



Fair-Value Estimates of the Cost of Federal Credit Programs in 2019

Summary

The federal government supports some private activities by providing credit assistance to individuals and businesses. In this report, the Congressional Budget Office estimates the lifetime costs that are projected to be incurred by those federal credit programs in 2019. The report shows two kinds of estimates: estimates that were created by following procedures prescribed by the Federal Credit Reform Act of 1990 (FCRA), most of which were produced by other agencies; and estimates newly produced by CBO that account for the market value of the government's obligations, which are called fair-value estimates.

Using FCRA procedures, CBO estimates that new loans and loan guarantees issued in 2019 would result in savings of \$37.4 billion. But using fair-value procedures, CBO estimates that those loans and guarantees would have a lifetime *cost* of \$37.9 billion. More than 80 percent of the difference between those amounts comes from three sources:

- The guarantees that Fannie Mae and Freddie Mac will make in 2019, analyzed on a FCRA basis, are projected to save the federal government about \$23.5 billion. Under fair-value accounting, however, the guarantees would cost about \$2.5 billion.
- The Department of Education's student loan programs are projected to save \$4.1 billion on a FCRA basis but to cost \$16.1 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 \$9.5 billion on a FCRA basis but to cost \$7.1 billion on a fair-value basis.

Federal Credit Programs

Federal credit assistance consists of two types: direct loans and guarantees of loans made by private financial institutions. For this report, CBO analyzed the 79 programs in which the federal government provides credit assistance. The total amount of federal credit assistance projected for 2019 is \$1.5 trillion, consisting of new direct loans totaling \$123 billion and new loan guarantees covering \$1.4 trillion of loans. Just a few programs are projected to provide more than 90 percent of that total—specifically, the programs offering mortgage guarantees and student loans. The largest program by far is Fannie Mae and Freddie Mac's guarantees of mortgage-backed securities. In 2019, those government-sponsored enterprises (GSEs) are projected to provide \$917 billion in new guarantees.

Discretionary programs, whose funding is provided in annual appropriation acts, accounted for 63 of the 79 programs analyzed and 24 percent of the projected dollar value of loans and guarantees. The largest discretionary programs are the mortgage programs run 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.

Notes: Numbers in the text and tables 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.

The remaining 16 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 and Freddie Mac's guarantees of mortgage-backed securities, the Department of Education's student loan programs, and the mortgage guarantee program run 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, CBO used its own estimates for the Department of Education's student loan programs, Fannie Mae and Freddie Mac, the FHA's single-family mortgage guarantee program, 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.¹ For smaller federal credit programs, CBO relied on other federal agencies' projections of cash flows when it computed estimates for this analysis. (The agency usually takes that approach when preparing baseline budget projections, analyzing the President's budget proposals, or analyzing other spending proposals.)

The FCRA and Fair-Value Approaches

For 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, accounts for the market value of the government's obligations by accounting for market risk.² 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

1. Those baseline projections, which CBO usually issues several times each year, incorporate the assumption that current laws generally remain unchanged.
2. CBO considers Fannie Mae and Freddie Mac, which have been in federal conservatorship since September 2008, to be federally owned and controlled. Consequently, CBO displays their loan guarantees on a fair-value basis in its baseline budget projections. 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. For other credit programs analyzed in this report, both CBO and OMB account for budgetary costs on a FCRA basis.

as productivity and employment, and from changes in expectations about future macroeconomic conditions.³ 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.

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.⁴ But in CBO's view, fair-value estimates are a more comprehensive measure than FCRA estimates of the costs of federal credit programs and help lawmakers better understand the advantages and drawbacks of various policies.

CBO has nevertheless included FCRA estimates in this analysis. One reason is that the cash flows underlying FCRA and fair-value estimates are the same, which means that comparing the two kinds of estimates can distinguish the effects on fair-value subsidies that are due to changes in cash flows from those that are due to changes in estimates of market risk.

Projected Costs of Federal Credit Programs Under Both Approaches

Using FCRA procedures, CBO estimates that the \$1.5 trillion in new loans and loan guarantees issued by the federal government in 2019 would generate budgetary savings of \$37.4 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 \$37.9 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,

3. For further discussion, see Congressional Budget Office, *How CBO Produces Fair-Value Estimates of the Cost of Federal Credit Programs—A Primer* (forthcoming).

