-value approach. That is the case for the Department of Education's PLUS loan program for parents, the Export-Import Bank's long-term guarantees, and several smaller programs. In principle, such programs should be rare, because a negative fair-value subsidy rate should represent a profitable opportunity for a private financial institution to provide credit on the same or better terms. But negative fair-value subsidy rates could arise, for instance, if there were barriers to entry—such as the need for private lenders to incur large fixed costs to enter a particular

5. For further discussion, see Congressional Budget Office, *Cash and Accrual Measures in Federal Budgeting* (January 2018), [www.cbo.gov/publication/53461](http://www.cbo.gov/publication/53461).

6. CBO considers Fannie Mae and Freddie Mac, which have been in federal conservatorship since September 2008, to be federally owned and controlled. Consequently, when preparing its baseline budget projections, CBO treats their loan guarantees as federal commitments and accounts for them on a fair-value basis. In contrast, the Office of Management and Budget (OMB) treats those entities as private companies, and in the federal budget, it generally displays the cash transactions between them and the Treasury. See Congressional Budget Office, *Accounting for Fannie Mae and Freddie Mac in the Federal Budget* (September 2018), [www.cbo.gov/publication/54475](http://www.cbo.gov/publication/54475). For other credit programs analyzed in this report, both CBO and OMB account for budgetary costs on the basis of what is prescribed by the Federal Credit Reform Act of 1990 (FCRA).

7. The budgetary cost is the product of the subsidy rate and the size of the commitment or obligation, so programs with high subsidy rates are not necessarily those with the largest total budgetary impact. For example, under FCRA, the Federal Emergency Management Agency's Community Disaster Loan Program has the highest subsidy rate (76.3 percent) and a budgetary cost of only \$36 million. And the Department of Education's subsidized Stafford loan program—which is projected to cost \$1.8 billion, more than any other credit program—has a much smaller subsidy rate of 9.2 percent.

Table 1.

**Projected Costs or Savings From Federal Credit Programs in 2021**

	Number of Programs	Obligations or Commitments (Billions of dollars)	Subsidy Rate (Percent)		Subsidy (Billions of dollars)	
			FCRA Estimate	Fair-Value Estimate	FCRA Estimate	Fair-Value Estimate
<b>By Lending Category</b>						
Housing and Real Estate Loans	26	1,304	-2.9	1.2	-37.6	15.6
Commercial Loans	54	138	-0.8	10.1	-1.1	14.0
Student Loans	6	96	-3.3	17.6	-3.2	16.9
Consumer Loans	3	1	9.0	25.3	0.1	0.3
<b>All Lending Categories</b>	<b>89</b>	<b>1,539</b>	<b>-2.7</b>	<b>3.0</b>	<b>-41.8</b>	<b>46.8</b>
<b>By Department or Agency</b>						
Fannie Mae and Freddie Mac	1	852	-3.3	0.1	-28.5	1.1
Housing and Urban Development	16	250	-4.2	3.0	-10.5	7.4
Veterans Affairs	5	181	0.9	3.4	1.7	6.2
Education	7	96	-3.3	17.6	-3.2	16.9
Agriculture	30	45	-0.6	3.8	-0.3	1.7
Small Business Administration	7	44	0.2	10.8	0.1	4.7
Transportation	2	33	0.9	23.7	0.3	7.7
Export-Import Bank	4	20	-5.2	-1.5	-1.0	-0.3
International Assistance	10	15	-2.8	4.3	-0.4	0.6
Other <sup>a</sup>	7	2	2.0	21.9	*	0.5
<b>All Departments and Agencies</b>	<b>89</b>	<b>1,539</b>	<b>-2.7</b>	<b>3.0</b>	<b>-41.8</b>	<b>46.8</b>

Sources: Congressional Budget Office; Office of Management and Budget.

The subsidy rate is the cost divided by the amount disbursed; a positive subsidy rate indicates a government subsidy and therefore costs to the government, and a negative rate indicates savings.

