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Federal Use of Implied Guarantees: Some Preliminary Lessons from the Current Financial Distress

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The U.S. financial crisis and recession that began in 2007 poses profound challenges for public policy and administration. It also provides useful information about the effects of economic policies. This paper considers the implications of current developments for the use of implied guarantees as an instrument of public policy. It draws on experience with Fannie Mae and Freddie Mac to argue that implied federal guarantees have a severe disadvantage. Their costs are largely unmeasured, unrecognized in the budget, and unmanaged. Yet their use appears to be increasing in the current crisis. To minimize the costs of the expanded financial safety net, government should measure and manage those costs more effectively. To that end, this paper proposes new budgetary treatments of federal implied guarantees.

Economic crises often impose big losses on society even as they provide useful opportunities to learn more about our economic systems and policies through observation under conditions of extraordinary stress. If past experience is a guide, the recent meltdown of the financial system will provide fruitful research material for years to come. However, even as events unfold, some preliminary implications for public policy and administration are emerging. Some observations are consistent with well-established theorems and principles. Others provide evidence bearing on hypotheses that are less firmly held.

This paper identifies some initial implications of the current financial difficulties for the use of implied guarantees by the federal government. In the past, implicit, as distinguished from explicit, guarantees have been synonymous with government-sponsored enterprises (GSEs) because the grant of

such guarantees is a defining characteristic of a GSE. That feature is significant because the costs of implied guarantees are invisible in the federal budget. And, while not every measured cost is managed well, few unmeasured and unrecognized federal costs are managed at all. Thus, a troubling aspect of current policy aimed at restarting the financial markets is the likely expansion of implied guarantees to include the obligations of additional private financial institutions.

Recent experience with the two GSEs for housing, Fannie Mae and Freddie Mac, which were among the principal beneficiaries of implied guarantees, may provide indications of the expected consequences of traditional and new implicit guarantees. That experience is consistent with the following, mostly cautionary, propositions:

- Federal guarantees of private obligations do not eliminate risk. They shift its incidence, or who bears it, from investors to taxpayers, who are less likely to be able to manage it.
- Implicit guarantees are costly to the grantor and its stakeholders. Even though the *merely* implied guarantee suggests that the government could choose to deny responsibility, a refusal to pay claims would be prohibitively costly to the government.
- The costs of implicit guarantees are especially vulnerable to increase from changes in the behavior of recipients (moral hazard) because government is unlikely to price the guarantee, recognize its expected cost in the budget, or adopt vigorous measures to control its cost while simultaneously denying that a guarantee exists.

The rest of this paper reviews current economic conditions and the federal policy response; describes the GSE structure

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and the meaning and value of implied guarantees; and evaluates the current and alternative budgetary treatments for the cost of implied guarantees, both before and after the failure of the guaranteed entity. It concludes that modifying the budgetary treatment of implicit guarantees to inform policy makers and stakeholders about their costs in a more timely manner is feasible.

Current Financial Conditions and Policies

The primary source of the current troubles is the burst of a housing price bubble that imposed massive losses on mortgage lenders, investors, and home owners (CBO 2008a; Woodward and Hall 2008). The shock of those losses to the economy has been magnified by the lack of transparency in the financial condition and the risk exposure of key market players. Many of the largest private institutions are insolvent or severely undercapitalized, but it is not possible for lenders and investors to reliably distinguish between good and bad credits. As a consequence, most firms are suspected of posing high credit risks. In such an environment, the markets for credit and equity are unable to function efficiently. Only strong sovereign borrowers and private entities with explicit government guarantees appear to have ready access to loan funds. The sharp reduction in the supply of credit and the attendant cutbacks in private spending threaten the real economy with a vicious downward spiral of rising unemployment, falling demand, and reduced production and income.

Current remedial policy consists of a smorgasbord of federal equity investment in threatened institutions, purchases of debt securities, massive lending by the Federal Reserve, and new guarantees issued by the Federal Deposit Insurance Corporation and the U.S. Treasury (Elmendorf 2009).

One tally puts the government's added credit risk at \$8 trillion (Andrews 2008). Effectively, the government is intermediating between holders of cash, who remain unusually risk averse, and those who need liquidity urgently. At the same time, the government is investing in private institutions in an attempt to restore their solvency and the functionality of financial markets. If successful, the latter policy would permit the government to withdraw from its role as an emergency, backup intermediary for private credit and capital markets.