4. A present value is a single number that expresses a flow of revenues or outlays over time in terms of an equivalent lump sum received or paid at a specific time.

Table 1.

Projected Costs of Federal Credit Programs in 2019

	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
By Lending Category						
Housing and Real Estate Loans	25	1,341	-2.4	1.1	-32.4	14.8
Student Loans	6	99	-4.1	16.2	-4.1	16.1
Commercial Loans	39	84	-1.4	6.8	-1.2	5.7
Consumer Loans	9	9	3.1	14.7	0.3	1.3
All Lending Categories	79	1,534	-2.4	2.5	-37.4	37.9
By Department or Agency						
Fannie Mae and Freddie Mac	1	917	-2.6	0.3	-23.5	2.5
Housing and Urban Development	16	259	-3.7	2.7	-9.5	7.1
Veterans Affairs	5	143	0.7	2.8	1.0	4.0
Education	7	100	-4.1	16.2	-4.1	16.2
Small Business Administration	7	44	*	9.7	**	4.3
Agriculture	21	41	-1.3	5.2	-0.5	2.1
Export-Import Bank	4	17	-5.6	-2.7	-0.9	-0.4
Transportation	2	5	5.5	26.6	0.2	1.2
International Assistance	7	5	-4.3	4.7	-0.2	0.3
Other ^a	9	3	2.8	20.9	0.1	0.7
All Departments and Agencies	79	1,534	-2.4	2.5	-37.4	37.9

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

Most of the obligations, commitments, and FCRA estimates shown are from the Office of Management and Budget. The exceptions are for student loans, which are administered by the Department of Education, and for 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, Interior, State, and Treasury, as well as the Environmental Protection Agency.

and a negative rate indicates savings.)⁵ Specifically, the average subsidy rate, weighted by the amount of the

programs' credit, is -2.4 percent on a FCRA basis but 2.5 percent on a fair-value basis.

5. However, 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, the Federal Emergency Management Agency's Community Disaster Loan Program has the largest subsidy rate (90.7 percent) and a budgetary cost of only \$75 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 subsidy rate of just 12.1 percent.

However, the amount by which fair-value subsidy rates exceed FCRA subsidy rates varies considerably. The largest difference, about 20 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, 3.5 percentage points for mortgage guarantees secured by real estate.

More than 25 percent 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 one of the student loan programs, 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 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 \$10.8 billion and mandatory programs \$26.6 billion. On a fair-value basis, discretionary programs are projected to cost \$15.2 billion and mandatory programs \$22.7 billion. Of the 63 discretionary credit programs, 44 have a subsidy rate that is zero or negative on a FCRA basis in 2019. Of those, CBO estimates that 32 programs have costs (that is, positive subsidy rates) under the fair-value approach.⁶

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 2019 is provided by Fannie Mae and Freddie Mac (\$917 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 (\$259 billion), VA (\$142 billion), and the RHS (\$19 billion). Of the \$259 billion of credit assistance provided by HUD, \$225 billion is guarantees of single-family mortgages 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 comes to a projected \$1.3 trillion in 2019, accounting for 88 percent of the \$1.5 trillion total. If the GSEs are excluded from that calculation, federal credit assistance in this category comes to a projected \$424 billion in 2019, accounting for 69 percent of a smaller total (\$617 billion).

The federal government also provides guarantees through the Government National Mortgage Association (Ginnie Mae) for securities that are themselves backed by federally guaranteed mortgages, including mortgages guaranteed by FHA and VA. CBO projects that guarantees through Ginnie Mae will amount to \$435 billion in 2019. 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. Pending further analysis, 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 2019 is -2.4 percent, and the lifetime

6. 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/54095.

budgetary savings are projected to be \$32.4 billion.⁷ Subsidy rates vary considerably among the individual housing and real estate programs, from -11.9 percent for VA's Native American Direct Loans program to 11.3 percent for HUD's Title VI Indian Federal Guarantees program.