For discretionary programs, the projections of cash flows by other agencies reflect the Administration's proposed funding for 2021. In total, they are similar to estimates that CBO would prepare on the basis of its baseline projections.

Most of the obligations, commitments, and FCRA estimates shown are from the Office of Management and Budget. The exceptions are student loans, which are administered by the Department of Education, and programs related to single-family mortgages administered by Fannie Mae, Freddie Mac, the Department of Veterans Affairs (VA), and the Federal Housing Administration (FHA) within the Department of Housing and Urban Development; those estimates were made by CBO. These budget projections reflect legislation, administrative actions, and regulatory changes through March 6, 2020. They are based on the economic forecast that CBO completed on January 7, 2020, and do not account for changes to the nation's economic outlook and fiscal situation arising from the recent and rapidly evolving public health emergency related to the novel coronavirus.

The table excludes guarantees provided through Ginnie Mae and the secondary market guarantees provided by the Small Business Administration (SBA) for its estimate of total credit assistance because those guarantees are incremental guarantees of loans already included in the totals for loans guaranteed by the FHA, the SBA, and VA.

The table excludes consolidation loans administered by the Department of Education.

FCRA = Federal Credit Reform Act of 1990; \* = between -\$500 million and \$500 million.

a. Includes the Departments of Commerce, Health and Human Services, Homeland Security, State, and the Treasury, as well as the Environmental Protection Agency.

credit market—or if the profit opportunity was expected to be short-lived. Furthermore, in some cases, such as for student loans, the federal government has tools to collect from delinquent borrowers that private lenders do not have, giving federal programs an advantage over

private-sector competitors. A negative fair-value subsidy rate could also stem from particular factors in CBO's calculations, such as an underestimate of the appropriate risk premium because of a lack of good market proxies

or an understatement of true cost because administrative costs are not included in the calculation.

On a FCRA basis, discretionary programs (considered together) are projected to save \$11.8 billion and mandatory programs \$29.9 billion. On a fair-value basis, discretionary programs are projected to cost \$22.3 billion and mandatory programs \$24.5 billion. Of the 71 discretionary credit programs, 47 have a subsidy rate that is estimated to be zero or negative on a FCRA basis in 2021. Of those, CBO estimates that 35 programs have costs (that is, positive subsidy rates) under the fair-value approach.<sup>8</sup>

### Projected Costs of Particular Programs Under Both Approaches

For ease of reference, CBO has divided the loans and loans guarantees that it analyzed into four categories: housing and real estate loans, student loans, commercial loans, and consumer loans.

#### Housing and Real Estate Loans

In CBO's projections, most of the federal government's credit assistance in 2021 is provided by Fannie Mae and Freddie Mac (\$852 billion). Those GSEs primarily buy mortgages from lenders and pool the mortgages to create mortgage-backed securities, which they guarantee against default and sell to investors. Because the GSEs are currently in federal conservatorship, CBO regards those loan guarantees as governmental activities; the Administration does not. Other housing and real estate programs include mortgage guarantees provided by HUD (\$250 billion), VA (\$181 billion), and RHS (\$20 billion). Of the \$250 billion of credit assistance provided by HUD, \$230 billion is attributable to guarantees of single-family mortgages provided through the FHA, which is located within that department.

All told, the federal government's credit assistance in the form of housing and real estate loans is projected to equal \$1.3 trillion in 2021, accounting for 85 percent of the \$1.5 trillion total. If the GSEs are excluded from that calculation, federal credit assistance in this category is projected to equal \$452 billion in 2021, accounting for 66 percent of a smaller total (\$687 billion).

The federal government also provides guarantees through the Government National Mortgage Association (Ginnie

Mae, which is part of HUD) for securities that are themselves backed by federally guaranteed mortgages, including mortgages guaranteed by the FHA and VA. CBO projects that guarantees provided through Ginnie Mae would amount to \$424 billion in 2021. However, CBO has excluded them from its estimate of total credit assistance because they are incremental guarantees on loans already included in the totals for loans guaranteed by the FHA, VA, and other federal housing guarantors. CBO estimates that the fair-value subsidy rate for Ginnie Mae is effectively zero.