A substantial risk exists, however, that the government's current policies to protect the creditors of "systemically sensitive" financial institutions will convey an enduring implied guarantee to a number of institutions that now appear too important to be permitted to fail (Wallison 2009). If the current crisis

increases the number of firms with implicit guarantees, the expected costs of those commitments will grow over time but, under current budget policy, will be ignored until the recipient of the guarantee fails. Those costs should be included in policy and planning processes before the insured event. Recognizing them in the budget as they are incurred is a prerequisite for doing so.

GSEs, Implied Guarantees, and Why Their Costs Rarely Appear in the Budget

GSEs are financial intermediaries, chartered by federal legislation and granted valuable privileges not usually afforded to for-profit enterprises (Stan-ton 2008). As privately owned corporations, GSEs are nonbudgetary, meaning that their transactions are not included in federal budget outlays, receipts, or the deficit (President's Commission on Budget Concepts 1967, 29–30). Rather, the president's budget has shown brief informational accounts for the enterprises. Those numbers have been published without review by staff in the federal government's Budget Appendix. Because of the inability of Fannie and Freddie to produce audited financial statements, those schedules are blank in the 2007–8 budget documents.

With the failure of Fannie Mae and Freddie Mac in September 2008, three government-sponsored enterprises remain: the Federal Home Loan Banks, the Farm Credit System, and Farmer Mac. Sallie Mae was a GSE but has been privatized.

Even though they are now federal agencies, Fannie Mae and Freddie Mac continue to operate two lines of business, investing in risky mortgages and guaranteeing mortgage-backed securities. The enterprises finance their mortgage holdings by selling their own securities in the capital markets. Earnings have been generated in the past by the excess of portfolio income over interest paid on debt securities and other operating expenses. Federal sponsorship significantly lowers their interest costs and increases their

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net earnings (or reduces losses) from their investment portfolio. Fannie and Freddie also guarantee privately issued mortgage-backed securities against credit risk. Their net income from that line is the excess of their guarantee fees over credit losses and other guarantee expenses. That difference is increased by the effect on the quality of the guarantee, which results from their links to the government and the implied guarantee.

The Implicit Guarantee

The most salient feature of GSE status is an implied federal guarantee of corporate obligations (Carnell

2001). That implication is the result of provisions in the charter acts that indicate to investors that the obligations of the enterprises are virtually free of credit (default) risk. The government sends that message through legislation: creating a line of credit at the U.S. Treasury for each GSE (capped at \$2.25 billion prior to the passage of the Housing and Economic Recovery Act of 2008, or HERA); declaring GSE debt securities equivalent to Treasury securities in eligibility for purchase by the Federal Reserve (which historically has held only very low-risk securities); accepting those securities as collateral for federal deposits; permitting unlimited investment by federally insured depositories; and classifying GSE securities as government securities for the purposes of the Securities Exchange Act of 1934 (Seiler et al. 1991). Those provisions in law trump the notice in their sales prospectuses that the offered securities are guaranteed only by the issuer and not by any other instrumentality of the federal government (U.S. Department of the Treasury 1996).

The implied guarantee conveys a subsidy to Fannie and Freddie. The subsidy is the compensation that private investors would require to provide equivalent guarantees in light of the risks assumed by the GSEs and their ability to meet their obligations without drawing on the guarantee. Taxpayers pay for the subsidy by giving up that compensation (Lucas and Phaup 2007).

An important feature of the guarantee is that its value and cost increase with the credit risk of the GSE. For example, GSEs have been able to borrow at favorable rates, even after they have become insolvent. This feature can permit an enterprise to continue to avoid default without calling on the government for cash. This feature underlies the low frequency of cost recognition for implied guarantees in a budget that uses cash-basis accounting. This occurred in the early 1980s, when a rise in interest rates pushed Fannie Mae's short-term funding costs above the income from its investment portfolio of long-term fixed-rate mortgages (GAO 1985). During this period, the estimated market value of Fannie Mae's assets fell \$11 billion below the value of its liabilities (Kane and Foster 1986). Fannie Mae was insolvent. Nonetheless, the enterprise continued to issue debt securities on favorable terms (Seiler 2003). Investors were willing to purchase GSE debt securities without evidence of the GSE's ability to repay on its own because they regarded the effective issuer of the debt to be the U.S. Treasury. Thus, Fannie Mae was able to avoid default on its obligations without turning to the federal government for cash.

