MAY 2019

Fair-Value Estimates of the Cost of Federal Credit Programs in 2020

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 2020. 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 2020 would result in *savings* of $31 billion. But using the fair-value approach, CBO estimates that those loans and guarantees would have a lifetime *cost* of $36.5 billion. More than 80 percent of the difference between those amounts is attributable to three sources:

- The guarantees that Fannie Mae and Freddie Mac are projected to make in 2020, analyzed on a FCRA basis, would save the federal government $19.2 billion. Under fair-value accounting, however, the guarantees would cost $1.5 billion.
- The Department of Housing and Urban Development's (HUD's) loan and loan guarantee programs are projected to save $7.3 billion on a FCRA basis but to cost $7.1 billion on a fair-value basis.
- The Department of Education's student loan programs are projected to save $4.1 billion on a FCRA basis but to cost $17.6 billion on a fair-value basis.

Federal Credit Programs

For this report, CBO analyzed the 85 programs through which the federal government provides credit assistance. The total amount of federal credit assistance projected for 2020 is $1.4 trillion, consisting of new direct loans that total $128 billion and new loan guarantees that cover $1.3 trillion of loans. Just a few programs are projected to provide more than 90 percent of total federal credit assistance—specifically, the programs offering mortgage

Notes: Numbers in the text, table, and figure may not add up to totals because of rounding. Unless the 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. 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.

guarantees and student loans. The largest federal credit programs by far are the guarantees of mortgage-backed securities provided by Fannie Mae and Freddie Mac. In combination, those government-sponsored enterprises (GSEs) are projected to provide $833 billion in new guarantees in 2020.

Discretionary programs, which are funded through annual appropriation acts, accounted for 67 of the 85 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 Rural Housing Service (RHS), the small-business loans provided by the Small Business Administration (SBA), and the long-term guarantees provided by the Export-Import Bank.[1]

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. Specifically, the agency used its own estimates for the Department of Education's student loan programs, Fannie Mae and Freddie Mac, the FHA's single-family mortgage and reverse mortgage guarantee programs, and VA's mortgage guarantee program. Those estimates are a routine part of CBO's baseline budget projections because they have the potential for significant budgetary impact.[2] 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 approach when preparing its baseline budget projections, analyzing the President's budget proposals, or analyzing other spending proposals.)[3]

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 (OMB) currently uses in the federal budget for most credit programs. The second, called the fair-value approach, estimates the market value of the government's obligations by accounting for market risk.[4] 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.[5] 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 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

1. In its analysis, CBO included activities of the Export-Import Bank in 2020 as proposed in the President's budget request for that year. However, pending enactment of legislation reauthorizing its activities, the Export-Import Bank does not have the authority to make any new loans or loan guarantees after 2019.

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 2020. In total, they are similar to estimates that CBO would prepare on the basis of its baseline projections.

4. 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 accounts for their loan guarantees on a fair-value basis. In contrast, 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. For other credit programs analyzed in this report, both CBO and OMB account for budgetary costs on a FCRA basis.

5. 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.

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 varying 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 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. But 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 $1.4 trillion in new loans and loan guarantees issued by the federal government in 2020 would generate budgetary savings of $31 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 $36.5 billion—thereby adding to the deficit.

For every program that CBO analyzed, the projected fair-value subsidy rate is higher than the projected FCRA subsidy rate—on average, about 5 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.)[6] Specifically, the average subsidy rate, weighted by the amount of the programs' credit, is –2.2 percent on a FCRA basis but 2.5 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, 3.1 percentage points for mortgage guarantees secured by real estate.

Nearly a third 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 estimated under the fair-value approach are negative. 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 credit market—or if the profit opportunity was expected

6. The budgetary cost is the product of the subsidy rate and the size of the commitments or obligations, 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 largest subsidy rate (74.6 percent) and a budgetary cost of only $48 million. And the Department of Education's subsidized Stafford loan program—which is projected to cost $2.7 billion, more than any other credit program—has a much smaller subsidy rate of 12.2 percent.

CBO

Table 1.

