



## Testimony

# Estimates of the Cost of the Credit Programs of the Export-Import Bank

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**Before the**  
**Committee on Financial Services**  
**U.S. House of Representatives**

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## Summary

Chairman Hensarling, Congresswoman Waters, and Members of the Committee, thank you for inviting me to testify today about the Congressional Budget Office's (CBO's) recent estimates of the budgetary costs of the Export-Import Bank's (Ex-Im Bank's) credit programs.

My testimony describes those estimates, which were provided in *Fair-Value Estimates of the Cost of Selected Federal Credit Programs for 2015 to 2024* (May 2014), and discusses the two different approaches that CBO uses to estimate the costs of credit programs:

- One approach reflects the procedures currently used in the federal budget as prescribed by the Federal Credit Reform Act of 1990 (FCRA), and
- Another approach, known as fair value, shows estimated costs that reflect the market value of the federal government's obligations.

For fiscal years 2015 to 2024, CBO found that Ex-Im Bank's six largest credit programs would generate budgetary savings of about \$14 billion under FCRA accounting but cost about \$2 billion on a fair-value basis (see Table 1 and Figure 1). Both the FCRA and fair-value estimates are based on Ex-Im Bank's projections of cash flows for those credit programs as reported in the *Federal Credit Supplement* to the Administration's 2015 budget. Thus, both estimates reflect the program terms and outcomes—including the amount of lending, fees, and borrowers' rates of repayment and default—that are expected to prevail under the current structure of the programs and the President's budget request for those programs in 2015.

The difference between the two estimates lies in the treatment of the cost of market risk, which is one component of financial risk. Much of the risk of financial investments can be avoided by diversifying a portfolio; market risk is the component of risk that remains even after a portfolio has been diversified as much as possible. It arises because most investments tend to perform relatively poorly when the economy is weak and relatively well when the economy is strong. People value income from investments more when the economy is weak and incomes are relatively low, and so assign a higher cost to losses that occur during economic downturns. The higher cost of losses in bad times (as well as lower cost in good times) is captured in the cost of market risk.

The government is exposed to market risk through its credit programs because, when the economy is weak, borrowers default on their debt obligations more frequently and recoveries from defaulting borrowers are smaller. That market risk is effectively passed along to taxpayers and beneficiaries of government programs because they bear the consequences of the government's financial losses. Moreover, that risk is costly to those taxpayers and beneficiaries because they also tend to value resources more highly when the economy is weak.

Under the FCRA approach to accounting for federal credit programs, Treasury borrowing rates are used to discount expected future cash flows—that is, to translate future cash flows into current dollars. That approach essentially treats future cash flows subject to market risk as having the same value as Treasury securities that promise the same average payments with no risk. This means that the market risk of federal credit assistance is treated implicitly as having no cost to the government, which has important consequences:

- The costs of federal credit programs reported in the budget are generally lower than the costs to private financial institutions for providing credit on the same terms—at least in part because private institutions require compensation for market risk;
- The budgetary costs of federal credit programs are generally lower than those of grants for similar purposes that involve equivalent economic costs; and
- Purchases of loans and loan guarantees at market prices appear to make money for the government and, conversely, sales of loans and loan guarantees at market prices appear to result in losses.

To incorporate the cost of market risk, the fair-value approach generally entails using the discount rates on expected future cash flows that private financial institutions would use. That approach effectively uses market prices to measure the cost to the public of the lower returns on federal loans and loan guarantees when the economy is weak and incomes are relatively low. In CBO's view, therefore, fair-value estimates provide a more comprehensive measure of the costs of federal credit programs, and CBO has provided fair-value estimates for many programs to help lawmakers more fully understand the trade-offs between certain policies.

**Table 1.****Estimated Total Budgetary Costs of the Credit Programs of the Export-Import Bank of the United States Under FCRA and the Fair-Value Approach, 2015 to 2024**

	Type of Credit	Obligations or Commitments (Billions of dollars)	Subsidy Cost (Billions of dollars)		Subsidy Rate (Percent)	
			FCRA	Fair-Value	FCRA	Fair-Value
Export Financing	Direct loan	30.0	-2.8	-1.0	-9.3	-3.2
Long-Term Guarantees	Guarantee	245.6	-11.5	1.7	-4.7	0.7
Medium-Term Guarantees	Guarantee	1.9	*	**	-1.6	2.2
Medium-Term Insurance	Guarantee	1.7	-0.1	**	-3.7	‡
Short-Term Insurance	Guarantee	66.8	*	0.5	†	0.7
Working Capital Fund	Guarantee	29.6	*	0.3	†	0.9
<b>Total</b>		<b>375.6</b>	<b>-14.4</b>	<b>1.6</b>	<b>-3.8</b>	<b>0.4</b>

Sources: Congressional Budget Office (for subsidy estimates, using data supplied by the Export-Import Bank of the United States); Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2015: Federal Credit Supplement* (for commitments and obligations).