**Projected Subsidies.** Calculated on a FCRA basis, the average subsidy rate for housing and real estate programs in 2021 is -2.9 percent, and the lifetime budgetary savings are projected to be \$37.6 billion.<sup>9</sup> Subsidy rates vary considerably among the individual housing and real estate programs, from -22.5 percent for VA's Vendee Direct Loans program to 6.4 percent for HUD's Title VI Indian Federal Guarantees Program.

Calculated on a fair-value basis, the average subsidy rate for housing and real estate programs in 2021 is 1.2 percent, and the lifetime cost is projected to be \$15.6 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$53.2 billion (see Figure 1).<sup>10</sup>

CBO also examined how sensitive those fair-value estimates were to a variation of plus or minus 10 percent in the estimated risk premium.<sup>11</sup> The resulting cost ranged from \$10.7 billion to \$20.5 billion, and the fair-value

8. In this analysis, a subsidy rate was deemed to be zero if it fell between -0.1 percent and 0.1 percent. See the spreadsheet posted with this report at [www.cbo.gov/publication/56285](http://www.cbo.gov/publication/56285).

9. Those estimates include the FCRA estimate of the budgetary costs of loan guarantees made by Fannie Mae and Freddie Mac. Excluding those guarantees, the average subsidy rate for other housing and real estate loans equals -2.0 percent, and the lifetime budgetary savings are projected to be \$9.2 billion.

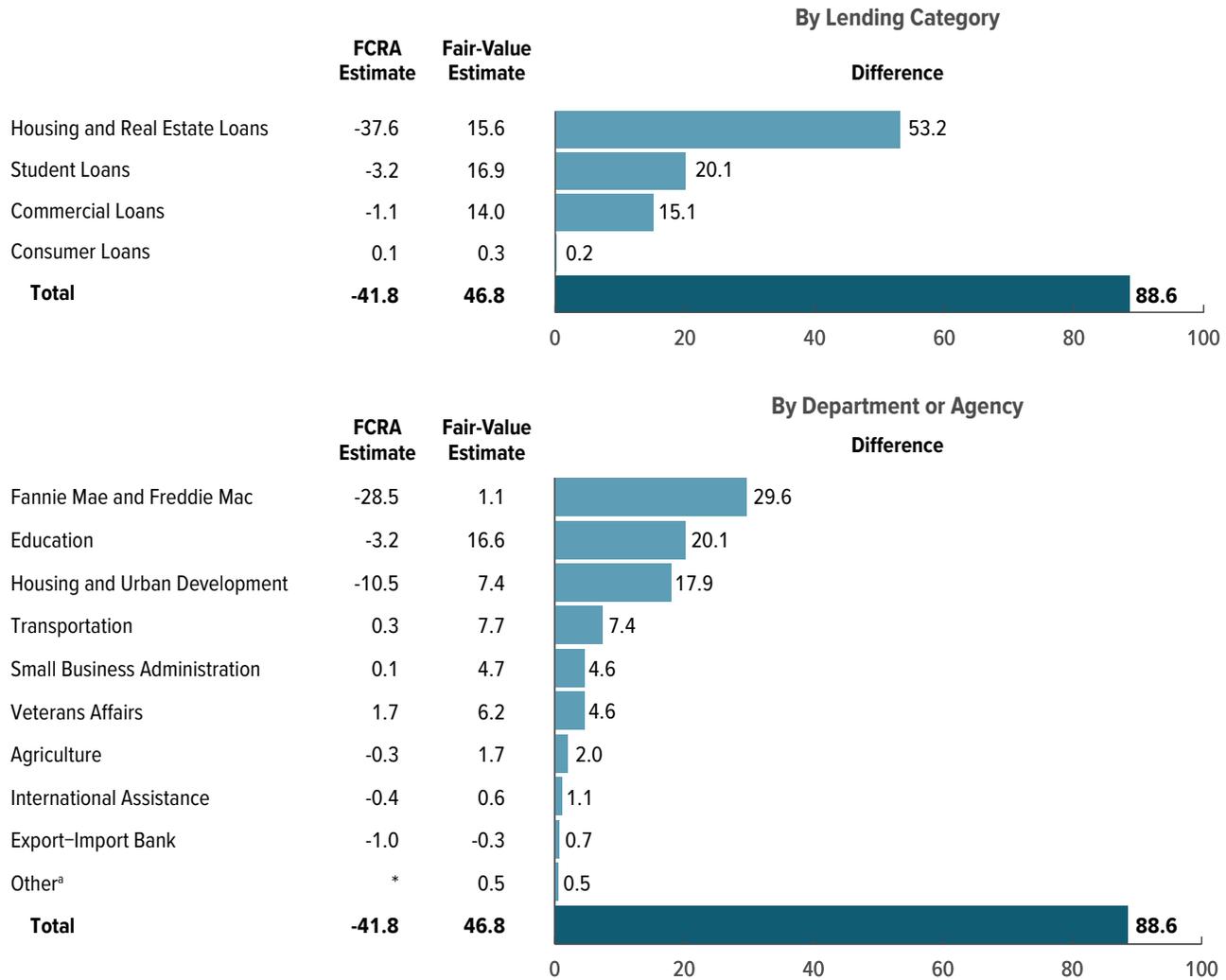
10. When making its baseline projections, CBO estimates the cost of loan guarantees made by Fannie Mae and Freddie Mac on a fair-value basis, whereas for other housing and real estate credit programs, CBO follows the procedures prescribed by FCRA. Excluding Fannie Mae and Freddie Mac, on a fair-value basis the average subsidy rate for other housing and real estate loans equals 3.2 percent and the estimated cost of housing and real estate credit programs is \$14.5 billion, resulting in a difference in budgetary impact equal to \$23.6 billion between the FCRA and fair-value estimates.