Projected Costs of Federal Credit Programs in 2020

	Number of Programs	Obligations or Commitments (Billions of dollars)	Subsidy Rate (Percent) FCRA Estimate	Subsidy Rate (Percent) Fair-Value Estimate	Subsidy (Billions of dollars) FCRA Estimate	Subsidy (Billions of dollars) Fair-Value Estimate
			By Lending Category			
Housing and Real Estate Loans	27	1,228	-2.1	1.0	-26.0	11.9
Student Loans	6	102	-4.0	17.3	-4.1	17.6
Commercial Loans	49	105	-1.0	6.4	-1.0	6.7
Consumer Loans	3	1	13.6	28.0	0.2	0.3
All Lending Categories	**85**	**1,437**	**-2.2**	**2.5**	**-31.0**	**36.5**
			By Department or Agency			
Fannie Mae and Freddie Mac	1	833	-2.3	0.2	-19.2	1.5
Housing and Urban Development	17	245	-3.0	2.9	-7.3	7.1
Veterans Affairs	5	126	0.6	2.3	0.7	2.9
Education	7	102	-4.0	17.3	-4.1	17.7
Agriculture	26	44	-0.1	2.7	**	1.2
Small Business Administration	7	44	*	9.5	**	4.1
Export-Import Bank	4	22	-5.1	-1.8	-1.1	-0.4
International Assistance	9	13	-2.6	3.9	-0.3	0.5
Transportation	2	5	5.0	25.7	0.2	1.2
Other[a]	7	3	2.1	20.5	0.1	0.6
All Departments and Agencies	**85**	**1,437**	**-2.2**	**2.5**	**-31.0**	**36.5**

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 2020. 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 single-family mortgages administered by Fannie Mae, Freddie Mac, the Department of Veterans Affairs, and the Federal Housing Administration within the Department of Housing and Urban Development; those estimates were made by CBO.

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

FCRA = Federal Credit Reform Act; * = between -0.05 percent and 0.05 percent; ** = 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.

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 factors in CBO's calculations, such as underestimates of the appropriate risk premium because of a lack of good market proxies or understatement of the true cost because administrative costs are not included in the calculation.

On a FCRA basis, discretionary programs (considered together) are projected to save $8.5 billion and mandatory programs $22.5 billion. On a fair-value basis, discretionary programs are projected to cost $14.3 billion and mandatory programs $22.2 billion. Of the 67 discretionary credit programs, 47 have a subsidy rate that is zero or negative on a FCRA basis in 2020. Of those, CBO estimates that 34 programs have costs (that is, positive subsidy rates) under the fair-value approach.[7]

7. 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/55278.

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 2020 is provided by Fannie Mae and Freddie Mac ($833 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. CBO regards those loan guarantees as governmental activities; the Administration does not. Other housing and real estate programs include mortgage guarantees provided by HUD ($245 billion), VA ($126 billion), and RHS ($22 billion). Of the $245 billion of credit assistance provided by HUD, $210 billion is attributable to guarantees of single-family mortgages provided through 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 $1.2 trillion in 2020, accounting for 85 percent of the $1.4 trillion total. If the GSEs are excluded from that calculation, federal credit assistance in this category is projected to equal $395 billion in 2020, accounting for 65 percent of a smaller total ($603 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 FHA and VA. CBO projects that guarantees provided through Ginnie Mae would amount to $362 billion in 2020. 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 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 the housing and real estate programs in 2020 is –2.1 percent, and the lifetime budgetary savings are projected to be $26.0 billion.[8] Subsidy rates vary considerably among the individual housing and real estate programs, from –5.6 percent for HUD's Hospital Mortgage Insurance Program to 17.8 percent for VA's Acquired Direct Loans program.

