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## House Bill Would Artificially Inflate Cost Of Federal Credit Programs

by Richard Kogan, Paul Van de Water, and James Horney

The House Budget Committee may consider legislation in the near future that would change the federal accounting of direct loans and loan guarantees in ways that would overstate the federal costs of those programs. As a result, the legislation also would overstate total federal spending and deficits.

The Federal Credit Reform Act of 1990 changed the budgetary accounting of federal credit programs. Previously, the budget displayed the costs of credit programs in the years those costs actually occurred; that is, it showed federal expenditures from loans or guarantees in any particular year, offset by loan repayments in that year. Since the 1990 law, the budget displays the same total net costs of loans or guarantees but shows them up front — when the government issues the loans and loan guarantees — rather than year by year over the course of their lifetimes.

The legislation — H.R. 1872,<sup>1</sup> introduced by Rep. Scott Garrett (R-NJ) and co-sponsored by House Budget Committee chair Paul Ryan (R-WI) — would significantly change the rules in place since the 1990 law. It would require the Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) to *add an extra amount* to the budgetary cost that they show for loan and guarantee programs, based on the additional amount that private lenders would charge borrowers if they, rather than the federal government, issued the loans and loan guarantees. By overstating the federal costs of credit programs, the proposal would overstate federal deficits and force budget documents to offset these phantom costs with phantom offsets to avoid overstating the debt as well.

This proposal is *not* based on any claim that current estimates of the federal outlays and receipts associated with federal credit programs understate the actual federal costs of these programs. Quite the contrary; by requiring CBO and OMB to add an extra amount to their estimated cost of federal credit programs, the legislation would artificially inflate the programs' estimated budgetary cost. Consequently, the budget treatment of federal credit programs under H.R. 1872 would conflict with the basic purposes of budgeting and with the way that budgets record all other activities.

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<sup>1</sup> H.R. 1872 is identical to H.R. 3581 from the 112<sup>th</sup> Congress, approved by the House Budget Committee on January 24, 2012 and by the House of Representatives on February 7, 2012. It is very similar to section 4 of S. 1651, 112<sup>th</sup> Congress, introduced in October 2011 by Sen. Jeff Session (R-AL).

## Credit Accounting Under Current Law

The federal budget generally records revenues and spending on a cash basis. That is, the cost recorded for a program in a fiscal year is the actual cash spent on that program in that year, and the budget deficit for a year is the difference between total cash expenditures for all programs in that year and the total amount of cash collected as revenues in that year.<sup>2</sup> By 1990, however, there was widespread agreement that showing the effect of government credit programs on a cash basis did not facilitate a meaningful comparison between the costs of credit programs and other programs, or between the cost of direct loans and loan guarantees.

The problem was not that incorrect amounts of cash disbursements and receipts were being recorded for credit programs. The problem, rather, was that for those programs, showing cash transactions *when they occurred* did not provide policymakers considering whether to cut, maintain, or increase those programs with meaningful information about the cost of their decisions over time.

### Loans and Loan Guarantees Formerly Recorded on Cash Basis

Before the Credit Reform Act, a \$100 direct loan was shown in the budget as costing \$100 in the year the loan was made. The cash the government subsequently received when the borrower repaid principal and interest was recorded in subsequent years, as those payments were received. As a result, a \$100 *loan* in the coming fiscal year appeared to have the same budgetary effect as a \$100 *grant* in the same year, even though the loan had a significantly smaller true impact on the budget than the grant, since all or a substantial portion of the loan would be repaid in subsequent years.

In contrast, a federal *guarantee* of a \$100 loan appeared under the pre-1990 budget rules to produce *income* for the government in the year that the guarantee was issued. Federal loan guarantee programs generally require borrowers to pay an up-front premium or origination fee. That premium (for instance, \$5 on a \$100 loan) was recorded as income to the government in the fiscal year the guarantee commitment was made, while federal disbursements to cover the guarantee if the borrower later defaulted were recorded as spending in future years, if and when a default occurred. Thus, even if the chance of default was high, the loan guarantee looked like a savings for the government, rather than a cost, in the year the guarantee was issued.

