A

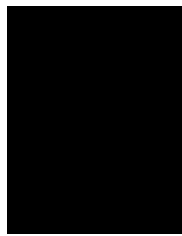
CBO

REPORT

The Troubled Asset Relief Program: Report on Transactions Through December 31, 2008

January 2009

CONGRESSIONAL BUDGET OFFICE
SECOND AND D STREETS, S.W.
WASHINGTON, D.C. 20515



Contents

Transactions of the TARP 2

Capital Purchases 2

Loans to Automobile Companies 3

Other Actions 3

Comparison of CBO's and OMB's Estimates of the Costs of the TARP's Transactions 4

How CBO Calculated the Costs of the TARP's Transactions 5

Tables

1. The Treasury's Activities Under the Troubled Asset Relief Program as of December 31, 2008 2

2. Assessments of the Costs of the Troubled Asset Relief Program Through November 6, 2008 4

The Troubled Asset Relief Program: Report on Transactions Through December 31, 2008

In October 2008, the President signed into law the Emergency Economic Stabilization Act of 2008 (EESA, Division A of Public Law 110-343). That legislation created the Troubled Asset Relief Program (TARP), which authorizes the Department of the Treasury to purchase or insure up to $700 billion of troubled assets. The term "troubled asset" is defined as:

> (A) residential or commercial mortgages and any securities, obligations, or other instruments that are based on or related to such mortgages, that in each case was originated or issued on or before March 14, 2008, the purchase of which the Secretary determines promotes financial market stability; and
>
> (B) any other financial instrument that the Secretary, after consultation with the Chairman of the Board of Governors of the Federal Reserve System, determines the purchase of which is necessary to promote financial market stability, but only upon transmittal of such determination, in writing, to the appropriate committees of Congress.

Section 202 of that law requires the Office of Management and Budget (OMB) to submit semiannual reports on the costs of the Treasury's purchases and guarantees of troubled assets.[1] The legislation also requires the Congressional Budget Office (CBO) to prepare an assessment of each of those reports within 45 days of its issuance. That assessment needs to include a discussion of:

- The costs of purchases and guarantees of troubled assets,
- The information and valuation methods used to calculate those costs, and
- The impact on the federal budget deficit and debt.

This is the first of CBO's statutory reports on the TARP's transactions. Through December 31, 2008, those transactions totaled $247 billion.[2] Valuing those assets using procedures similar to those specified in the Federal Credit Reform Act (FCRA), but adjusting for market risk as specified in the EESA, CBO estimates that the subsidy cost of those transactions (broadly speaking, the difference between what the Treasury paid for the investments or lent to the firms and the market value of those transactions) amounts to $64 billion.[3]

OMB's report on the TARP, issued in early December, evaluated only the first $115 billion distributed under the program. CBO and OMB do not differ significantly in their assessments of the subsidy cost of those transactions, but they vary in their judgments as to how the transactions should be reported in the federal budget.

1. OMB submitted its first TARP report to the Congress on December 5, 2008; see Office of Management and Budget, "OMB Report Under the Emergency Economic Stabilization Act, Section 202," letter to the Honorable Nancy Pelosi (December 5, 2008), www.whitehouse.gov/omb/legislative/eesa_120508.pdf.

2. The Treasury has reported to the Congress plans for another $20 billion of transactions, bringing its total announced commitments as of December 31 to $267 billion. See Department of the Treasury, *Fourth Tranche Report to Congress* (January 7, 2009), www.treasury.gov/initiatives/eesa/tranche-reports.shtml.

3. Thus far, the Administration is accounting for capital purchases made under the TARP on a cash basis rather than on such a present-value basis. That treatment will show more outlays for the TARP this year and then show receipts in future years.

Table 1.

The Treasury's Activities Under the Troubled Asset Relief Program as of December 31, 2008

	Number of Institutions	Amount (Billions of dollars)	Estimated Subsidy (Billions of dollars)	Subsidy Rate (Percent)
Capital Purchases				
Capital Purchase Program	214	178	32	18
American International Group	1	40	21	53
Citigroup	1	20	5	26
GMAC	1	5	3	63
Total Capital Purchases	217	243	61	25
Loans to Automobile Companies	1	4	3	63
Total	**218**	**247**	**64**	**26**
Memorandum:				
Purchases Through November 6, 2008:				
Capital Purchase Program[a]	8	115	21	18

Source: Congressional Budget Office.

a. The Office of Management and Budget's report on the TARP evaluated transactions through that date.