Calculated on a fair-value basis, the average subsidy rate for the housing and real estate programs in 2020 is 1.0 percent, and the lifetime cost is projected to be $11.9 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus $37.9 billion (see Figure 1).[9]

CBO also examined how sensitive those fair-value estimates were to a variation of plus or minus 10 percent in the estimated risk premium.[10] The resulting cost ranged from $8.2 billion to $15.5 billion, and the fair-value subsidy rate varied by plus or minus 0.3 percentage points from the central estimate of 1.0 percent. The smallest deviation in the subsidy rate was for RHS's Single Family Housing Guaranteed Loan Program, whose subsidy rate varied by plus or minus 0.2 percentage points from the central estimate of 1.2 percent. The largest deviation in the subsidy rate was for HUD's Housing Finance Agency risk-sharing program, whose subsidy rate varied by plus or minus 1.0 percentage point from the central estimate of 8.7 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

8. 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 –1.7 percent, and the lifetime budgetary savings are projected to be $6.8 billion.

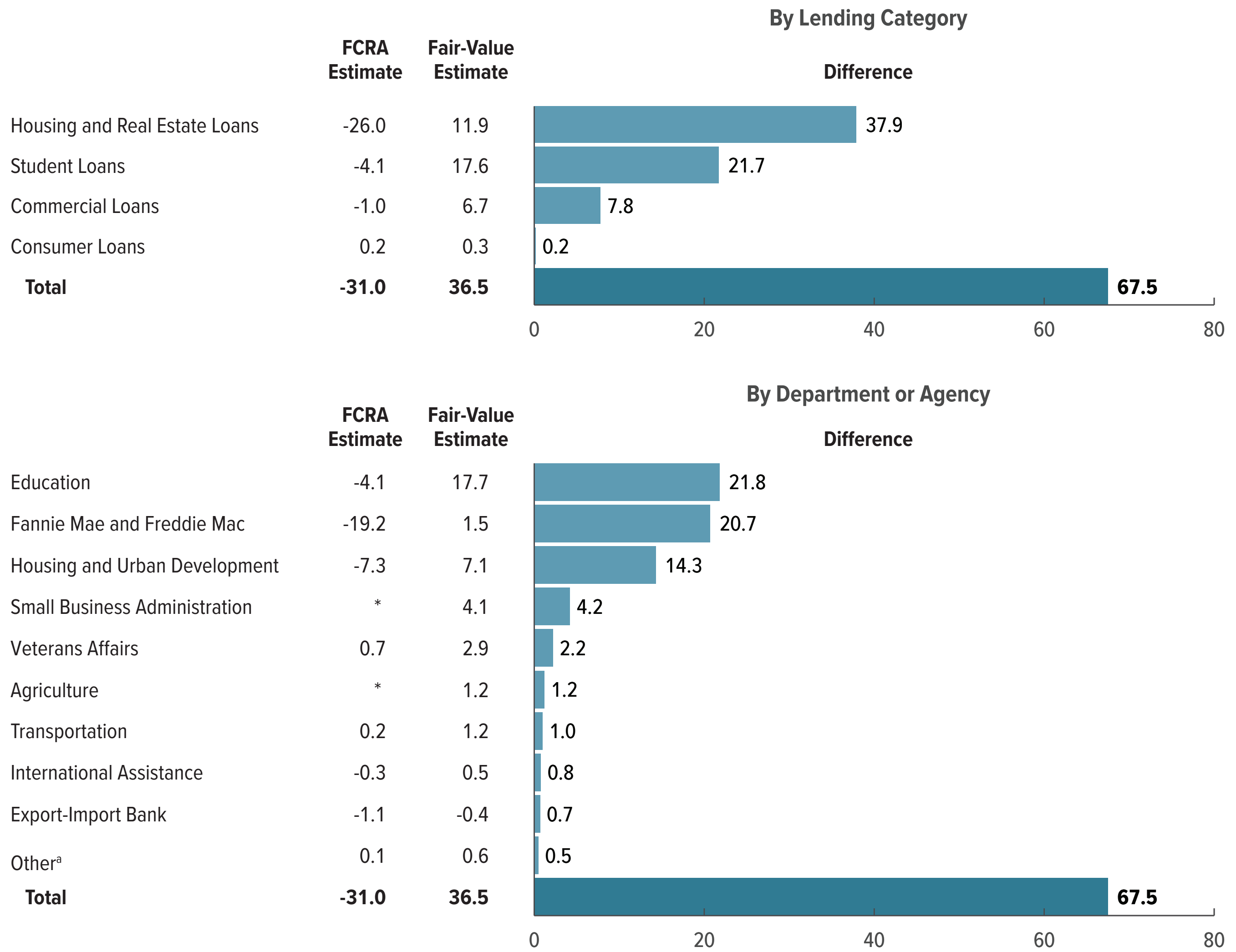
9. When making its baseline projections, CBO estimates the cost of loan guarantees made by Fannie Mae and Freddie Mac on a fair-value basis, whereas for other housing and real estate credit programs, CBO follows the procedures prescribed by FCRA. Excluding Fannie Mae and Freddie Mac, on a fair-value basis the average subsidy rate for other housing and real estate loans equals 2.6 percent and the estimated cost of housing and real estate credit programs is $10.4 billion, resulting in a difference in budgetary impact equal to $17.2 billion between the FCRA and fair-value estimates.