The absence of market effects from the Fannie and Freddie accounting scandals of 2003–6 and the associated inability of the enterprises to prepare audited financial statements also suggest minimal reliance of investors on the financial condition of the GSEs in evaluating the

credit risk of GSE debt. Further, in their March 2008 financial reports, Fannie and Freddie reported that credit losses had reduced their capital buffer to less than 1.5 percent of the \$800 billion or so of their riskiest mortgages. Yet neither enterprise experienced much difficulty in finding buyers for its debt securities.

The connection of the subsidy's value to the financial condition of the GSE gives management substantial control of the amount of the subsidy. Conditional on meeting regulatory capital requirements, which have been less than half of those for a comparison group of commercial banks (Holtz-Eakin 2003), management has had discretion to increase leverage of capital with debt and to increase the risk of its assets. They also have an incentive to do so, though not without limit, because they also have an interest in maintaining the long-term value of the guarantee. As a former president of the Federal Home Loan Bank of Chicago said, "It is the fiduciary responsibility of GSE management to maximize the value of the implied federal guarantee to shareholders" (Pollock 2007).

Fannie and Freddie enjoyed the benefits of the federal guarantee without paying fees to the government. Instead, they were charged with providing public benefits through such activities as delivering credit to "underserved" markets (GAO 1990). Attempts to assess the effects of those requirements have found that they produced only small public benefits (Canner and Passmore 1995; Jaffee and Quigley 2007). In addition, the prices and other terms of those services were left to the discretion of management.

The annual gross value to Fannie Mae and Freddie Mac from GSE status was estimated to be \$23 billion in 2003 (Lucas and Torregrosa 2004). Other estimates have been higher (Passmore 2005). For many years, Fannie and Freddie have reported higher net income than other comparable financial institutions (Holtz-Eakin 2005).¹

No Cash Outlay Means No Budget Cost

The federal budget uses cash-basis accounting for most activity. Inflows of resources are recognized when cash is received, and outflows of resources—expenses or costs—when the Treasury disburses cash. Federal subsidies to Fannie Mae and Freddie Mac, however, were provided through implied guarantees of their obligations rather than cash payments or explicit guarantees. Implied guarantees are recognized as having a cost only when the government makes a payment to honor its commitment—at which point the government is liquidating an existing obligation rather than incurring a new one. Yet prior to September 2008, senior management of the enterprises could assure Congress and the public, with literal correctness, that they "do not receive one cent from the taxpayer" (Zoellick 1996; see also Johnson 1996).

From the perspective of the government and its stakeholders, the use of implied guarantees disabled an effective mechanism for financial disclosure and cost management. At zero budget cost, the cost of federal support for Fannie and Freddie was neither recognized nor controlled (Surowiecki 2008).

The irony of the pretense that implicit guarantees do not impose risks on government is that the cost to the government of permitting a default by a GSE or other private entity with a federal credit seal of approval is prohibitively high. In the case of Fannie and Freddie, a default on their obligations would impose severe losses on federally insured depository institutions, which hold about \$1 trillion of Fannie and Freddie securities (FDIC 2004). GSE securities are also held in large quantities by foreign investors, including central banks, whose continued willingness to invest in government and federally related agency securities is vital to financing the current U.S. budget and trade deficits (Wallison 2001, 2008).

Yet as the extent of losses from the decline in housing prices has become more apparent, the implicit guarantee has become too weak for some investors, who have begun to shy away from Fannie and Freddie's securities. Yields on GSE debt rose compared with those on Treasury debt. To squelch the perception that the current crisis could force a default on GSE securities, Congress adopted and the president signed the Housing and Economic Recovery Act of 2008 in July. HERA authorized the secretary of the treasury to purchase securities issued by the housing GSEs without limit in order to prevent a default on GSE obligations. The legislation was close to a "full faith and credit" federal guarantee.