### Credit Reform Act Records Full Costs of Loans When They Are Made

To make the budgetary effects of loans and loan guarantees comparable with each other — and with other federal spending programs — the Credit Reform Act of 1990 established rules for recording the full lifetime cost of loans and loan guarantees in the year that they are made. Essentially, the cost recorded for making a direct loan is the cash disbursement of the loan, minus the present value of the estimated repayments of interest and principal that will be received over the life of the loan. This estimate takes into account the terms of the loan (including the interest rate and repayment schedule), as well as the risk that the borrower will default on the loan before it is paid off. If the interest rate is low or the borrower is likely to default, the cost to the government will be higher than if loan charges a higher interest rate or goes to a more credit-worthy borrower.

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<sup>2</sup> Aside from credit programs (as explained in this analysis), there are only a few instances — such as the recording of some Treasury interest costs when they accrue rather than when they are paid — in which the budget records spending on other than a pure cash basis. And in those cases, the only change is to timing, not total amount.

To take account of the time-value of money, the interest and principal payments received over the course of the loan are discounted at the Treasury's cost of borrowing. The time-value of money reflects the fact that \$100 today is worth more than \$100 ten years from now. This can easily be illustrated by the fact that if you receive \$100 this year, you could invest that \$100 in ten-year U.S. Treasury notes. If the interest rate is 3.2 percent and you re-invest your interest earnings in Treasury notes, you will end up with \$137 after ten years: \$100 now is worth more than \$100 in ten years.

The Credit Reform Act takes a similar approach with loan guarantees. The budget records the up-front cost of a loan guarantee as the difference between (1) any up-front premium that the borrower pays the government when the loan-guarantee commitment is made; and (2) the present value of the government's estimated cost of covering future defaults (reduced by any proceeds the government is estimated to receive by selling any collateral it acquires when a default occurs).

The key here is that the cost recorded in the budget reflects *up front* the estimated cash flows related to the loan or loan guarantee *over the course of the loan*. For other programs, in contrast, cash flows are shown when they occur. Thus, the Credit Reform Act did not change the recorded *cost* of credit programs, which derives from the actual cash the government pays and receives; it only changed the *years* in which those costs were recorded.<sup>3</sup>

It should be emphasized that the estimated costs of loans and loan guarantees, under either the old or the new accounting, take full account of so-called default risk — the likelihood that some direct loans will not be paid back in full or that a borrower will default on a loan that the federal government has guaranteed.<sup>4</sup>

## **Proposal Would Add a Further Amount to Reflect Private-Sector Loss Aversion**

Even as the Credit Reform Act was being debated, some argued that its method of calculating the cost of credit programs understated the “true” cost of credit programs in a broader societal sense because it reflects the cost to the federal government rather than what similar loans or loan guarantees would cost in the private market. The government's cost of making a loan is less than that of a private lender because it can borrow more inexpensively.

Since 1990, this argument has been refined, particularly in work by Deborah Lucas and Marvin Phaup.<sup>5</sup> Lucas and Phaup argue there is an additional “cost” of credit programs that is not reflected in estimates of the cash flows in and out of the Treasury resulting from loans or loan guarantees.

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<sup>3</sup> Before credit reform was enacted in 1990, all the various cash flows of a credit program were shown in the year that they occurred, and Treasury debt increased or decreased (as did interest payments) as cash left the government or flowed back to the government. When the loan finally matured, the sum total of all the cash transactions including interest equaled the amount by which the debt held by the public had increased as a result of the loan's issuance. Credit reform aggregated these credit transactions into a single subsidy cost shown up front. After a loan matures, the sum of that subsidy and the interest that the Treasury has paid on the money it borrowed to finance that subsidy is exactly the same as the amount that would have been recorded in the budget before the Credit Reform Act; it represents the amount by which the debt held by the public increased. Thus, credit reform did not change the recorded lifetime budgetary cost of credit programs; it simply shifted the *timing* of when that cost is recognized. The net cost is now shown up front so Congress can better see it at the time it votes to impose that cost.