10. 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 2020

Billions of Dollars



By Lending Category

	FCRA Estimate	Fair-Value Estimate	Difference
Housing and Real Estate Loans	-26.0	11.9	37.9
Student Loans	-4.1	17.6	21.7
Commercial Loans	-1.0	6.7	7.8
Consumer Loans	0.2	0.3	0.2
Total	**-31.0**	**36.5**	**67.5**

By Department or Agency

	FCRA Estimate	Fair-Value Estimate	Difference
Education	-4.1	17.7	21.8
Fannie Mae and Freddie Mac	-19.2	1.5	20.7
Housing and Urban Development	-7.3	7.1	14.3
Small Business Administration	*	4.1	4.2
Veterans Affairs	0.7	2.9	2.2
Agriculture	*	1.2	1.2
Transportation	0.2	1.2	1.0
International Assistance	-0.3	0.5	0.8
Export-Import Bank	-1.1	-0.4	0.7
Other[a]	0.1	0.6	0.5
Total	**-31.0**	**36.5**	**67.5**

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 2020. 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 single-family mortgages administered by Fannie Mae, Freddie Mac, the Department of Veterans Affairs, and the Federal Housing Administration within the Department of Housing and Urban Development; those estimates were made by CBO.

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

FCRA = Federal Credit Reform Act; * = 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.

increase by 0.4 percentage points on a FCRA basis and to decrease by 0.3 percentage points on a fair-value basis from 2019 to 2020. Including the GSEs' loan guarantees, the subsidy rate is projected to increase by 0.3 percentage points on a FCRA basis and to decrease by 0.1 percentage point on a fair-value basis.

The most notable increases in the FCRA subsidy rates of individual programs are for FHA's and Ginnie Mae's single-family mortgage guarantee programs. The budgetary cost of those programs is projected to increase by $2.1 billion on a FCRA basis between 2019 and 2020, even though the amount of credit assistance is projected to decline. The increase in cost is driven by an increase in expected costs of default (net of recoveries) for FHA and a decrease in expected income from fees for Ginnie Mae. Also notable is a $1.9 billion decrease in the projected cost of the GSEs' mortgage guarantees and RHS's Single Family Housing Guaranteed Loan Program on a fair-value basis, which is driven by a decrease in the expected volume of the GSEs' mortgage guarantees and a drop in the fair-value subsidy rate for both programs.[11]

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 $102 billion of federal credit in 2020.

Projected Subsidies. Calculated on a FCRA basis, the average subsidy rate for the Department of Education's student loan programs in 2020 is –4.0 percent, and the lifetime budgetary savings are projected to be $4.1 billion. However, subsidy rates vary considerably among the individual programs, from –30.5 percent for the PLUS loan program for parents to 12.2 percent for the subsidized Stafford loan program. In CBO's assessment, the difference is explained by five key factors:

- The interest rate is 5.6 percent in the subsidized Stafford loan program but 8.2 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.[12]
- Borrowers of subsidized Stafford loans are eligible for all income-driven repayment plans, the most generous of which require annual payments of 10 percent of the borrowers' discretionary income and forgive outstanding balances after 20 years. Parents who borrow under the PLUS loan program are eligible for only one type of income-driven repayment plan, which requires annual payments of 20 percent of discretionary income and forgives outstanding balances after 25 years.
- The estimated default rate is 24 percent for subsidized Stafford loans but 13 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 2020 is 17.3 percent, and the lifetime cost is projected to be $17.6 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus $21.7 billion.