11. CBO used 10 percent differences partly because most annual shifts in the risk premium for stocks are smaller than 10 percent; differences amounting to 20 percent would have larger effects than those reported here, although those differences would not necessarily be twice as large.

Figure 1.

**Differences Between FCRA and Fair-Value Estimates of Subsidies in 2021**

Billions of Dollars



Sources: Congressional Budget Office; Office of Management and Budget.

For discretionary programs, the projections of cash flows by other agencies reflect the Administration’s proposed funding for 2021. In total, they are similar to estimates that CBO would prepare on the basis of its baseline projections.

Most of the obligations, commitments, and FCRA estimates shown are from the Office of Management and Budget. The exceptions are student loans, which are administered by the Department of Education, and programs related to single-family mortgages administered by Fannie Mae, Freddie Mac, the Department of Veterans Affairs (VA), and the Federal Housing Administration (FHA) within the Department of Housing and Urban Development; those estimates were made by CBO. These budget projections reflect legislation, administrative actions, and regulatory changes through March 6, 2020. They are based on the economic forecast that CBO completed on January 7, 2020, and do not account for changes to the nation’s economic outlook and fiscal situation arising from the recent and rapidly evolving public health emergency related to the novel coronavirus.

The figure excludes guarantees provided through Ginnie Mae and the secondary market guarantees provided by the Small Business Administration (SBA) for its estimate of total credit assistance because those guarantees are incremental guarantees of loans already included in the totals for loans guaranteed by the FHA, the SBA, and VA.

The figure excludes consolidation loans administered by the Department of Education.

FCRA = Federal Credit Reform Act of 1990; \* = between -\$500 million and \$500 million.

a. Includes the Departments of Commerce, Health and Human Services, Homeland Security, State, and the Treasury, as well as the Environmental Protection Agency.

subsidy rate varied by plus or minus 0.4 percentage points from the central estimate of 1.2 percent.