Initial Cost Estimate for the Housing and Economic Recovery Act

The Congressional Budget Office (CBO) put the cost of avoiding a default on GSE debt at \$25 billion. A positive cost estimate for HERA was a bit of a surprise to some analysts, in light of the demonstrated ability of a federal guarantee to keep GSEs operating while insolvent without a cash payment from the government. Three factors, in addition to the effects of falling housing prices on credit losses at Fannie and Freddie, appear to have led the CBO to assign a cost to HERA. Those were the accounting rules specified in the Federal Credit Reform Act; the CBO's probabilistic scoring; and the expiration of the secretary's authority to purchase securities at year-end 2009 (CBO 2008c, 2008d).

Consistent with the Federal Credit Reform Act, the CBO estimate treated the Treasury's projected

purchases of GSE debt securities as direct loans. The budget cost of those loans is the present value of expected losses on the transactions and is recognized in outlays when the loan is disbursed. Equity purchases are not covered by Federal Credit Reform Act accounting. Prevailing practice has been to record such purchases as outlays for the full purchase price (Hamilton, Lucas, and Phaup 2003). The CBO anticipated credit losses on loans and outlays for equity purchases of \$20 billion in fiscal year 2009 and \$5 billion in 2010.

The cost estimate also used "probabilistic" or expected-value estimates, which record budget outlays as the weighted average of expected outlays, where the weights are the probability of each alternative outcome (Beider 1999). Specifically, the estimate adopted a probability of "better than 50 percent" that the housing GSE would *not* require cash from the U.S. Treasury before the authority sunsets in December 2009 and a 5 percent chance that more than \$100 billion would be required. The probability-weighted expected cost was \$25 billion.

The legislated expiration date of HERA and the termination of authorized support for GSE obligations

also may have convinced the CBO that the secretary would provide the GSEs with sufficient financial resources, if necessary, to enable them to borrow from investors in 2010 and beyond based on their own financial condition, without the Treasury backup.

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Conservatorship and the Treasury's Use of HERA Authority: Budgetary Implications

Despite HERA's stronger guarantee, the large interest rate spreads on securities issued by Fannie and Freddie over Treasury rates persisted through August. During the weekend of September 6–7, 2008, the regulator of the GSEs and the secretary of the treasury determined that the continued operation of the Fannie and Freddie with existing management and capitalization was inconsistent with the stability of the financial markets and the protection of conservatorship, replaced senior management, and took control of the enterprises.

The decision appears to have been triggered by a combination of factors, including the following:

- Evidence that the enterprises were deeply insolvent
- Concern that foreign investors were about to run from GSE securities
- An unwillingness on the administration's part to permit the GSEs to gamble for solvency with taxpayer backing

Even though the enterprises were effectively federal agencies after September 7, the Treasury's support of Fannie and Freddie continued to be governed by the authorities provided in HERA. Accordingly, the Treasury reached agreement with the enterprises to purchase preferred (senior) stock, established a facility for lending to them, and planned to purchase GSE mortgage-backed securities (U.S. Department of the Treasury 2008). The agreement to make future purchases of equity gave the government an immediate \$1 billion claim on the assets of both enterprises that is senior to all other stock, pays at least 10 percent return per year, requires the GSEs to pay fees to the Treasury beginning in 2010, and awards the government warrants to purchase nearly 80 percent of the common stock at favorable prices. The secured lending facility gives the government the option to lend directly to the GSEs.

The purchase of preferred stock in the enterprises by the Treasury threatens the off-budget status of Fannie and Freddie. Current budget concepts, including the principle that the budget should be comprehensive of all federal activity, strongly imply that these entities should be on budget (President's Commission on Budget Concepts 1967, 29). Accordingly, the CBO reclassified Fannie and Freddie as on-budget federal agencies. Ideally, though, the enterprises should be brought on budget in a manner that enhances transparency and does not add a large volume of incidental, offsetting, and costless cash flows to the budget totals. One way to do that is to account for Fannie and Freddie operations in below-the-line financing accounts. That treatment is consistent with credit reform that accounts for mortgages and guarantees of mortgage-backed securities in that way. With that treatment, only the net cost to the government of Fannie and Freddie would appear in budget outlays and the deficit.