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 $17.0 billion to $18.3 billion, and the fair-value subsidy rate varied by plus or minus 0.6 percentage points from the central estimate of 17.3 percent. The smallest resulting deviation in the subsidy rate was for the PLUS loan program for graduate students; the subsidy rate for such loans varied by plus or minus 0.3 percentage points from the central estimate of 16.3 percent. The largest deviation was for the unsubsidized Stafford loan program for

11. The drop in the GSEs' fair-value subsidy rate is based on a slight decrease in expected costs of default (net of recoveries). The decline in the fair-value subsidy rate for RHS's guarantees is driven by a revision to the procedures used to model the cash flows underlying housing loan guarantees. That revision decreased the expected costs of default (net of recoveries) on a fair-value basis.

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

undergraduates; the subsidy rate for those loans varied by plus or minus 1.1 percentage points from the central estimate of 21.9 percent.

Changes Since Last Year. Calculated on a FCRA basis, the average subsidy rate for student loans is projected to increase by 0.1 percentage point, from –4.1 percent in 2019 to –4.0 percent in 2020, and there was no significant change in projected budgetary savings. However, changes in subsidy rates varied for individual programs, from an increase of 3.6 percentage points ($341 million) for the PLUS loan program for parents to a decrease of 1.8 percentage points ($416 million) for the unsubsidized Stafford loan program for undergraduate students. Most of the changes to CBO's subsidy rates are explained by changes made to its projections of volume and repayment patterns for income-driven repayment plans, including Public Service Loan Forgiveness, for the 2020 cohort of borrowers in relation to the projections made for the 2019 cohort last year. The remainder is attributable to changes CBO made to its projections of defaults and collections of loans for the cohort.

Calculated on a fair-value basis, the average subsidy rate for student loans is projected to rise by 1.1 percentage points (from 16.2 percent to 17.3 percent), and the cost of those programs is projected to rise by $1.5 billion. The risk premiums for all student loan programs are projected to remain fairly stable from 2019 to 2020, 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 $105 billion in 2020. Most of it would be provided through SBA ($43 billion), the Export-Import Bank ($22 billion), and the Department of Agriculture ($20 billion). 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 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 2020 is –1.0 percent, and the lifetime budgetary savings are projected to be $1.0 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, 80 percent is attributable to the Export-Import Bank's long-term guarantees program, the International Development Finance Corporation's direct loan program, and the Rural Utilities Service's loans for electricity facilities financed through the Federal Financing Bank.[13]

Calculated on a fair-value basis, the average subsidy rate for commercial loan programs in 2020 is 6.4 percent, and the lifetime cost is projected to be $6.7 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus $7.8 billion. Two-thirds of the projected cost results from three programs: SBA's 7(a) loan guarantees for small businesses ($2.5 billion), SBA's Section 504 loan program for Certified Development Companies ($798 million), and direct loans made by the Department of Transportation under the Transportation Infrastructure Finance and Innovation Act (TIFIA; $1.2 billion).

When CBO varied the risk premiums for commercial loans by 10 percent, the resulting cost ranged from $6.0 billion to $7.4 billion. Similarly, the fair-value subsidy rate varied by plus or minus 0.7 percentage points from the central estimate of 6.4 percent. The largest variation was for the Department of Transportation's direct loans made under TIFIA, whose subsidy rate ranged from 25.9 percent to 29.7 percent.

Changes Since Last Year. Calculated on a FCRA basis, the average subsidy rate for commercial loans is projected to increase from –1.4 percent in 2019 to –1.0 percent in 2020; the estimated budgetary savings decline by $174 million. That change is primarily due to the addition of five programs within the Department of Agriculture's Rural Utilities Service and Rural

13. The Better Utilization of Investments Leading to Development Act of 2018 (the BUILD Act, Public Law 115-254), which was signed into law on October 5, 2018, established a new agency—the U.S. International Development Finance Corporation—by consolidating and expanding existing U.S. government development finance functions, which are conducted primarily by the Overseas Private Investment Corporation and some components of the U.S. Agency for International Development.