Transactions of the TARP

Currently, the Secretary of the Treasury has the authority to purchase $350 billion in assets. The Administration has submitted a plan indicating its intent to use the remaining $350 billion; that funding will become available unless a joint resolution disapproving it is enacted.[4] As of the end of December, the Treasury had spent $247 billion of the first $350 billion (see Table 1) and had plans in place for most of the rest of that half of the funds. Although CBO believes that the budget should record only the subsidy cost of those purchases (an estimated $64 billion through December 31), the Treasury has had to borrow the full amount disbursed, thereby increasing debt held by the public by $247 billion. Disbursements and commitments so far fall into three categories: capital purchases, loans, and other actions.

Capital Purchases

Through December 31, the Treasury had purchased $178 billion in shares of preferred stock and warrants from 214 U.S. financial institutions through its Capital Purchase Program (CPP).[5] The largest such transactions involve Citigroup, JP Morgan Chase, and Wells Fargo, at $25 billion each; Bank of America, at $15 billion; and Morgan Stanley and Goldman Sachs, at $10 billion each.

Each financial institution that received such funds is required to pay a dividend equal to 5 percent of the government's investment in that institution for the first five years, and 9 percent thereafter. Those shares never reach maturity (they are described as having "perpetual life") and are redeemable by the financial institution issuing them at any time after three years.[6] The shares of preferred stock are accompanied by warrants that allow the government to purchase common stock equal in cost to 15 percent of the amount invested in preferred stock. The government can purchase such stock at a price equal to the average price for the 20 trading days preceding the

4. The Administration submitted its plan on January 12, 2009.

5. Preferred stock refers to shares of equity that provide a specific dividend to be paid before any dividends are paid to those who hold common stock and that take precedence over common stock in the event of a liquidation; a warrant is a security that entitles the holder to buy stock of the company that issued it at a specified price.

6. The financial institution may redeem the shares before three years if it refinances the repayments through an equity offering.

date of the government's investment. In cases in which a financial institution does not have shares of publicly traded common stock, the warrants have been used to acquire additional shares of preferred stock. Finally, participating financial institutions must agree to restrictions on the amount of compensation they provide to their executives, the dividends they pay to their shareholders, and the amount of common stock they repurchase.

In addition, the Treasury has purchased $40 billion in preferred stock from the American International Group (AIG).[7] That company is required to pay a dividend of 10 percent a year; the shares are redeemable by the company but have no set maturity date. The government also received warrants to purchase shares of common stock for $2.50 each. The number of warrants (54 million) issued to the Treasury equals 2 percent of the issued and outstanding shares of AIG's common stock. Finally, AIG agreed to various restrictions on its activities—including limits on executive compensation, dividend payments, lobbying, and share repurchases.

The Treasury has made two other equity purchases—another $20 billion of preferred stock from Citigroup and $5 billion from GMAC (a financial services company). The terms of those purchases are similar to ones made under the CPP, except that those issues carry a dividend of 8 percent. Also, the government received warrants that allow it to purchase common stock equal in cost to 10 percent and 5 percent, respectively, of the amount invested by the government in Citigroup's and GMAC's preferred stock.

Loans to Automobile Companies

The Treasury has agreed to lend $18.4 billion to General Motors (GM) and Chrysler. The first loan disbursement of $4 billion was made to GM on December 31; another $4 billion was conveyed to Chrysler on January 2 (and thus is not included in Table 1). The Treasury has also committed to disburse another $5.4 billion to GM on January 16 and an additional $4 billion at a later date, contingent on the release of the second $350 billion of TARP funding. Finally, the Treasury is set to lend another $1 billion to GM to be used by the company to purchase equity in GMAC. The GM loans are accompanied by warrants, and the Chrysler loan is accompanied by an additional promissory note.[8]

7. AIG agreed to use the proceeds from the transaction to repay an existing loan it had with the Federal Reserve.

The loans to automobile companies have a term to maturity of three years, and the interest rate is keyed to the three-month Libor rate (the interest rate at which banks offer to lend money to one another), with a minimum rate of 5 percent.