Notes: The table shows FCRA and fair-value estimates computed from projected obligations (for direct loans), commitments (for guaranteed loans), and cash flows for 2015 provided by the Administration's Office of Management and Budget and the Export-Import Bank of the United States, assuming reauthorization of the Export-Import Bank.

Subsidy costs exclude administrative expenses.

The subsidy rate is the subsidy cost divided by the projected obligations or commitments.

Numbers in the table may not add up to totals because of rounding.

FCRA = Federal Credit Reform Act; \* = between -\$50 million and zero; \*\* = between zero and \$50 million; † = between -0.05 percent and zero; ‡ = between zero and 0.05 percent.

Some analysts have expressed concern, however, about potential drawbacks of using the fair-value approach in federal budgeting, including the following:

- Fair-value estimates include costs that will not be paid directly by the federal government if actual cash flows turn out to match expected cash flows, and including those costs makes comparisons with estimated costs for some noncredit programs more difficult;
- Fair-value estimates are somewhat more volatile than FCRA estimates over time because of changes in the cost of market risk;
- Producing fair-value estimates is more complex than producing FCRA estimates; and
- Communicating the basis for fair-value estimates to policymakers and the public is more difficult than communicating the basis for FCRA estimates.

Proponents of the fair-value approach respond to those concerns by arguing the following: Decisions about

spending the public's money should take into account how the public assesses financial risks as expressed through market prices; by taking those prices into account, fair-value estimates provide unbiased estimates of the expected cost of loans and loan guarantees when that credit assistance is offered; and, other concerns can be mitigated by using established accounting practices.

My testimony provides further background on the cost of market risk and on the FCRA and fair-value approaches, drawn primarily from CBO's earlier report *Fair-Value Accounting for Federal Credit Programs* (March 2012).

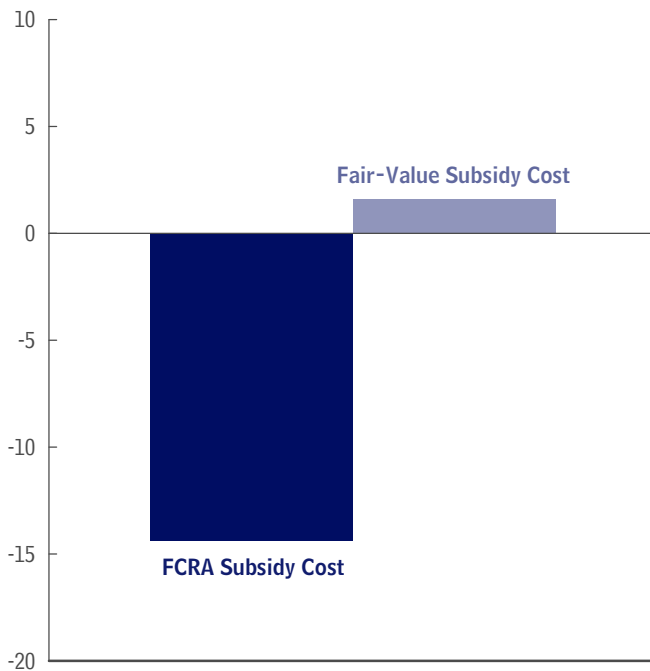
### **The Difference Between the FCRA and Fair-Value Approaches**

Although the costs of most federal activities are recorded in the budget on a cash basis (showing the balance of inflows and outflows when those flows occur), the life-time costs of federal credit programs are recorded up front on an accrual basis (that is, they are recognized in the year in which a loan is made). The lifetime cost of a federal loan or loan guarantee—called its subsidy cost—is

**Figure 1.**

### Estimated Total Budgetary Costs of the Credit Programs of the Export-Import Bank of the United States Under FCRA and the Fair-Value Approach, 2015 to 2024

(Billions of dollars)



Sources: Congressional Budget Office (for subsidy estimates, using data supplied by the Export-Import Bank of the United States); Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2015: Federal Credit Supplement* (for commitments and obligations).

Notes: The figure shows FCRA and fair-value estimates computed from projected obligations (for direct loans), commitments (for guaranteed loans), and cash flows for 2015 provided by the Administration's Office of Management and Budget and the Export-Import Bank of the United States, assuming reauthorization of the Export-Import Bank.

Subsidy costs exclude administrative expenses.

FCRA = Federal Credit Reform Act.

measured by discounting all of the expected future cash flows associated with the loan or loan guarantee to a present value at the date the loan is disbursed. Those cash flows include the amounts disbursed, principal repaid, interest received, fees charged, and net losses that accrue from defaults; the cash flows do not include administrative costs, which are discussed below. The present value expresses the flows of current and future income or payments in terms of a single number that is equivalent to a lump sum received or paid today; the value

depends on the discount rate (that is, the rate of interest) that is used to translate future cash flows into current dollars. For credit programs to have estimated budgetary savings, the discounted value of the government's cash inflows must exceed the discounted value of its cash outflows.