Business-Cooperative Service, which together yield a budgetary cost of $240 million.[14] In addition, the elimination of four loan programs accounts for $89 million in budgetary savings. The projected increase in total volume between 2019 and 2020 also results in budgetary savings on a FCRA basis.

Calculated on a fair-value basis, the average subsidy rate for commercial loans is projected to fall from 6.8 percent in 2019 to 6.4 percent in 2020, reducing the projected cost of those programs by $1.0 billion. That decline is mainly driven by the inclusion of six programs that CBO previously categorized as consumer lending: the Department of Agriculture's emergency disaster loans, Farm Operating and Farm Ownership direct loans, Farm Operating and Farm Ownership unsubsidized loan guarantees, and the Federal Emergency Management Agency's Community Disaster Loan Program. The combined subsidy rate for those six programs fell from 12.7 percent in 2019 to 4.4 percent in 2020, decreasing projected costs by $609 million in 2020. That decrease results largely from a drop in projected volume of the Community Disaster Loan Program, which has the highest subsidy rate by far in this category.

Consumer Loans

The federal government provides loans or loan guarantees to individual borrowers; in 2020, such credit assistance is projected to total $1.1 billion. SBA's disaster assistance loans account for almost all of that total ($1.1 billion), with two smaller programs accounting 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 2020 is 13.6 percent, and the lifetime budgetary cost is projected to be $151 million. SBA's disaster assistance loans account for $150 million of that total, with only two smaller programs falling 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 2020 is 28.0 percent, and the lifetime cost is projected to be $309 million. The difference in budgetary impact between the FCRA and fair-value estimates is thus $159 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 SBA's disaster assistance loans have a large risk premium, reflecting the high default rate and riskiness of the loans; the large risk premium drives up the fair-value subsidy rate. Another reason is that those loans mature after 25 years, and that also pushes up the fair-value subsidy rate.

When CBO varied the risk premium by 10 percent, the resulting cost ranged from $296 million to $323 billion, and the fair-value subsidy rate varied by plus or minus 1.2 percentage points from the central estimate of 28.0 percent.

Changes Since Last Year. After re-examining the descriptions of several federal credit programs, CBO recategorized six programs from consumer loans to commercial loans in 2020: the Department of Agriculture's Emergency Farm Loans for natural disaster areas, Farm Operating and Farm Ownership direct loans, Farm Operating and Farm Ownership unsubsidized loan guarantees, and the Federal Emergency Management Agency's Community Disaster Loan Program. That change left just three loan programs in the consumer loans category: SBA's disaster assistance loans ($1.1 billion), the State Department's repatriation loans ($2 million), and VA's vocational rehabilitation loan program ($2 million). Calculated on a FCRA basis, the subsidy rate for SBA's disaster assistance loans program increased by 1.3 percentage points from 2019 to 2020, raising budgetary costs by $15 million. Calculated on a fair-value basis, the subsidy rate is expected to decrease by 0.1 percentage point, increasing savings by $2 million.

14. The Consolidated Appropriations Act, 2018 (P.L. 115–141), which was signed into law on March 23, 2018, created Reconnect Direct Loans and Reconnect Grant Assisted Loans; the Agriculture Improvement Act of 2018 (P.L. 115-334), which was signed into law on December 20, 2018, created Business and Industry Loan Guarantees, Renewable Energy Loan Guarantees, and Section 9003 Loan Guarantees.

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, 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.

Wendy Kiska wrote the report with assistance from Sunita D'Monte, Michael Falkenheim, Paul Holland, Justin Humphrey, David Newman, Robert Reese, Mitchell Remy, and Aurora Swanson and with guidance from Sebastien Gay. Delaney Smith and David Torregrosa fact-checked the report.

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CBO continually seeks feedback to make its work as useful as possible. Please send any comments to communications@cbo.gov.

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