In light of new information about the financial condition of Fannie Mae and Freddie Mac and the continued decline of housing prices, in January 2009, the CBO raised its estimate of the cost of Fannie Mac and Freddie Mac for the current fiscal year to \$200 billion. About \$40 billion of that is for the estimated cost of new credit extended by the enterprises. The remainder recognized the losses that the enterprises already had on their books at the time of their takeover (CBO 2009). Those costs were estimated using market values of the assets held by the enterprises and recognized using the credit reform account structure (Elmendorf 2009).

Alternative Budgeting for GSEs

Under current concepts, the budget should recognize the cost of implied guarantees as close to the point of obligation as possible. For failed GSEs, for which no budget cost has been booked previously, that is likely

at insolvency and failure. For operating GSEs, costs could be recognized as the implied guarantee transfers resources from taxpayers to the enterprises.

Budgeting for Failed, Government-Owned GSEs

When a GSE incurs losses that wipe out shareholders' equity, putting the entity into conservatorship under federal control can prevent management from increasing the government's risk exposure. Taking over a failed but operating GSE, however, also requires the government to accept two costs. The first is the accumulated loss incurred by the enterprises on business that pre-dates the federal takeover and that exceeds the ability of the companies to pay with current resources. The second is the loss on new, post-takeover business activity. As noted, the CBO has already recognized both losses for Fannie and Freddie in fiscal year 2009.

The George W. Bush administration disagreed with the CBO on the timing of the recognition of both costs. Bush Treasury officials argued that under agreements made following HERA, all federal costs for Fannie and Freddie would be paid through purchases of preferred stock (equity) by the Treasury as needed to maintain balance between the book value of assets and liabilities. The Office of Management and Budget (OMB), in its Circular A-11, directs that equity purchases are to be treated on a cash basis. Hence, the Bush administration recognized this cost as paid. In its Budget Blueprint released February 26, the Barack Obama administration continued the Bush policy and recognized no cost for Fannie and Freddie beyond the \$13 billion paid in November to Freddie Mac. However, the Blueprint did include an estimate of \$173 billion as the amount that the government would need to provide to the enterprises through 2011 under its current policy. Further, the new OMB Director, Peter Orszag, has indicated that the administration will revisit the issue of the budgetary treatment of Fannie and Freddie as soon as there is time to consider all the implications of doing so.

In an important sense, the budgetary treatment of failed GSEs by both the CBO and the administration is second best. Both recognize a cost of government sponsorship only after government takeover and long after the opportunity to control a large share of costs has past. That is, neither recognizes a cost for the subsidy conveyed by the implied guarantee to GSEs that continue to operate outside of government. From a budgetary and policy management perspective, it would provide more useful and timely information to recognize the cost of the implied guarantee as fiscal resources are delivered to operating GSEs. Doing so would signal the magnitude of the transfer and could motivate policy makers and budget framers to adopt measures to control those costs.

Budgeting for Privately Owned, Operating GSEs

Recognizing the cost of the implied guarantee as it provides free benefits to the GSEs would require the government to estimate those costs as incurred and adopt appropriate budgetary accounting procedures. Neither would be administratively onerous.

Several alternative but consistent approaches to estimating the cost of guarantees are now available to budget technicians. Those methods make use of market prices of comparable securities, interest rate spreads on securities of comparable risks, costs of insurance purchased through derivative securities, and options pricing models (Kiska, Lucas, and Phaup 2005; Lehnert, Passmore, and Sherlund 2008; Lucas and McDonald 2007; Lucas and Phaup 2008; Lucas, Phaup, and Prasad 2004; Moore 2008; Passmore 2005; Veronesi and Zingales 2008).² To be sure, estimating the periodic cost of federal guarantees requires specialized technical skills. This need might best be met by assigning primary responsibility for estimates to the central budget agencies or to the GSE regulator.

The estimated ongoing cost of sponsorship of the enterprises for the budget period could be recognized in outlays and the deficit through a periodic payment from an on-budget account to a means of financing (MOF) GSE reserve account. Budget outlays and the deficit would include the estimated subsidy while its receipt by the MOF account would reduce federal borrowing required to finance the deficit (Lucas and Phaup 2008).

With ex ante budgetary accounting for the cost of implied guarantees, legislation that authorizes action to liquidate costs, such as HERA, would not be scored with a cost. Rather, existing commitments would be financed with balances in the GSE reserve accounts accumulated from outlays scored when the cost of the guarantee was recognized. Additional cost would be included in outlays—in the form of a revised estimate—only if the balance in the reserve account were insufficient to discharge the obligation.