#### What Is the FCRA Approach?

Under FCRA's rules, the present value of expected future cash flows is calculated by discounting them using the rates on U.S. Treasury securities with similar terms to maturity. For instance, the yield on a Treasury security maturing in one year is used to discount cash flows one year from disbursement, a two-year rate is used for cash flows two years from disbursement, and so on.

#### What Is the Fair-Value Approach?

Under the fair-value approach, estimates are based on market values in a well-functioning market—actual market prices when markets are functioning well and prices are available, or approximations of market prices when directly comparable figures are unavailable. Thus, this approach accounts for the cost of market risk, which the FCRA approach does not, and thereby offers a more comprehensive estimate of costs.

Although there are many techniques to approximate fair values, a standard method for estimating the market value of a direct loan or loan guarantee—and the method adopted for CBO's analysis of Ex-Im Bank—is to discount the expected cash flows to the present using market-based discount rates. In that case, the only difference between FCRA and fair-value estimates stems from the choice of discount rates. The estimates of cash flows, including the net amount expected to be lost through defaults, are the same in both approaches, but the difference in discount rates means that those cash flows are valued differently. The difference between the FCRA and fair-value discount rates can be interpreted as the additional compensation that investors would require to bear the market risk associated with federal credit assistance.

CBO's fair-value estimates are based on the accounting principles that are generally employed by private financial institutions. Under those principles, estimates of federal costs that are derived from market prices require adjustments to reflect certain differences between the government and the private sector, such as in the costs of originating and servicing loans. CBO continues to refine the adjustments that the agency makes.

### How Do Costs Under the Two Approaches Generally Differ?

The cost of a direct loan reported in the federal budget under FCRA procedures is almost always lower than its cost as estimated using the fair-value approach—that is, lower than the cost that private institutions would assign to similar credit assistance on the basis of market prices. Private institutions would generally calculate the present value of expected future cash flows by discounting them using the expected rates of return on private loans (or securities) with similar risks and maturities. Because the expected rates of return on private loans exceed the rates on Treasury securities, the discounted value of borrowers' expected payments is smaller under the fair-value approach, which implies a higher estimated cost for issuing a loan.

Similar reasoning implies that the cost of a loan guarantee calculated under FCRA is almost always lower than its cost as estimated using the fair-value approach. When the government provides a loan guarantee, the government bears the losses resulting from a default on the loan, so a lender places more value on that loan than on the same loan without a guarantee. The difference in value between those two loans is the “fair value” of the guarantee, which reflects the larger losses that an investor would expect on a loan without a guarantee and the higher discount rate that an investor would require to compensate for the market risk associated with those losses. Under FCRA, the expected losses, but not the value of the market risk, are included in the cost. Recognizing the costs of market risk through the use of the fair-value approach results in a higher estimated cost for issuing a loan guarantee.

### The Export-Import Bank's Loan, Loan Guarantee, and Insurance Programs

The Export-Import Bank provides direct loans, loan guarantees, and credit insurance to foreign and domestic entities to support the export of U.S. goods and services. Ex-Im Bank's programs are subject to the annual appropriation process and, hence, are classified as discretionary. Appropriation bills provide funding to cover the subsidy cost, if any, of the credit assistance provided by Ex-Im Bank. In addition, Ex-Im Bank's authorizing legislation limits the total dollar amount of loans, loan guarantees, and insurance that the bank can have outstanding at any given time.<sup>1</sup> That total exposure was approximately

\$114 billion at the end of fiscal year 2013, which is \$16 billion below the authorization of \$130 billion for that year.

For its analysis under the FCRA approach, CBO computed subsidy costs for 2015 using Ex-Im Bank's projection of cash flows and the Office of Management and Budget's discount rates—thus, the subsidy costs match those reported in the *Federal Credit Supplement* to the Administration's 2015 budget.<sup>2</sup> For its analysis under the fair-value approach, CBO used the same cash flows but added a risk premium to the discount rate. Those risk premiums were estimated on the basis of the default projections underlying the cash flows and the market risk premium associated with private loans with similar default rates. Because it did not have a basis for projecting any changes in subsidy rates (the total costs or savings divided by the total amounts disbursed) or in amounts of activity in Ex-Im Bank's credit programs beyond 2015, CBO assumed that the subsidies in each year of the coming decade would match the estimated subsidies for 2015.