Calculated on a fair-value basis, the average subsidy rate for the housing and real estate programs in 2019 is 1.1 percent, and the lifetime cost is projected to be \$14.8 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$47.2 billion (see Figure 1).⁸

CBO also examined how sensitive those fair-value estimates were to a variation of plus or minus 10 percent in the risk premium.⁹ The resulting cost ranged from \$10.7 billion to \$18.9 billion, and the fair-value subsidy rate varied by plus or minus 0.3 percentage points from the central estimate of 1.1 percent. The resulting deviations in the subsidy rate were smaller in programs with lower default costs, shorter loan terms, and less market risk—such as HUD's Housing Finance Agency Risk Sharing program, whose subsidy rate varied by plus or minus 0.1 percentage point from the central estimate of 1.2 percent. The deviations were larger in programs with higher default costs, longer loan terms, and more market risk—such as RHS's Guaranteed 538 Multi-Family Housing program, whose subsidy rate varied by plus or minus 1.0 percentage point from the central estimate of 5.2 percent.

7. Those estimates include the FCRA estimate of the budgetary costs of loan guarantees from Fannie Mae and Freddie Mac. Excluding those guarantees, the average subsidy rate for other housing and real estate loans equals -2.1 percent, and the lifetime budgetary savings are projected to be \$8.9 billion.

8. Again, when making its baseline projections, CBO estimates loan guarantees from 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, the fair-value estimate of housing and real estate credit programs is \$12.3 billion, resulting in a difference in budgetary impact equal to \$21.2 billion between the FCRA and fair-value estimates.

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

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 increase by 0.2 percentage points on both a FCRA and a fair-value basis from 2018 to 2019. Including the GSEs' loan guarantees, the subsidy rate is projected to increase by 0.5 percentage points on a FCRA basis and to be unchanged on a fair-value basis.

The most notable increases in the subsidy rates of individual programs are for FHA's and VA's single-family mortgage guarantee programs. The budgetary cost of those programs is projected to increase by \$1.4 billion on a FCRA basis between 2018 and 2019, 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) and a decrease in expected income from fees. Also notable is a \$1.4 billion decrease in the projected cost of the GSEs' guarantees on a fair-value basis, which is driven by a slight drop in their fair-value subsidy rate and a decrease in the expected volume of their 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 \$99 billion of federal credit in 2019.