<sup>4</sup> Estimates are based on calculations for a class of similar loans or guarantees, not for individual loans or guarantees.

<sup>5</sup> Deborah Lucas and Marvin Phaup, “Reforming Credit Reform,” *Public Budgeting & Finance*, Winter 2008, pp. 90-110.

They point out that the loan costs would be higher if the private sector made the loans, due to the variability of the cash flows associated with loans and the fact that private individuals are loss averse, as explained below. They argue that the federal budget should show what the loans and loan guarantees would cost if made in the private sector, rather than what it costs the government to make them.

The credit cash flows are variable because it is impossible to know with certainty exactly how much will be repaid on a given loan (or class of loans), since that figure reflects how many borrowers will default and what collateral the government might acquire after a default. As a result, the actual collections flowing from any direct loan or class of direct loans and the actual guarantee payments required to indemnify a lender in the case of defaults on federally guaranteed loans may be higher or lower than originally estimated.

This variability does *not* mean that the original estimates of the cash flows in and out of the Treasury due to a credit program were faulty and didn't fully reflect the likelihood of default. It simply reflects the inherent uncertainty of the cash flows. To understand this, consider what happens when a coin is flipped 100 times. We know the best estimate is 50 heads, 50 tails. But if this exercise were repeated thousands of times, the result would rarely be exactly 50 heads out of any 100 flips. The average — or expected value — would be 50 heads, but most of the time there would be more or fewer than 50 heads.

Lucas and Phaup do not contend that the current estimates of the cost of credit programs misrepresent the cash flows related to loans and guarantees; they do not claim that CBO and OMB underestimate the true expected value of the cash flows. Their argument is different: that regardless of whether the estimates of the cash flows are the best ones possible — indeed, even if they perfectly represent the expected cash flows — the method of calculating the cost of credit programs under the Credit Reform Act does not reflect the full “cost” for a different reason.

Lucas and Phaup base their argument on the variability of the actual cash flows and how individuals respond to risk in financial arrangements. Research has found that private individuals are *loss averse*; for example, they generally appreciate an unexpected gain of \$100 *less* than they dislike an unexpected loss of \$100. As a result, people are unwilling to accept a financial arrangement with variable outcomes at a price that only represents the expected value (or best estimate) of the outcome.

Most financial economists use the term “risk aversion” as a synonym for “loss aversion.” They describe markets as being “risk averse” and investors as demanding a “risk premium” before they are willing to put their money on the line; they say the premium reflects “market risk.” This phrase does not mean that investors are averse to losses (of course they are), but rather that they are more averse to losses than they are attracted by *equally likely gains of the same magnitude*.

Because individuals are loss averse, Lucas and Phaup argue, the government should be loss averse as well, on their behalf. That means the cost of credit programs should appear in the federal budget as *exceeding* the best estimate of their actual cost to the Treasury (that is, as exceeding the best estimate of the cash flows that will result from the loans and guarantees). As they put it, “[I]ncluding a risk premium in subsidy cost produces a cost estimate that, on average, exceeds outlays for realized

losses.”<sup>6</sup> Because the government should be loss averse, they believe, it should be considered as losing *more* if collections turn out lower than estimated than it will gain if collections turn out higher than estimated. They argue that this loss aversion should be converted into a dollar figure and added to the cost of credit programs shown in the federal budget, as well as to the cost of legislation related to credit programs.