The revenue side of the budget would also be affected by those accounting changes. A portion of the cost of guarantees estimated using market values, rather than the synthetic measures specified in the Federal Credit Reform Act, corresponds to the compensation for risk bearing by taxpayers (Lucas and Phaup 2008). This cost is paid by taxpayers, who forgo that compensation, each budget year. As this compensation is forgone, it would be recognized on the revenue side of the budget as noncash budget

receipts.³ Although the recognition of this revenue might seem to be a leap from traditional budgetary accounting, the barrier to the recognition of non-cash outlays and revenues has already been broken. Recently, for example, a proposed free distribution of emission permits was scored as both outlays and revenues (CBO 2008b).

The increase in the complexity of the budget numbers and budget accounts is a disadvantage of the proposal to budget for the cost of implied guarantees as incurred. Even though those complexities merely mirror the complexities of enacted policies, adopting those proposals would sacrifice some budget simplicity. Some users of the budget might conclude that the numbers are unfathomable and therefore suspect. Late-night television comedians might not resist ridiculing such “creative” government accounting. However, the laugh test should not be dispositive in this case, especially if the alternative is to ignore much of the cost of implicit guarantees while they are affecting economic decisions and imposing costs on government stakeholders. When the government adopts complex policies, public administrators have to accept the responsibility of explaining those policies, their costs, and their consequences to the public.

Disclosure is a simpler alternative to the recognition of cost in the budget. That approach was taken in the Congressional Budget Act of 1974 for tax benefits. Thus, instead of recognizing the cost of tax expenditures in the budget, the *Analytical Perspectives* volume of the president’s proposed budget displays estimates of costs. However, as is also the case with proprietary financial accounting (Coronado et al. 2008), disclosures have substantially weaker effects on decisions than information that is included in the calculation of bottom line measures of financial results.

The current financial crisis and the related failure of Fannie and Freddie are an appropriate occasion to

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reconsider the budgetary treatment of implied guarantees. Such an effort could pay off in improved budget deliberations and policy decisions. As a cautionary note, however, experience with budget reform suggests that a change in budget rules and information is likely to have only a modest salutary effect (Joyce 2008; Meyers 2009). Better cost information is a necessary condition for better decisions; it is not sufficient.

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Notes

1. For 1987–2003, Fannie Mae's annual return on book equity ranged from 21 percent to 34 percent, except for two years in which the enterprise earned 40 percent (2001) and 50 percent (2003). In the same period, Freddie Mac's return on book equity range was 21 percent to 34 percent, except for 47 percent in 2002 and 17 percent in 2003. The average return on equity for a comparison group of private financial institutions was about 14 percent over this period. More detailed historical data are available from the Office of Federal Housing Enterprise Oversight's annual reports to Congress at <http://www.ofheo.gov>; see also Holtz-Eakin (2003).
2. A significant difference between the direct loans and loan guarantees accounted for under the Federal Credit Reform Act and the GSE subsidies is that loans have well-defined expected maturities (after accounting for the effect of prepayments and defaults). By contrast, the federal guarantee of the obligations of a GSE is for the life of the enterprise, which is indefinite (Cooperstein, Pennacchi, and Redburn 1995; Lucas and McDonald 2007; Redburn 1993). The open-ended cost of GSE guarantees may be bounded by restricting the estimated cost to new obligations (all of which have estimable maturities) issued in the budget period. The maturity of those obligations and their costs can be estimated much like those of federal loans and guarantees (Lucas and Phaup 2001). "Counterestimates" and critical reviews of those estimates of subsidies to Fannie and Freddie are available (see, e.g., Pearce and Miller 2001; Toevs 2000).
3. Taxpayers take on market risk when the government issues a guarantee; that is the cost recognized annually in outlays. Taxpayers finance the cost of risk component of the subsidy by forgoing the receipt of a risk premium. That source of financing is recognized as revenue when taxpayers forgo those returns. One way to put these numbers in the budget is to (1) use risk adjusted discount rates in calculating the cost of the guarantee that is paid to the financing account, and (2) transfer the risk premium as earned by taxpayers from the financing account to the general fund of the Treasury as revenues.

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