If Ex-Im Bank's activity in 2015 matches the amounts proposed in the President's budget, \$37.6 billion in new loans would be made, guaranteed, or insured in the bank's six largest credit programs. By CBO's estimate, those transactions would show savings totaling \$1.4 billion on a FCRA basis and costs totaling \$0.2 billion using the fair-value approach (see Table 2).<sup>3</sup> If that same amount of activity occurred in subsequent years and had the same subsidy rates, the budgetary effect of those transactions over the 2015–2024 period would be savings of about \$14 billion using FCRA methodology and costs of about \$2 billion using the fair-value approach,

1. For further information about Ex-Im Bank's programs, see Shayerah Ilias, *Export-Import Bank: Background and Legislative Issues*, Report for Congress R42472 (Congressional Research Service, May 22, 2012).
2. See Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2015: Federal Credit Supplement* (March 2014) [www.whitehouse.gov/sites/default/files/omb/budget/fy2015/assets/cr\\_supp.pdf](http://www.whitehouse.gov/sites/default/files/omb/budget/fy2015/assets/cr_supp.pdf). The FCRA subsidy estimates in this testimony differ slightly from those in CBO's April 2014 baseline.
3. The budgetary costs and savings discussed here exclude administrative expenses, which are treated separately in the federal budget.

a difference of \$16 billion.<sup>4</sup> The average subsidy rate for all of the bank's programs combined is estimated to be negative 3.8 percent under the FCRA approach and positive 0.4 percent under the fair-value approach.

Each of Ex-Im Bank's six largest credit programs would generate a negative or zero budgetary cost on a FCRA basis, CBO estimates. On a fair-value basis, the estimated subsidy cost would increase for all programs and would be positive but less than 1 percent for most of them. However, the fair-value estimate for the Export Financing direct loan program is negative. Estimated fair-value costs for federal credit programs are usually positive or zero because otherwise borrowers would be able to attain more favorable terms from private financial institutions and would not use federal credit assistance. CBO's negative estimate for that specific program could arise because the program's administrative costs are not included in the projected cash flows used in this analysis, because private institutions face obstacles in making loans on the same terms, or because CBO's estimate understates the true subsidy cost.

Under FCRA accounting, the government's administrative expenses for credit programs are not included in the subsidy costs but instead are accounted for separately on a cash basis. To maintain consistency between FCRA and fair-value estimates, and because CBO did not have access to the data required to estimate administrative expenses for Ex-Im Bank's programs, CBO's fair-value estimates for Ex-Im Bank also exclude federal administrative costs. However, comprehensive fair-value estimates of subsidies for Ex-Im Bank's programs and other federal

credit programs would incorporate certain administrative expenses, such as servicing and collection costs, that are essential to preserving the value of the government's claims (rather than accounting separately for those costs on a cash basis).

## Background on the Cost of Market Risk

Loans and loan guarantees made by Ex-Im Bank and other federal agencies generally have significant exposure to market risk because borrowers default on their debt obligations more frequently and with greater severity (meaning that recoveries from the borrowers are lower) when the economy as a whole is weak. Such risk imposes a cost on investors because losses that occur when the economy is weak are occurring when resources are more highly valued. That cost is not included in FCRA-based estimates.

Some analysts argue that market risk associated with loans and loan guarantees is much less costly for the federal government than for private investors because of several inherent advantages of the government in extending credit. Specifically, some analysts contend that the federal government is better able to accommodate risk because it can spread risk more widely or because it can borrow money at interest rates that are lower than those available in the private sector. In addition, some analysts note that the federal government's costs of extending credit may be lower than the private sector's costs because the government has no obligation to earn a profit on its activities.

In CBO's view, those characteristics of the federal government do not alter the basic conclusion that the assumption of market risk imposes a cost on the government: The risk is effectively passed along to citizens who, as investors, would view that risk as costly.

To the extent that the federal government is able to spread certain risks more widely than the private sector can, the government may be a relatively efficient provider of credit assistance—leaving aside other considerations. However, even if the federal government can spread risks widely, it cannot eliminate the component of risk that is associated with fluctuations in the aggregate economy (market risk), and that risk is costly to the taxpayers and beneficiaries of government programs who ultimately bear it.

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4. The small positive fair-value subsidy cost for Ex-Im Bank's programs in this testimony contrasts with CBO's estimate in June 2012 of a negative fair-value subsidy cost for Ex-Im Bank's programs. See Congressional Budget Office, *Fair-Value Estimates of the Cost of Federal Credit Programs in 2013* (June 2012), [www.cbo.gov/publication/43352](http://www.cbo.gov/publication/43352). That difference stems mainly from the use of a higher discount rate for the long-term loan guarantee program, which increased the estimated subsidy cost for that program. Although the type of credit and loan maturity associated with the long-term guarantee program has not changed, the reported amount of projected defaults has increased: In the 2013 *Federal Credit Supplement*, the Administration reported an expected default rate of 1.35 percent, no recoveries, and a default subsidy cost (net of recoveries) of 1.29 percent for the long-term guarantee program, while in the 2015 *Federal Credit Supplement*, the expected default rate increased to 6.12 percent, recoveries increased to 66.93 percent, and default subsidy costs increased to 1.91 percent.