Lucas and Phaup would have the government calculate this extra “cost” by estimating what private markets would charge to issue or guarantee the same set of loans. They would estimate, for example, how much the private sector would pay to acquire the government’s portfolio of direct student loans. Presumably, loss-averse private investors would value the portfolio at a lesser amount than the government is expected to collect in loan repayments (after fully accounting for expected defaults and for the time-value of money).<sup>7</sup> They would then add this extra “cost” — a loss-aversion penalty — to the actual cost to the government of the loans and guarantees.

To do this, H.R. 1872 defines two separate costs: (a) the government’s actual cash cost in operating credit programs, as calculated under the existing Credit Reform Act rules; and (b) the *additional* amount associated with loss aversion on the part of private investors. The bill would require the federal budget to treat the *sum* of these two amounts as the cost of a credit program, thereby raising the apparent cost of the program and legislation related to it.

## Why the Proposal Is Flawed

This legislation suffers from several serious flaws.<sup>8</sup>

### Loss Aversion Is Not a Budgetary Cost

Most fundamentally, the problem with adding a loss-aversion penalty to the cost shown in the budget for loan and loan guarantee programs is that *loss aversion is not, in fact, a budgetary cost*. The loss-aversion penalty that Lucas and Phaup propose and H.R. 1872 would require would reflect amounts that the government would *never actually pay to anyone*. The obvious question then is: why should the budget record loss aversion as a cost when the government never pays that cost?

Answering this question requires thinking about what the budget is supposed to do. For over 200 years, the answer has been that the federal budget is supposed to record the amount that the government disburses on spending programs and the amount it receives in revenues, and to show the difference as a surplus or deficit (and to the extent that deficits have exceeded surpluses, to cover the difference by borrowing and to record that borrowing as debt). To meet this purpose, the budget must measure accurately the amounts actually spent on programs and the amounts actually collected in taxes and fees, and the resulting deficits and debt — what budget analysts call the nation’s fiscal position.

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<sup>6</sup> Lucas and Phaup, page 92.

<sup>7</sup> In the same vein, if the government tried to purchase reinsurance from the private sector to cover the defaults associated with a government portfolio of loan guarantees, a loss-averse private investor would charge more to reinsure that portfolio than a perfect estimate of what the government, after accounting for the time-value of money, will actually have to pay on the defaults.

<sup>8</sup> The authors are indebted to an article by David Kamin, “Risky Returns: Accounting for Risk in the Federal Budget,” May 2012, for its presentation of the arguments against including nonbudgetary costs of credit programs in the federal budget. Available at <http://ssrn.com/abstract=2039784>.

Adding a loss-aversion penalty to the spending side of the budget would add an extra “cost” that the government does not actually incur — and that doesn’t need to be covered by additional taxes or borrowing. It would consequently cause the budget to mis-measure deficits and debt and no longer serve the basic purpose of accurately presenting the nation’s fiscal position. With respect to nation’s fiscal position, a risk-aversion penalty is a *phantom cost*.

### **Proposal Does Not Treat All Programs the Same**

Another problem with the proposal is that it would result in inconsistent and discriminatory budgetary treatment of different categories of federal programs. To help Congress and the nation allocate public resources among competing priorities, the budget should record the costs of all government programs in the same way. It is essential that \$100 in costs for one program mean the same thing as \$100 in costs for another program, so that policymakers can know how much cost a policy will impose on the Treasury as they decide how to allocate resources.

H.R. 1872 violates this principle. It would make credit programs appear more expensive to the government than they truly are without making similar adjustment for other programs whose actual costs also are uncertain and variable. Much of the budget involves programs whose costs are only known for certain after the fact — that is, programs for which the best, unbiased estimates of expected costs nevertheless entail uncertainty, and for which actual costs will almost certainly turn out to be either lower or higher than the original estimates. Social Security and Medicare are two examples. Even some programs for which fixed rather than variable dollars are appropriated, such as weapons procurement, involve uncertainty because it is never known whether the items will end up costing more or less than budgeted, and Congress almost always feels it has to cover any shortfalls. Similarly, the costs of existing or proposed tax expenditures are often as uncertain as the costs of traditional spending programs.