**Changes Since Last Year.** The average subsidy rate for credit assistance for housing and real estate, excluding what is provided through the GSEs, is projected to decrease by 0.3 percentage points on a FCRA basis and to increase by 0.6 percentage points on a fair-value basis from 2020 to 2021. Including the GSEs' loan guarantees, the subsidy rate is projected to decrease by 0.8 percentage points on a FCRA basis and to increase by 0.2 percentage points on a fair-value basis.

The budgetary cost for the GSEs' mortgage guarantees and the FHA's single-family mortgage guarantee program is projected to decrease by \$12.2 billion on a FCRA basis between 2020 and 2021, even though the amount of credit assistance is projected to increase. The decrease in cost is driven by changes in CBO's forecast of interest rates, which generated a small decrease in the expected costs of default (net of recoveries) and a larger increase in the value of guarantee fees collected.<sup>12</sup> A \$223 million decrease in the projected cost of the FHA's reverse mortgage guarantee program on a FCRA basis is also driven by changes in CBO's macroeconomic forecast. For that program, both stronger growth in house prices and lower interest rates decreased the cost of the FHA's guarantee.

The budgetary cost for VA's home loan guarantees increased by \$3.3 billion on a fair-value basis between 2020 and 2021. That increase was the result of an increase in both the projected amount of credit assistance and the expected costs of default (net of recoveries) for those guarantees.

### Student Loans

The Department of Education's student loan programs are subsidized Stafford loans (which are available to undergraduate students), unsubsidized Stafford loans (which are available to undergraduate and graduate students), and PLUS loans (which are available to parents and to graduate students). Those programs are projected to account for \$96 billion of federal credit in 2021.

**Projected Subsidies.** Calculated on a FCRA basis, the average subsidy rate for the Department of Education's

student loan programs in 2021 is -3.3 percent, and the lifetime budgetary savings are projected to be \$3.2 billion. However, subsidy rates vary considerably among the individual programs, from -31.8 percent for the PLUS loan program for parents to 9.2 percent for the subsidized Stafford loan program. In CBO's assessment, the difference is explained by five key factors:

- The interest rate is 4.1 percent in the subsidized Stafford loan program but 6.7 percent in the PLUS loan program for parents.
- The subsidized Stafford loans accrue no interest while the borrower is enrolled in school at least half time or during other periods of deferment, whereas the PLUS loans for parents begin to accrue interest immediately after origination.<sup>13</sup>
- Borrowers of subsidized Stafford loans are eligible for all income-driven repayment (IDR) plans, the most generous of which require annual payments of 10 percent of the borrowers' discretionary income and forgive outstanding balances after 20 years. The balances of PLUS loans to parents can be consolidated to make them eligible for repayment through a less generous IDR plan, which requires annual payments of 20 percent of discretionary income and forgives outstanding balances after 25 years.
- The estimated default rate is 22.4 percent for subsidized Stafford loans but 12.2 percent for PLUS loans for parents.
- The origination fee is 1 percent for subsidized Stafford loans but 4 percent for PLUS loans for parents.

Calculated on a fair-value basis, the average subsidy rate for the student loan programs in 2021 is 17.6 percent, and the lifetime cost is projected to be \$16.9 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$20.1 billion. Subsidy rates differ substantially among the individual programs, from -10.7 percent for the PLUS loan program for parents to 27.4 percent for the subsidized Stafford loan program.

12. The new interest rate forecast reduces the projected volume of mortgages that are expected to be repaid early, which increases the present value of fees collected on the guarantees offered by the GSEs and the FHA.

13. Under deferment, a borrower may temporarily stop making payments on a student loan, usually without interest accruing on the balance.

The fair-value subsidy rates remained fairly stable when CBO used risk premiums that were higher or lower by 10 percent. The resulting cost ranged from \$15.7 billion to \$18.1 billion, and the fair-value subsidy rate varied by plus or minus 1.2 percentage points from the central estimate of 17.6 percent.