**Table 2.****Estimated Annual Loan Volume and Budgetary Costs of the Credit Programs of the Export-Import Bank of the United States Under FCRA and the Fair-Value Approach, 2015 to 2024**

(Billions of dollars)

Program Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total, 2015- 2024
<b>FCRA Subsidy Cost</b>											
Export Financing	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-2.8
Long-Term Guarantees	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-11.5
Medium-Term Guarantees	*	*	*	*	*	*	*	*	*	*	*
Medium-Term Insurance	*	*	*	*	*	*	*	*	*	*	-0.1
Short-Term Insurance	*	*	*	*	*	*	*	*	*	*	*
Working Capital Fund	*	*	*	*	*	*	*	*	*	*	*
<b>Total</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-14.4</b>
<b>Fair-Value Subsidy Cost</b>											
Export Financing	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-1.0
Long-Term Guarantees	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.7
Medium-Term Guarantees	**	**	**	**	**	**	**	**	**	**	**
Medium-Term Insurance	**	**	**	**	**	**	**	**	**	**	**
Short-Term Insurance	**	**	**	**	**	**	**	**	**	**	0.5
Working Capital Fund	**	**	**	**	**	**	**	**	**	**	0.3
<b>Total</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>1.6</b>
<b>Total Loan Volume</b>											
Export Financing	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	30.0
Long-Term Guarantees	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	245.6
Medium-Term Guarantees	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.9
Medium-Term Insurance	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.7
Short-Term Insurance	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	66.8
Working Capital Fund	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	29.6
<b>Total</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>37.6</b>	<b>375.6</b>

Sources: Congressional Budget Office (for subsidy estimates, using data supplied by the Export-Import Bank of the United States); Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2015: Federal Credit Supplement* (for commitments and obligations).

Notes: The table shows FCRA and fair-value estimates computed from projected obligations (for direct loans), commitments (for guaranteed loans), and cash flows for 2015 provided by the Administration's Office of Management and Budget and the Export-Import Bank of the United States, assuming reauthorization of the Export-Import Bank.

Subsidy costs exclude administrative expenses.

Numbers in the table may not add up to totals because of rounding.

FCRA = Federal Credit Reform Act; \* = between -\$50 million and zero; \*\* = between zero and \$50 million.

The federal government's ability to borrow at Treasury rates also does not reduce the cost to taxpayers of the market risk associated with federal credit programs. Treasury rates are relatively low because Treasury securities are backed by the government's ability to raise taxes and reduce other spending. When the government finances a risky loan by selling a Treasury security, it is effectively

imposing risk on some members of the public: If such a loan is repaid as expected, the interest and principal payments cover the government's obligation to the holder of the Treasury security, but if the borrower defaults, the obligation to the security holder must be paid for either by raising taxes or by cutting other spending. (Issuing additional Treasury debt to repay the outstanding debt



can postpone but not avert the need to raise taxes or cut spending.) Thus, the risk is effectively borne by taxpayers or beneficiaries of government programs. Like investors, taxpayers and government beneficiaries generally value resources more highly when the economy is performing poorly.

The view that the federal government is a low-cost provider of credit because it does not need to make a profit rests on the notion that the price paid for market risk represents a type of profit rather than compensation for risk. However, economists view “economic profits” as arising only when the return on private investment exceeds what investors in a competitive market would require. That is, an economic profit is earned when the expected return more than compensates investors for the fact that money in hand now is worth more than the same amount received in the future *and* for bearing market risk. For instance, when a business has a monopoly over a product, it can set prices above costs to earn an economic profit. In competitive financial markets, the presence of many buyers and sellers of financial assets tends to eliminate economic profits, and the risk premium that remains is compensation to investors for bearing the risk.

Thus, those differences between the federal government and private investors do not change the fact that financial transactions whose returns are correlated with the performance of the economy impose a risk on taxpayers and beneficiaries of government programs that is costly for them to bear.

## Background on the FCRA and Fair-Value Approaches

The FCRA and fair-value approaches specify that the subsidy cost of credit assistance is to be calculated and recorded on an accrual basis—unlike most items in the federal budget, which are shown on a cash basis. The main distinction between accrual and cash accounting is that under cash accounting, expenditures and receipts are recorded in the years when payments and collections occur, whereas under accrual accounting, the estimated lifetime costs of an activity are recorded at the time that resources are firmly committed. (A system of supporting accounts is used to reconcile FCRA accruals with the cash flows associated with credit programs.)<sup>5</sup>

One advantage of accounting for credit programs on an accrual basis is that it eliminates the incentive that would exist under cash accounting to favor loan guarantees over

economically equivalent direct loans. On a cash basis, loan guarantees often would appear to be much less expensive than direct loans with the same default risk and other expected outcomes because guarantee fees are collected when loans are originated but defaults usually occur much later in the life of loans. In contrast, the initial outlay of principal for direct loans occurs in the current year, whereas the return of that principal and many of the interest payments usually do not occur until many years later.