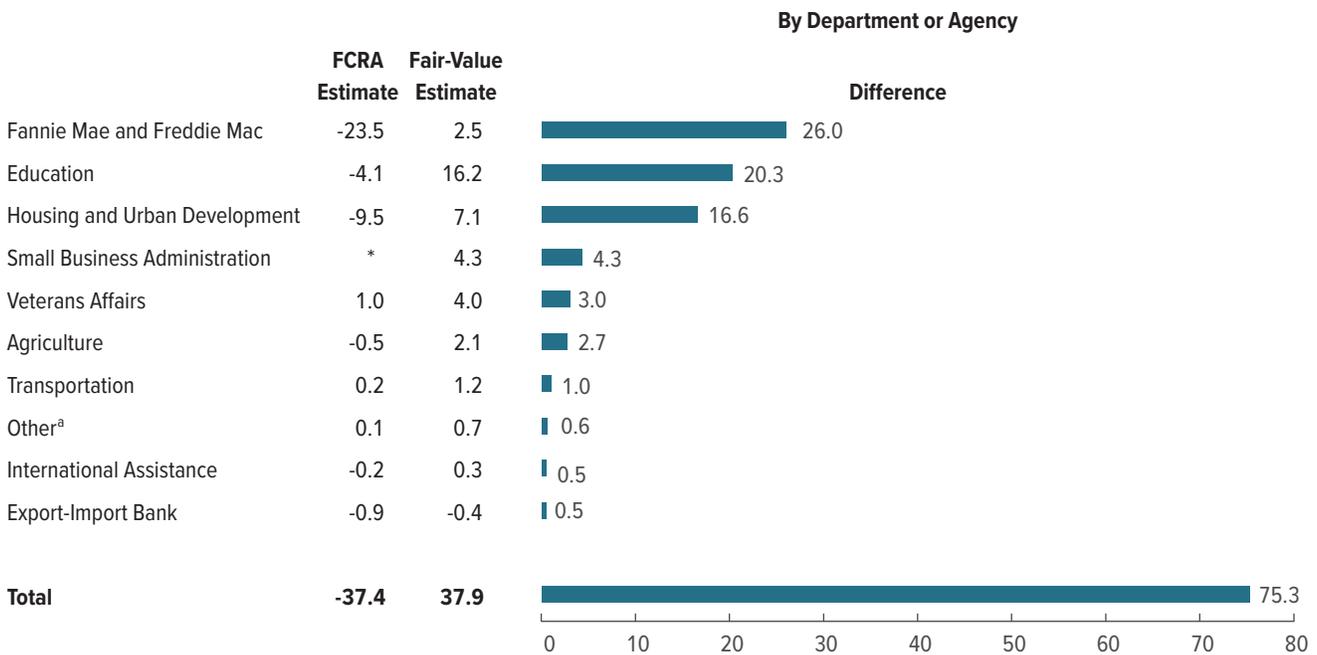
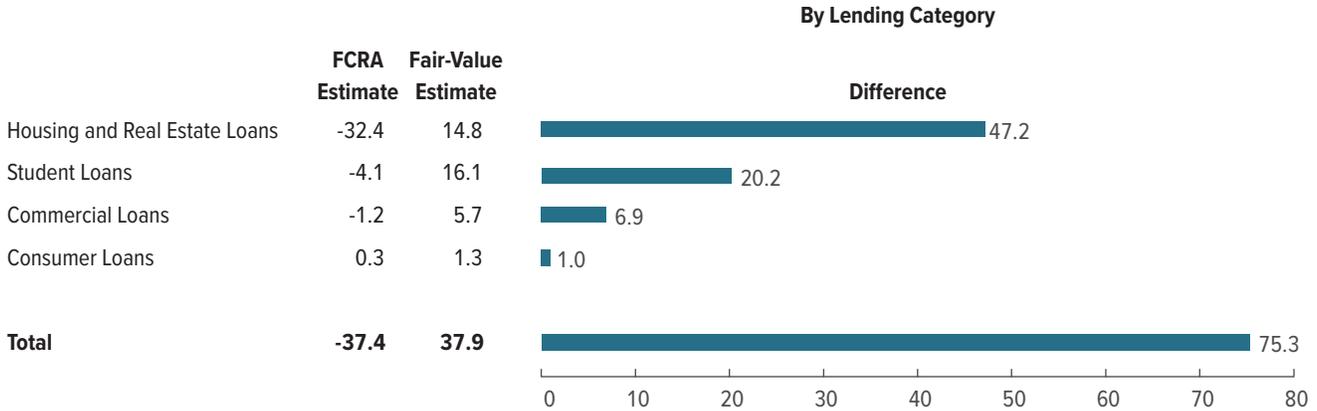
Projected Subsidies. Calculated on a FCRA basis, the average subsidy rate for the Department of Education's student loan programs in 2019 is -4.1 percent, and the lifetime budgetary savings are projected to be \$4.1 billion. However, subsidy rates vary considerably among the individual programs, from -34.1 percent for the PLUS loan program for parents to 12.1 percent for the subsidized Stafford loan program. The large difference between those two rates and the size of the sums involved have spurred discussion by many interested parties in the past. In CBO's assessment, the difference is explained by five key factors:

- The interest rate is 4.9 percent in the subsidized Stafford loan program but 7.5 percent in the PLUS loan program for parents.

Figure 1.

Differences Between FCRA and Fair-Value Estimates of Subsidies in 2019

Billions of Dollars



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

Most of the obligations, commitments, and FCRA estimates shown are from the Office of Management and Budget. The exceptions are for student loans, which are administered by the Department of Education, and for 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 -\$500 million and \$500 million.