As a condition of receiving the loans, the two automakers agreed to various provisions. The companies must negotiate a new labor agreement with their unions by February 17, 2009, and submit restructuring plans and periodic reports that detail their profitability, liquidity, and expense and benefit policies. In addition, the automakers agreed to restrict executive compensation, repurchases of shares, and dividend payments.

Other Actions

The Treasury, the Federal Reserve, and the Federal Deposit Insurance Corporation (FDIC) have, in combination, agreed to guarantee a $306 billion portfolio of assets owned by Citigroup. Through the TARP, the Treasury is responsible for up to $5 billion of potential losses on those securities.[9] Furthermore, the Treasury is responsible for $20 billion in credit protection (against debtors that do not pay because of insolvency or protracted default) for the Federal Reserve's Term Asset-Backed Securities Loan Facility (TALF), which has not yet begun operations.[10] The Treasury has not yet disbursed any funds for those transactions and, therefore, no costs have been recorded for them.

8. Because Chrysler is privately traded and cannot issue warrants to buy common stock, it agreed to give the Treasury an additional promissory note (with the same terms as the loan) equaling 6.67 percent of the Treasury's investment, thereby increasing the principal balance owed to the government by $267 million.

9. That guarantee is structured so that Citigroup absorbs the first $29 billion of losses from that portfolio and 10 percent of losses thereafter. Other than Citigroup's share of subsequent losses, the TARP and FDIC will be responsible for the next $5 billion and $10 billion of losses, respectively, and the Federal Reserve must cover the remaining losses in the portfolio (up to $234 billion).

10. The TALF is a credit facility of the Federal Reserve that will lend up to $200 billion to holders of certain AAA-rated asset-backed securities that support consumer lending such as credit cards, automobile loans, student loans, and small business loans. The TARP will provide $20 billion of funding to the TALF and the rest will be provided by the Federal Reserve. Repayments on the TARP's loan will begin only after the Federal Reserve's debt has been paid off.

Table 2.

Assessments of the Costs of the Troubled Asset Relief Program Through November 6, 2008

(Billions of dollars)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total, 2009–2018
						Cash Basis					
CBO	111	-4	-4	-4	-53	-2	-2	-2	-2	-25	14
OMB	111	-7	-7	-20	-19	-16	-10	-10	-8	-9	5
						Modified Credit Reform Basis					
CBO	21	0	0	0	0	0	0	0	0	0	21
OMB	26	0	0	0	0	0	0	0	0	0	26

Sources: Congressional Budget Office (CBO) and the Office of Management and Budget (OMB).

Notes: OMB's report was prepared on the basis of transactions through November 6, 2008. See Office of Management and Budget, "OMB Report Under the Emergency Economic Stabilization Act, Section 202," letter to the Honorable Nancy Pelosi (December 5, 2008).

The subsidy rates used for the modified credit reform estimates for the $115 billion in disbursements are 18 percent and 22 percent for CBO and OMB, respectively.

On December 31, 2008, the Treasury announced that it is exploring a program to guarantee certain securities held by financial institutions. In return for the TARP's insurance, the institutions would pay premiums to the Treasury to cover expected losses. Eligible assets could include mortgage- and asset-backed securities, individual mortgage loans, and municipal bonds.

Comparison of CBO's and OMB's Estimates of the Costs of the TARP's Transactions

Section 123 of EESA states that the federal budget should display the costs of purchasing or insuring troubled assets using procedures similar to those specified in the Federal Credit Reform Act but with an adjustment to account for market risk. Under that procedure, the federal budget would not record the gross cash disbursement for the purchase of a troubled asset (or cash receipt for its eventual sale) but instead would incorporate an estimate of the government's net cost (on a present-value basis) for the purchase.[11] Broadly speaking, the net cost is the purchase cost minus the estimated market value of the assets, which is the present value—calculated using an appropriate discount factor that reflects the riskiness of the underlying cash flows associated with the asset—of any estimated future earnings from holding the asset and the proceeds from its eventual sale.