Compared with FCRA accounting, fair-value accounting more fully incorporates the cost to the government (and, by extension, taxpayers and beneficiaries of government programs) of the risks inherent in federal credit transactions. However, the Congress and federal agencies would confront several challenges in adopting fair-value accounting on a widespread basis.<sup>6</sup>

### How the FCRA Approach Works

Under FCRA, the subsidy cost of a direct loan or loan guarantee is calculated as a present value of expected net cash flows over the life of the loan; that present value depends on various factors, including the discount rate that is used to translate future cash flows into current dollars. FCRA subsidy costs are estimated by discounting expected net cash flows to the time of loan disbursement using interest rates on Treasury securities of comparable maturities.<sup>7</sup> For example, cash flows a year after disbursement are discounted using the rate on Treasury securities with one year to maturity, and those five years out are discounted using the five-year Treasury rate.

For loan guarantees, expected cash flows include expected payments by the government to cover default or delinquency, offset by any expected payments to the government, including origination fees, other fees, penalties, and recoveries on defaulted loans. For direct loans, expected cash flows include loan disbursements and expected payments of interest and repayments of principal (after accounting for expected defaults, recoveries, and prepayments), fees, and penalties.

5. See Office of Management and Budget, *Circular A-11* (2011), Part 5: Federal Credit, [www.whitehouse.gov/omb/circulars\\_a11\\_current\\_year\\_a11\\_toc](http://www.whitehouse.gov/omb/circulars_a11_current_year_a11_toc).

6. See “Special Topics,” *Budget of the United States Government, Fiscal Year 2013: Analytical Perspectives*, pp. 373–379, [www.whitehouse.gov/omb/budget/Analytical\\_Perspectives](http://www.whitehouse.gov/omb/budget/Analytical_Perspectives).

7. Section 504(d) of FCRA, 2 U.S.C. §661c(d) (2012).

### How the Fair-Value Approach Works

The fair value of a loan is the price that would be received if the loan were sold in what is known as an orderly transaction—one that occurs under competitive market conditions between willing participants and that does not involve forced liquidation or a distressed sale.<sup>8</sup> Similarly, the fair value of a loan guarantee is the price that would have to be paid to induce a private financial institution to assume the guarantee commitment. FCRA and fair-value estimates incorporate the same projections of future cash flows. But instead of using Treasury rates to discount those cash flows, fair-value estimates employ discounting methods that are consistent with the cost to private market participants of the risk of the loan or loan guarantee.

As an example of the difference between the FCRA and fair-value approaches to estimating the federal budgetary cost of a financial transaction, consider the following: Suppose that the federal government purchased a loan that had been made previously to a private business and that the purchase occurred in a well-functioning private market so the government paid a price that reflected market participants' views of the value of the loan. Under the FCRA approach, a cost estimate for that transaction would show budgetary savings because the FCRA procedure places greater value on cash flows to be received in the future than do the market participants who determined the purchase price; the loan would appear to be more valuable to the government than to others, even though nothing about the expected cash flows had changed. Essentially, the transaction would appear to reduce the budget deficit because the risk being transferred from the private sector to the government would appear to have no cost. By contrast, under the fair-value approach, a cost estimate for that transaction would show no budgetary impact because the fair-value procedure—by construction—places a value on those cash flows equal to that assessed by market participants. With this approach, the risk being transferred from the private sector to the government would be assigned the cost perceived by the private sector.

8. See Financial Accounting Standards Board, *Original Pronouncements, as Amended. Statement of Financial Accounting Standards No. 157: Fair Value Measurements* (Norwalk, Conn.: Financial Accounting Foundation, 2010), [www.fasb.org/pdf/aop\\_FAS157.pdf](http://www.fasb.org/pdf/aop_FAS157.pdf). The standard is now reflected in Accounting Standards Codification 820.

Fair values for government loans and loan guarantees can be estimated in different ways. One way is to base estimates on the market prices of similar products offered by private companies—for example, the interest rates charged on private-sector loans to students can be combined with other information to infer a risk premium for federal student loans. Another way is to employ standard financial valuation techniques, such as discounting expected cash flows with risk-adjusted discount rates or using an options-pricing model—a type of model that many private-sector practitioners use to evaluate guarantees. CBO has applied each of those methods in various analyses of credit programs; the choice of methodology has depended on which approach was deemed to produce the most reliable estimates given the characteristics of the obligations being evaluated and the information available.<sup>9</sup>

In private-sector uses, such as in financial reporting by large financial institutions, fair values are based on actual market prices whenever reliable prices on comparable credit products are available. However, when comparable products are not publicly traded—or during a financial crisis, when transactions are usually rare and at distressed prices—fair values are approximated.

### Potential Drawbacks of the FCRA Approach

One consequence of using Treasury rates to estimate the cost of federal credit assistance is that some large credit programs, such as the Federal Housing Administration's mortgage guarantees and the federal direct student loan programs, appear in some years to make money for taxpayers. If, instead, the discount rates used in calculating the present values of cash flows for those programs included a market risk premium, budgetary figures for those programs might show a net cost for taxpayers. Thus, FCRA accounting creates a budgetary incentive to expand the programs beyond the scale that would be chosen if the budget reflected comprehensive estimates of the costs of those programs.