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

- 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.
- 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 borrowing 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 21 percent for subsidized Stafford loans but 12 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 2019 is 16.2 percent, and the lifetime cost is projected to be \$16.1 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$20.2 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 \$15.5 billion to \$16.6 billion, and the fair-value subsidy rate varied by plus or minus 0.6 percentage points from the central estimate of 16.2 percent. The smallest resulting deviation in the subsidy rate was for the unsubsidized Stafford loan program for graduate students, whose subsidy rate varied by plus or minus 0.2 percentage points from the central estimate of 14.5 percent. The largest deviation was for the unsubsidized Stafford loan program for undergraduates, whose subsidy rate varied by plus or minus 1.0 percentage point from the central estimate of 22.3 percent.

Changes Since Last Year. Calculated on a FCRA basis, the average subsidy rate for student loans is projected to increase by 4.8 percentage points, from -8.9 percent in 2018 to -4.1 percent in 2019, resulting in a \$4.9 billion decrease in projected budgetary savings. Most of that

decrease is explained by changes that CBO made to its projections of defaults, collections, and repayments for the 2019 cohort of borrowers in relation to the projections made for the 2018 cohort last year. The remainder is attributable to the fact that CBO's projections of interest rates have risen since last year; discounting loans by means of higher interest rates on U.S. Treasury securities reduces the loans' present value.

Calculated on a fair-value basis, the average subsidy rate for student loans is projected to rise by 3.5 percentage points (from 12.7 percent to 16.2 percent), increasing the projected cost of those programs by \$3.3 billion. The risk premiums for all student loan programs are projected to decrease only slightly from 2018 to 2019, and therefore the increase in the fair-value subsidy rates is entirely attributable to the same changes in CBO's estimates of defaults, collections, repayments, and interest rates that affect the increase in FCRA subsidy rates.

Commercial Loans

The federal government provides assistance to commercial entities—that is, businesses—in the form of direct loans and guarantees. In CBO's projections, that assistance totals \$84 billion in 2019. Most of it is provided through SBA (\$43 billion), the Export-Import Bank (\$17 billion), and the Department of Agriculture (\$11 billion). SBA also provides guarantees for 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. Pending further analysis, 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 2019 is -1.4 percent, and the lifetime budgetary savings are projected to be \$1.2 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 \$1.7 billion. Of those savings, 87 percent comes from the Export-Import Bank's Long-Term Guarantees program, the Overseas Private Investment Corporation's loan guarantees, and Federal Financing Bank Electric Loans.

Calculated on a fair-value basis, the average subsidy rate for commercial loan programs in 2019 is 6.8 percent,

and the lifetime cost is projected to be \$5.7 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$6.9 billion. Two-thirds of the projected cost results from two programs: SBA's 7(a) General Business Loan Guarantees (\$2.6 billion) and direct loans made by the Department of Transportation under the Transportation Infrastructure Finance and Innovation Act (TIFIA; \$1.1 billion).¹⁰

When CBO varied the risk premiums for commercial loans by 10 percent, the resulting budgetary cost ranged from \$5.1 billion to \$6.4 billion. Similarly, the fair-value subsidy rate varied by plus or minus 0.8 percentage points from the central estimate of 6.8 percent. The largest variation was for the Department of Transportation's direct loans made under TIFIA, whose rate ranged from 27.0 percent to 30.9 percent.

Changes Since Last Year. Calculated on a FCRA basis, the average subsidy rate for commercial loans is projected to fall from -0.3* percent in 2018 to -1.4 percent in 2019, increasing estimated budgetary savings by \$0.9* billion. That change is primarily due to the addition of five programs within the Overseas Private Investment Corporation, each of which has a negative subsidy rate (ranging from -2.4 percent to -13.7 percent) and which together yield projected savings of \$383 million. Overall, credit obligations for international assistance programs increased from \$2.3 billion in 2018 to \$5.5 billion in 2019, changing the budgetary effect from a cost of \$210* million in 2018 to savings of \$236 million in 2019. In addition, the subsidy rate for the Export-Import Bank's Long-Term Guarantees program fell from -4.5 percent in 2018 to -8.0 percent in 2019, for additional budgetary savings of \$327* million. In contrast, budgetary savings for other programs shrank, on net.