If policymakers add a loss-aversion penalty to credit programs, they should add one to *all* other variable and uncertain costs as well. Not doing so would disadvantage credit programs relative to other forms of government assistance or investment and would distort the budget as a tool for allocating public resources.

### **Phantom Costs Require Phantom Offsets**

Since the loss-aversion penalty that H.R. 1872 would mandate would not reflect the amount the government actually spends, recording these phantom costs would cause the budget to display a spending total that *exceeds* what the Treasury pays out. The budget’s deficit figures would also be overstated, since they would exceed the true difference between actual expenditures and actual revenues. Similarly, the amount of debt held by the public would be inaccurate, since it would be higher than the amount the Treasury actually has borrowed.

To avoid some of these bizarre results, advocates of adding a loss-aversion penalty tacitly or explicitly advocate accompanying that adjustment with a *phantom offset*. Proposing offsets to prevent the deficit and debt figures from being out of whack essentially acknowledges that the government will not actually incur the additional “cost” they would require to be shown for credit programs.

The obviously unsatisfactory nature of these phantom offsets, which are described below, underscores the point that the budget should measure actual costs and receipts and should not

include either phantom costs or phantom offsets. And it concedes our point that H.R. 1872 is *not* about generating more accurate and unbiased estimates of likely defaults.

- Lucas and Phaup propose recording a phantom tax receipt equal in size to the phantom loss-aversion penalty they propose for the credit programs. In other words, the budget would show both more spending than the Treasury actually spends *and* more tax revenues than it actually collects, in order to keep annual deficits and total debt from being inaccurate. (Note that under this approach, an increase in a credit program would be shown as increasing *revenues* as well, and hence would run afoul of “no tax” pledges and be unconstitutional under versions of the Balanced Budget Amendment that bar increases in taxes.)
- OMB’s recent experience with a mandate to display phantom costs demonstrates how hard it is to make sense of the results. Specifically, a provision of the 2008 Troubled Asset Relief Program (TARP) required that OMB record a loss-aversion penalty on top of TARP’s expected effects on government cash flows. But that legislation failed to specify an offset. OMB handled this in two ways. First, to avoid overstating the deficit, it created a phantom offset — lower interest payments on the debt, spread over time. In other words, over the lifetime of the portfolio of assets that Treasury might acquire under TARP, OMB showed a figure for interest costs lower than the true amount of interest that OMB expected Treasury to pay. This produced an incoherent result: TARP’s increase in up-front spending and deficits was shown to *reduce* interest costs. But at least the budget totals for government spending (counting interest), deficit, and debt would be correct over time. Second, OMB proceeded to unwind this phantom scorekeeping in each subsequent year by re-estimating downward each year both the loss-aversion penalty and the offsetting interest-payment adjustment.
- H.R. 1872 adopts a different approach. It requires that the phantom cost *not* be offset by phantom revenue increases or phantom interest reductions, thus leaving the recorded amount of federal spending — and the recorded deficit figures — at permanently inflated levels. Rather, it directs OMB to ignore the phantom increase in the deficit when recording the debt; in effect, it creates a phantom offset that would prevent the *debt* from being recorded too high even though the annual *deficits* would consistently be overstated. One result of this approach is that the sum of deficits over time would diverge more than it already does from the amount of debt held by the public.

### **Government May Be Less Risk Averse than Individuals**

The flaws discussed above explain why the basic concept of a budgetary loss-aversion penalty is wrong. But even if one believes that the government *should* add a loss-aversion penalty to its recorded costs, the government need not be *as* loss averse as private individuals.

Individuals are loss averse in part because they are likely to need their financial assets at specific times, even when the value of those assets has declined. They will need their savings when they retire, when their children are in college, or when they suffer a severe illness or disaster, and so cannot simply “ride out” a down financial market by borrowing instead of cashing in their assets. Put simply, individuals may be forced to “sell low” if they need cash when times are bad.