In the case of certain other credit programs, the federal government sets interest rates and fees to eliminate any

9. For additional information on alternative approaches to calculating the fair value of federal credit programs, see Deborah Lucas and Marvin Phaup, "The Cost of Risk to the Government and Its Implications for Federal Budgeting," in Deborah Lucas, ed., *Measuring and Managing Federal Financial Risk* (University of Chicago Press, 2010), pp. 29–54.

budgetary cost. Because the cost of market risk is not considered in FCRA-based estimates, the government offers credit through those programs on terms that are generally more favorable than would be offered by even the most efficient and competitive private financial institutions. When the government is not truly more efficient than the private sector at providing credit, those more-favorable terms constitute an unrecognized subsidy to borrowers and a hidden cost to the government.

Even when a credit program has a budgetary cost under FCRA, neglecting the market price of risk lowers the reported cost relative to that of a grant or benefit payment with the same cost measured at market prices, which could distort policymakers' decisions. For example, if policymakers were considering providing assistance to low-income homebuyers either through grants that cover down payments or through loan guarantees that subsidize borrowing, FCRA accounting would make the loan program appear less costly than the grant program even if the programs were designed to have the same cost measured at market value.

In addition, FCRA estimates could provide misleading information about the costs of buying, selling, or holding loans. Under FCRA, selling a loan at a competitive price to a private purchaser would produce an estimated budgetary loss because the proceeds of the sale would be less than the value that the government assigns to holding the loan (apart from possible indirect effects that would occur as a result of the sale). Conversely, the purchase of a loan at a market price would show an estimated budgetary gain.

### **Potential Drawbacks of the Fair-Value Approach**

As discussed above, federal loans and loan guarantees have returns that are correlated with the performance of the economy and thereby impose a risk on taxpayers and beneficiaries of government programs that is costly for them to bear. Fair-value estimates incorporate the cost of that risk using market prices and, in CBO's view, therefore provide a more comprehensive measure of the costs of federal credit programs. However, some analysts have expressed concerns about potential drawbacks of using the fair-value approach in federal budgeting.

One such concern is that fair-value estimates of the cost of federal credit programs include costs that will not be paid directly by the federal government if actual cash flows turn out to match expected cash flows. Suppose, for

example, that the government borrowed funds to make loans to individuals for some purpose, that cash flows to and from the borrowers turned out to match CBO's expectations, and that future Treasury rates turned out to match the rates that CBO used in constructing FCRA estimates. Then, if there were no offsetting changes elsewhere in the budget, the program would increase or decrease future federal debt by roughly the future value (calculated using FCRA discount rates) of the estimated cost of the program on a FCRA basis—and by less than the future value of the estimated cost on a fair-value basis.<sup>10</sup> Estimates of the costs of noncredit programs are, like FCRA estimates, indicators of the effect of those programs on future federal debt (excluding debt-service costs). This line of reasoning might suggest that, by increasing the estimated budgetary cost of credit programs, the fair-value approach makes comparisons with estimated costs for noncredit programs more difficult and disadvantages credit programs in the competition for budgetary resources.

In fact, in some cases, using the more comprehensive estimates produced under the fair-value approach enhances the comparability of estimates of the costs of credit programs with estimates of the costs of other credit programs and noncredit programs. For example, when comparing a proposal to provide loan guarantees for home mortgages to a proposal to provide grants for people to use in reducing the down payments on their mortgages, using a fair-value estimate for the loan guarantees allows for a more accurate comparison with the estimated cost of the grants. However, for some other comparisons, using fair-value estimates for credit programs reduces the comparability of those estimates with estimates for noncredit programs. For example, when comparing the proposal to provide loan guarantees to one that would provide additional unemployment insurance benefits, using a fair-value estimate for the proposal with loan guarantees produces a less accurate comparison, because unemployment insurance imposes market risk on the government that is not reflected in a standard estimate of the budgetary cost of that insurance.

As a general matter, the usefulness of different approaches for constructing estimates of the costs of federal policies depends on the purpose for which those estimates are

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10. Under both FCRA and fair-value accounting, reconciling the government's cash flows with costs estimated on an accrual basis requires supporting budgetary accounts.

used. Fair-value estimates may be less useful than FCRA estimates in projecting the average budgetary effects of programs that provide credit assistance. But projecting such effects is not the only, or necessarily even the primary, purpose of cost estimates. Cost estimates are tools that policymakers can use to make trade-offs between different policies that work toward a particular policy goal. By taking into account how the public assesses financial risks as expressed through market prices, fair-value estimates may be more useful than FCRA estimates in helping policymakers understand trade-offs between policies when some of them involve such risks.