**Changes Since Last Year.** Calculated on a FCRA basis, the average subsidy rate for student loans is projected to increase by 0.7 percentage points, from -4.0 percent in 2020 to -3.3 percent in 2021, resulting in a projected decrease in budgetary savings of \$936 million. However, changes in subsidy rates varied for individual programs, from an increase of 9.6 percentage points (\$1.2 billion) for the PLUS loan program for graduate students to a decrease of 3.1 percentage points (\$869 million) for the subsidized Stafford loan program. Most of the changes to CBO's subsidy rates are explained by changes made to estimates of participation in the Public Service Loan Forgiveness Program, projections of income for borrowers in IDR plans, and the distribution of participation among the various IDR plans for the 2021 cohort of borrowers, which differ from the projections made for the 2020 cohort last year.

Calculated on a fair-value basis, the average subsidy rate for student loans is projected to rise by 0.2 percentage points (from 17.3 percent to 17.6 percent), and the cost of those programs is projected to decrease by \$745 million. The risk premiums for all student loan programs are projected to remain fairly stable from 2020 to 2021, and therefore the change in each program's fair-value subsidy rate is entirely attributable to the same changes in CBO's estimates of defaults, collections, repayments, and interest rates that affect the change in each program's FCRA subsidy rate.

### Commercial Loans

The federal government provides assistance to commercial entities—that is, businesses—in the form of direct loans and guarantees. That assistance is projected to total \$138 billion in 2021. Most of it would be provided through the SBA (\$43 billion), the Department of Transportation (\$33 billion), and the Department of Agriculture (\$25 billion). The SBA also guarantees securities that are themselves backed by federally guaranteed loans. However, CBO has excluded those guarantees from its estimate of total credit assistance because they are incremental guarantees on loans already included in the totals for loans guaranteed by the SBA. CBO

estimates that the fair-value subsidy rate for those guarantees is effectively zero.

**Projected Subsidies.** Calculated on a FCRA basis, the average subsidy rate for commercial loan programs in 2021 is -0.8 percent, and the lifetime budgetary savings are projected to be \$1.1 billion. Most of the commercial loan programs have a subsidy rate that is zero or negative, and those programs are projected to save the federal government \$1.8 billion. Of those savings, more than 80 percent is attributable to the Export-Import Bank's long-term guarantees, the International Development Finance Corporation's loan guarantees and direct loans, and the Farm Service Agency's farm ownership direct loan program.

Calculated on a fair-value basis, the average subsidy rate for commercial loan programs in 2021 is 10.1 percent, and the lifetime cost is projected to be \$14.0 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$15.1 billion. About 85 percent of the projected cost results from four programs: direct loans made by the Department of Transportation under the Transportation Infrastructure Finance and Innovation Act (TIFIA; \$7.6 billion), the SBA's 7(a) loan guarantees for small businesses (\$3.0 billion), the SBA's Section 504 loan program for Certified Development Companies (\$897 million), and the SBA's SBIC Debentures program (\$477 million).

When CBO varied the risk premiums for commercial loans by 10 percent, the resulting cost ranged from \$13.4 billion to \$14.6 billion. Similarly, the fair-value subsidy rate varied by plus or minus 0.4 percentage points from the central estimate of 10.1 percent.

**Changes Since Last Year.** Calculated on a FCRA basis, the average subsidy rate for commercial loans is projected to increase from -1.0 percent in 2020 to -0.8 percent in 2021; the estimated budgetary savings increase by \$22 million. Calculated on a fair-value basis, the average subsidy rate for commercial loans is projected to increase from 6.4 percent in 2020 to 10.1 percent in 2021, increasing the projected cost of those programs by \$7.3 billion.

The change in both the FCRA and fair-value subsidies for commercial loans is mainly driven by a proposed increase of \$27.8 billion in credit obligations for direct loans made by the Department of Transportation under

TIFIA, partly offset by lower subsidy rates for the TIFIA program. The increase in credit obligations raised their budgetary cost by \$269 million on a FCRA basis and \$6.6 billion on a fair-value basis. However, those effects were partly offset by a 4.8 percent decline in the subsidy rate on a FCRA basis (a reduction of \$201 million in subsidy costs) and a 4.0 percent decline on a fair-value basis (a reduction of \$168 million in subsidy costs). In all, TIFIA subsidies' budgetary cost increased by \$68 million on a FCRA basis and \$6.5 billion on a fair-value basis.