[*Values corrected on October 2, 2018]

10. The Export-Import Bank's Long-Term Guarantees program generates savings on both a FCRA and a fair-value basis—\$926 million on a FCRA basis and \$471 million on a fair-value basis. In May 2014, by contrast, CBO estimated that the program's loans in 2015 would generate costs. That change since 2014 stems mainly from CBO's current use of a lower discount rate, which is consistent with unexpectedly low interest rates. Furthermore, the reported amount of projected defaults has fallen from 2015 to 2019. In the 2015 edition of its *Federal Credit Supplement*, the Administration reported an expected default rate of 6.12 percent, a recovery rate of 66.93 percent, and a default subsidy cost (net of recoveries) of 1.91 percent for the program. In the 2019 edition, the expected default rate was 2.94 percent, the recovery rate was 63.09 percent, and the default subsidy cost was 0.99 percent.

Calculated on a fair-value basis, the average subsidy rate for commercial loans is projected to fall from 7.7 percent in 2018 to 6.8 percent in 2019, reducing the projected cost of those programs by \$1 billion. That decline is mainly driven by a reduction in the subsidy rate for two programs, the Export-Import Bank's Long-Term Guarantees and SBA's 504 Commercial Real Estate Refinance Program. The combined subsidy rate for those two programs fell from 3.8 percent in 2018 to -3.0 percent in 2019, increasing savings by \$1.2 billion in 2019.

Consumer Loans

The federal government provides loans or loan guarantees to individual borrowers; in 2019, such credit assistance is projected to total \$8.6 billion. The Department of Agriculture's Farm Operating and Farm Ownership direct loans and loan guarantees (\$7.4 billion) and SBA's Disaster Assistance loans (\$1.1 billion) account for 98 percent of that total. 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 2019 is 3.1 percent, and the lifetime budgetary cost is projected to be \$264 million. 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. Eighty percent of the projected \$264 million cost results from SBA's Disaster Assistance loans (\$135 million) and loans for the same purpose from the Federal Emergency Management Agency (\$75 million). The only programs in this category with a negative subsidy rate are the Department of Agriculture's Farm Ownership direct loan and loan guarantee programs, which contribute \$26 million in budgetary savings.

Calculated on a fair-value basis, the average subsidy rate for consumer loans in 2019 is 14.7 percent, and the lifetime cost is projected to be \$1.3 billion. The difference in budgetary impact between the FCRA and fair-value estimates is thus \$1.0 billion.

The difference between the FCRA and fair-value subsidy rates is the second largest in the four categories, after the difference for student loans. One reason is that SBA's Disaster Assistance loans and the Department of Agriculture's Emergency Disaster 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 most consumer loan programs mature after a long time—18 to 40 years—and that too pushes up the fair-value subsidy rate.

When CBO varied the risk premium by 10 percent, the resulting cost ranged from \$1.2 billion to \$1.4 billion, and the fair-value subsidy rate varied by plus or minus 1.0 percentage point from the central estimate of 14.7 percent.

Changes Since Last Year. Calculated on a FCRA basis, the average subsidy rate for consumer loans is projected to rise by 0.3* percentage points from 2018 to 2019. Calculated on a fair-value basis, it is projected to rise by 0.2 percentage points. Either way, the projected cost increases by \$100 million. Those increases are fully explained by the underlying cash flows for individual programs—for example, small differences in the reported interest rate, default rate, and recovery rate. There were no particularly notable changes in the cost of individual programs.

[*Value corrected on October 2, 2018]

This report was prepared in response to a request from the Chairman of the House Committee on Financial Services. In keeping with the Congressional Budget Office's mandate to provide objective, impartial analysis, the report makes no recommendations.

Wendy Kiska and Mitchell Remy wrote the report with assistance from Sunita D'Monte, Justin Humphrey, Jeffrey LaFave, David Newman, and Aurora Swanson and with guidance from Sebastien Gay. Michael Falkenheim and David Torregrosa of CBO provided useful comments.

Wendy Edelberg, Mark Hadley, and Jeffrey Kling reviewed the report, Benjamin Plotinsky edited it, and Jorge Salazar prepared it for publication. An electronic version is available on CBO's website (www.cbo.gov/publication/54095).



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