Another concern raised by some analysts is that incorporating the cost of market risk into budgetary estimates would tend to increase the volatility of those estimates over time because the cost of market risk is not constant. However, the additional volatility that would be introduced would generally be less than the considerable volatility of FCRA estimates that is attributable to fluctuations in Treasury rates, swings in projected defaults, and administrative changes in fees and other terms of loans. For example, CBO's fair-value estimates of costs for the Troubled Asset Relief Program have changed considerably over time, but those changes have been primarily the result of changes in the components of the estimates that also would have been used in FCRA estimates, such as projections of participation rates in government programs and projections of repayment rates on loans.

A further concern that is sometimes expressed about the fair-value approach is that, because most government credit programs have no exact analogue in the private sector, estimating their fair value may involve considerable analytical judgment. Indeed, to construct fair-value estimates, analysts need to make judgments about the amount of market risk in different types of loans and loan guarantees, and they sometimes need to make adjustments for cost differences between the government and the private sector, such as the government generally spending less on marketing than the private sector. Mistaken judgments about those and other factors could generate inaccuracies and inconsistencies in the treatment of different programs.

That complexity also makes it more difficult to communicate to policymakers and the public about fair-value estimates. FCRA and fair-value estimates alike depend on analysts' projections of such variables as prepayment

patterns, default rates, and the amounts recoverable after a default. However, fair-value estimates would depend on market risk premiums in addition to estimates of cash flows, and the basis for choosing those premiums might be difficult to explain.

Such concerns about possible inconsistencies and communication challenges could be addressed in various ways. One approach would be to use accounting practices similar to those used to audit fair-value estimates produced by private financial institutions. Guidelines also could be established by the Office of Management and Budget (OMB) or through legislation to ensure that the choices of discount rates and other assumptions that are used in valuation models followed systematic procedures and could be adequately verified. Briefing sessions for the staff of the Congress and federal agencies as well as development of materials that explained how estimates were derived would facilitate communication about the approach in general and about specific estimates.

Adopting fair-value accounting for federal credit programs would entail additional effort and expense for government agencies—particularly OMB, which oversees the process of estimating the costs of such programs. Start-up expenses of implementing the fair-value approach would include funding for additional training and possible expansion of staff, for redesign of procedures and account structures, and for development of models and approaches for producing estimates. Even over the long term, some additional resources would probably be needed because of the greater complexity of producing fair-value estimates. Failure to provide the necessary funding, both for start-up costs and for the continuing costs of using fair-value accounting, could leave policymakers with insufficient information for making choices about federal credit assistance.

### **Whether and How to Account for Administrative Costs**

FCRA accounting separates the administrative expenses of federal credit programs from the programs' subsidy costs, and it accounts for administrative expenses on a cash basis. The resulting mix of cash and accrual accounting, and the use of multiple accounts, makes it difficult to assess the total costs of each federal credit program and to compare costs across programs.

Comprehensive fair-value estimates of subsidies for credit programs would incorporate certain administrative

expenses, such as servicing and collection costs, that are essential to preserving the value of the government's claims (rather than accounting separately for those costs on a cash basis). Those essential preservation expenses can differ significantly among credit programs, and including them in subsidy estimates would make comparing subsidy costs across programs easier. However, doing so could erode Congressional control over program expenditures. Appropriations to cover credit subsidies could provide upfront funding for certain administrative costs that might span many years and be spread among different types of loans and guarantees. At the same time, other administrative costs would be funded through annual appropriations. Determining which expenses belong in which category would probably be difficult. Under such a system, the Congress and the affected agencies might be unsure how much funding was available in any particular year for servicing or loan collection. In addition, current law provides an indefinite appropriation for increases in estimated costs after a loan or loan guarantee is initiated.<sup>11</sup> Including some administrative

expenses in subsidy estimates would make that indefinite appropriation available for those expenses as well.

In addition, although including administrative costs in subsidy estimates would improve comparability between credit programs, in some instances it might hinder the ability to compare credit assistance and grant programs. Grant programs also incur administrative costs, and those costs are not readily linked to the funds disbursed in any one year. Including all administrative costs in credit programs but not in grant programs could reduce comparability between the two. However, if the adjustment was just for essential preservation expenses in credit programs, comparability with grant costs could be improved because grant recipients generally do not need to repay the government in future years and, hence, few preservation expenses are associated with most grants.

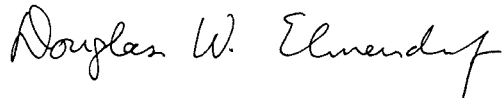
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11. Section 504(f) of FCRA, 2 U.S.C. §661c(f) (2012).

## About This Document

This testimony draws upon several previous CBO reports—with contributions from Sunita D’Monte, Mark Hadley, Sarah Jennings, Wendy Kiska, Deborah Lucas (formerly of CBO and currently a consultant to the agency), Mitchell Remy, and David Torregrosa—and was prepared with guidance from Damien Moore. Peter Fontaine and Theresa Gullo provided helpful comments. In keeping with CBO’s mandate to provide objective, impartial analysis, this testimony contains no recommendations.

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