The general fund of the Treasury, in contrast, is rarely or never in that position because, as history shows, when times are bad it can borrow very inexpensively. (Consider the current low interest rates

the Treasury pays, which are near or below zero in real terms.) The government is thereby able to spread risk across decades or even generations, while individuals generally cannot.

## Is There a Place for a Loss-Aversion Estimate?

Estimates of the extent (if any) to which government credit activities impose a loss-aversion “cost” on taxpayers should not play a part in budget accounting, because they do not represent an actual government cost and their inclusion in the budget would mis-measure the government’s fiscal position and inappropriately bias policymakers against credit programs relative to other forms of aid. Nevertheless, the concept that governmental transactions can impose uncertainty or “risk” on the public is not without merit. To the extent that the government does not spread such uncertainty risk across generations (or ameliorate it by spreading it to well-off people, who are less loss averse), the concept of loss aversion can and should play a part in the *cost-benefit analysis* that policymakers should undertake in deciding whether a government program constitutes wise public policy.

*Cost-benefit analysis, however, is not budgeting.* A cost-benefit analysis serves a different purpose — to provide information on whether a program or project is worthwhile. To illustrate the difference between budgetary costs and cost-benefit analysis, consider two bridges, each of which would cost \$50 million to construct. A bridge from nowhere to nowhere is a waste of money, while a bridge connecting two bustling sister cities might have substantial economic and social benefits. The budget should reflect \$50 million in cost for each bridge — no more and no less — but a cost-benefit analysis that helps inform policymakers should take into account all of the pros and cons of the two bridges. In this context, loss aversion on behalf of the taxpayer, to the extent that it may exist, is a legitimate factor to include in the cost side of a cost-benefit analysis.

Under H.R. 1872, however, other important aspects of cost-benefit analysis would *not* be reflected as phantom budget costs — not the social costs and benefits of regulation, for example, nor the large risk-mitigation benefits of social insurance programs such as Social Security and Medicare. Just as most government spending programs have uncertain rather than fixed costs, they also have uncertain rather than fixed benefits.

This discussion raises a final point about the basic concept of a loss-aversion penalty in the budget. H.R. 1872 looks only at the uncertainty cost that a credit program might impose on risk-averse taxpayers, while failing to consider the benefits to risk-averse *borrowers* such as students, farmers, or homebuyers. If the subsidy cost under a loan program turns out to be higher than the original estimate, taxpayers will eventually have to cover the higher costs — but borrowers will have received more help. Put differently, the ability to borrow from the government creates a benefit (of an uncertain amount) for the borrower. To the extent that this benefit proves larger than expected, it may impose a social cost on risk-averse taxpayers, but it also confers a social benefit on risk-averse students, farmers, homebuyers, or other borrowers. *The proposed legislation would recognize only the costs, not the benefits.* Our view — that loss aversion can be one of a number of appropriate factors of cost-benefit analysis, but not of budget accounting — would still demand that *all* risk-aversion aspects of government programs be taken into account in a fair cost-benefit analysis.

Our conclusion is the same as Robert Reischauer’s, who stated that this proposal “would add a cost element from a traditional cost-benefit analysis without adding anything based on the corresponding benefit side of such an analysis. It would also make budget accounting less straightforward and transparent [and is] a misguided attempt to mold budget accounting to facilitate



a cost-benefit analysis, with the result that neither the budget nor the cost-benefit analysis would serve their intended purposes well.”<sup>9</sup>

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<sup>9</sup> Reischauer is a former President of the Urban Institute and a former Director of the Congressional Budget Office. Letter to Representative Chris Van Hollen, January 23, 2012; see <http://www.offthechartsblog.org/reischauer-strongly-opposes-house-bill-to-inflate-cost-of-federal-credit-programs/>.