Following that directive, CBO has estimated that the net costs of the TARP's activities through December 31, 2008 ($247 billion disbursed) total $64 billion. That calculation implies a subsidy rate of 26 percent—that is, the ultimate net costs (measured in 2008 dollars) amount to an estimated 26 percent of the government's initial expenditures.

OMB maintains that the Federal Credit Reform Act applies only to direct loans and loan guarantees and that the reference in EESA does not require the use of credit reform procedures for other types of transactions; therefore, it budgeted for those initial TARP disbursements on a cash basis rather than reporting the estimated subsidy cost (see Table 2). At the time that OMB's report was compiled (November 6, 2008), the TARP had disbursed $115 billion to eight large banks. CBO's and OMB's estimates on a cash basis both reflect net disbursements totaling $111 billion in 2009 ($115 billion in invest-

11. A present-value basis means that future cash flows are discounted back to the date of the investment, using an appropriate interest rate to reflect the risk and term to maturity of the underlying asset.

ments and $4 billion in dividends). OMB estimates about $9 billion less in net cash outlays over the 2009–2018 period than CBO projects. That difference partially reflects the agencies' differing expectations as to when redemptions will occur. OMB assumes that repayments will begin in 2010, whereas CBO anticipates that they will start in 2013.

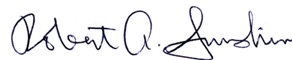
In its December report on the TARP, however, OMB also provided two alternative estimates of the subsidy cost of that first set of disbursements. One alternative estimate was valued using procedures similar to those specified in the FCRA (discounting future cash flows using a risk-free rate), and the other estimate was calculated using an approach similar to the way CBO treats the TARP: discounting future cash flows while adjusting for estimated market risk. OMB's second alternative calculation is comparable to CBO's assessment of the cost of the first $115 billion of transactions. Using a modified credit reform basis (that is, adjusting for risk), OMB estimated those costs to be $25.5 billion (a subsidy rate of 22 percent), and CBO arrived at a cost of $20.5 billion, or a subsidy rate of 18 percent. Most of that difference is probably explained by factors such as the discount rate used (which is affected by when the estimates were made) and the projected volatility of stock prices (which affects the potential value of the warrants).

How CBO Calculated the Costs of the TARP's Transactions

Under CBO's methodology, the present value of the preferred stock purchased by the Treasury was calculated using a discount rate equivalent to the yield on actively traded preferred stock for each company. If the institution does not have preferred stock, an average yield based on an industry index was used. CBO estimated dividend payments on the preferred stock under the assumption that it would be redeemed after either 5 years or 10 years. If the company's current yield on preferred stock is less than 9 percent, then the preferred stock investment was valued for 5 years; otherwise, the investment was valued for 10 years. The subsidy costs of the TARP loans were calculated using the same methodology applied to the purchase of preferred shares; that is, the projected cash flows resulting from the loans (including payments of interest and principal) were discounted using a market interest rate.

The value of warrants reduces the estimated net cost of capital purchases because, if the price of a company's common stock rises, warrants allow the government to purchase such stock at a lower price and sell it at the higher price. CBO valued such warrants using a modified Black-Scholes model, which is widely used to calculate the market value of options and other financial instruments. The inputs for the model include the risk-free rate of interest and certain characteristics of each institution's common stock—the current share price, its dividend yield, and its volatility (based on weekly returns for 10 years)—as well as the warrants' term to maturity and exercise price. The calculation assumes that the Treasury will hold the warrants until they reach their maturity date (in 10 years).

This report was prepared by Eric Schatten of the Congressional Budget Office's Budget Analysis Division under the supervision of Peter Fontaine, Theresa Gullo, and Jeffrey Holland. Kim Cawley, Chad Chirico, Robert Dennis, Mark Hadley, Wendy Kiska, Kim Kowalewski, Damien Moore, and Thomas Woodward contributed to the analysis.
This report and other publications are available at the agency's Web site (www.cbo.gov).



Robert A. Sunshine
Acting Director

January 16, 2009

CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE
WASHINGTON, DC 20515

INSIDE MAIL