### Consumer Loans

The federal government provides loans or loan guarantees to individual borrowers; in 2021, such credit assistance is projected to total \$1.1 billion. The SBA's disaster assistance loans account for almost all of that total (\$1.1 billion); two smaller programs account for just \$4 million. In most cases, those loans and guarantees are secured only by the borrower's income and not by the borrower's other assets, which increases the amount of market risk.

**Projected Subsidies.** Calculated on a FCRA basis, the average subsidy rate for consumer loans in 2021 is 9.0 percent, and the lifetime budgetary cost is projected to be \$99 million. The SBA's disaster assistance loans account for \$98 million of that total; only two smaller programs fall into the category of consumer loans. Of the four categories that CBO has described in this analysis, credit assistance to consumers is the only one that has a positive subsidy rate when analyzed under FCRA procedures.

Calculated on a fair-value basis, the average subsidy rate for consumer loans in 2021 is 25.3 percent, and the lifetime cost is projected to be \$279 million. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$180 million.

The difference between the FCRA and fair-value subsidy rates for consumer loans is the second largest in the four categories, after the difference for student loans. One reason is that the SBA's disaster assistance loans have a large risk premium, reflecting the high default rate and riskiness of the loans; that large risk premium drives up the fair-value subsidy rate. Another reason is that those loans mature after 25 years, which also pushes up the fair-value subsidy rate.

When CBO varied the risk premium for consumer loans by 10 percent, the resulting cost ranged from \$264 million to \$294 billion, and the fair-value subsidy rate varied by plus or minus 1.4 percentage points from the central estimate of 25.3 percent.

**Changes Since Last Year.** Calculated on a FCRA basis, the subsidy rate for the SBA's disaster assistance loans program decreased by 4.7 percentage points from 2020 to 2021, decreasing budgetary costs by \$52 million. Calculated on a fair-value basis, the subsidy rate is expected to decrease by 2.8 percentage points, decreasing costs by \$31 million. The change in both the FCRA and fair-value estimates is driven by a 2.3 percentage-point decrease in the projected default rate (net of recoveries) for that program.

### Differences From CBO's Baseline Projections

CBO regularly projects loan volume and cash flows for the largest credit programs, including the Department of Education's student loan programs, Fannie Mae's and Freddie Mac's guarantees of mortgage-backed securities, the FHA's single-family and reverse mortgage guarantee programs, and VA's mortgage guarantee program. Those programs account for more than 90 percent of total federal credit assistance.

For smaller federal credit programs, which are mostly funded by discretionary appropriations, CBO generally projects that, under current law, subsidy costs would grow with inflation. That is the same approach used for all other discretionary appropriations. Because CBO does not generate estimated cash flows for those smaller credit programs, the agency relied on cash flow estimates prepared by the Administration as the basis for the subsidy estimates for those programs in this report. Nevertheless, in aggregate, CBO's baseline projections for federal credit programs are similar to those produced for this report using FCRA procedures.<sup>14</sup>

14. The Department of Transportation's TIFIA program is a case in which CBO's baseline differs substantially from the estimates in this report. The Federal-Aid Highway Program includes several grant programs and the TIFIA loan program, which together receive funds in a single appropriation; CBO does not separately estimate what will be allocated to TIFIA. The President's budget proposes to separate TIFIA into its own program account and to significantly increase its funding.

This document, which is part of the Congressional Budget Office's continuing effort to make its work transparent, provides Members of Congress, their staff, and others with information about the cost of federal credit programs under two methods: the methods specified in the Federal Credit Reform Act of 1990, which apply to most federal credit programs, and methods based on the fair-value approach, which incorporates market risk. In keeping with CBO's mandate to provide objective, impartial analysis, the report makes no recommendations.

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CBO continually seeks feedback to make its work as useful as possible. Please send any comments to [communications@cbo.gov](mailto:communications@cbo.gov).



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