20. BUDGETARY EFFECTS OF THE TROUBLED ASSET RELIEF PROGRAM

This chapter reports on the cost and budgetary effects of Treasury's Troubled Asset Relief Program (TARP), consistent with Sections 202 and 203 of the Emergency Economic Stabilization Act (EESA) of 2008 (P.L. 110–343), as amended. The cost estimates in this report reflect transactions as of September 30, 2016, and expected future transactions as reflected in the Budget and required under EESA. Where noted, a descriptive analysis of additional transactions that occurred after September 30, 2016, is provided. For information on subsequent TARP program developments, please consult the Treasury Department's TARP Monthly Reports to Congress. EESA authorized Treasury to purchase or guarantee troubled assets and other financial instruments to restore liquidity and stability to the financial system of the United States while protecting taxpayers. On October 3, 2010, Treasury's general authority to make new TARP commitments expired. Treasury continues to manage existing investments and is authorized to expend previously-committed TARP funds pursuant to obligations entered into prior to October 3, 2010. Subsequently, in December 2015, the Consolidated Appropriations Act, 2016 (P.L. 114-113) granted Treasury limited authority to make an additional $2.0 billion in commitments through the TARP Hardest Hit Fund (HHF).

Treasury's current estimate of TARP's lifetime deficit cost for its $454.5 billion in cumulative obligations is $32.4 billion (see Tables 20–1 and 20–6). Section 123 of EESA requires TARP costs to be estimated on a net present value basis, adjusted to reflect a premium for market risk. As investments are liquidated, their actual costs (including any market risk effects) become known and are reflected in reestimates. It is likely that the total cost of TARP to taxpayers will eventually be lower than current estimates as the forecast market risk premiums are replaced by actual costs, but the total cost will not be fully known until all TARP investments have been extinguished.

A description of the market impact of TARP programs, followed by a detailed analysis of the assets purchased through TARP, is provided at the end of this report.

Method for Estimating the Cost of TARP Transactions

Under EESA, Treasury has purchased different types of financial instruments with varying terms and conditions. The Budget reflects the costs of these instruments using the methodology as provided by Section 123 of EESA.

The estimated costs of each transaction reflect the underlying structure of the instrument. TARP financial instruments have included direct loans, structured loans, equity, loan guarantees, and direct incentive payments. The costs of equity purchases, loans, guarantees, and loss sharing are the net present value of cash flows to and from the Government over the life of the instrument, per the Federal Credit Reform Act (FCRA) of 1990; as amended (2 U.S.C. 661 et seq.), with an EESA-required adjustment to the discount rate for market risks. Costs for the incentive payments under TARP housing programs, other than loss sharing under the Federal Housing Administration (FHA) Refinance program, involve financial instruments

Table 20–1. CHANGE IN PROGRAMMATIC COSTS OF TROUBLED ASSET RELIEF PROGRAM
(In billions of dollars)

TARP Programs	2017 Budget		2018 Budget		Change from 2017 Budget to 2018 Budget	
	TARP Obligations [1]	Estimated Cost (+) / Savings (–)	TARP Obligations [1]	Estimated Cost (+) / Savings (–)	TARP Obligations [1]	Estimated Cost (+) / Savings (–)
Equity Programs	335.8	5.8	335.8	5.8	....	–*
Structured and Direct Loan Programs	76.2	16.7	76.2	16.7	....	*
Guarantee Programs [2]	5.0	–3.9	5.0	–3.9	....	....
TARP Housing Programs [3]	37.5	34.7	37.4	32.6	–0.1	–2.0
Total programmatic costs [4]	**454.6**	**53.2**	**454.5**	**51.2**	**–0.1**	**–2.1**
Memorandum:						
Deficit impact with interest on reestimates [5]		***34.5***		***32.4***		***–2.1***

*$50 million or less.
[1] TARP obligations are net of cancellations.
[2] The total assets supported by the Asset Guarantee Program were $301 billion.
[3] TARP obligations include FHA Refinance Letter of Credit first loss coverage of eligible FHA insured mortgages.
[4] Total programmatic costs of TARP exclude interest on reestimates.
[5] The total deficit impact of TARP as of November 30, 2016 includes $17.43 billion in subsidy cost for TARP investments in AIG. Additional proceeds of $17.55 billion resulting from Treasury holdings of non-TARP shares in AIG are not included.

Table 20–2. TROUBLED ASSET RELIEF PROGRAM CURRENT VALUE[1]
(In billions of dollars)

	Actual								Estimate										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Financing Account Balances:																			
Troubled Asset Relief Program Equity Purchase Financing Account	105.4	76.9	74.9	13.6	6.6	0.9	0.4	0.4	0.2	0.1	0.1	0.1	*	*	*	*	*	*	*
Troubled Asset Relief Program Direct Loan Financing Account	23.9	42.7	28.5	17.9	3.1	–0.2	–0.1	0.01	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*	–*
Troubled Assets Insurance Financing Fund Guaranteed Loan Financing Account	0.6	2.4	0.8	0.8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Troubled Assets Relief Program FHA Refinance Letter of Credit Financing Account	....	....	–*	–*	–*	–*	–*	–*	–*	–*	....	*	*	*	*	*	*	*	*
Total Financing Account Balances	**129.9**	**122.0**	**104.1**	**32.2**	**9.7**	**0.7**	**0.3**	**0.4**	**0.1**	**0.1**	**0.1**	**0.1**	*	*	*	*	*	*	*

* $50 million or less.

[1] Current value as reflected in the 2018 Budget. Amounts exclude housing activity under the Making Home Affordable program and the Hardest Hit Fund as these programs are reflected on a cash basis.

without any provision for future returns and are recorded on a cash basis.[1]

For each of these instruments, cash flow models[2] are used to estimate future cash flows to and from the Government over the life of a program or facility. Consistent with the requirement under FCRA to reflect the lifetime present value cost, subsidy cost estimates are reestimated every year an instrument is outstanding, with a final closing reestimate once an instrument is fully liquidated. Reestimates update the cost for actual transactions, and updated future expectations. When all investments in a given cohort are liquidated, their actual costs (including any market risk effects) become known and are reflected in final closing reestimates.

TARP Program Costs and Current Value of Assets

This section provides the special analysis required under Sections 202 and 203 of EESA, including estimates of the cost to taxpayers and the budgetary effects of TARP transactions as reflected in the Budget.[3] This section also explains the changes in TARP costs, and includes alternative estimates as prescribed under EESA. Additionally, this section includes a comparison of the current cost estimates with previous estimates provided by OMB and by the Congressional Budget Office (CBO).

Table 20–1, above, summarizes the cumulative and anticipated activity under TARP, and the estimated lifetime budgetary cost reflected in the Budget, compared to estimates from the 2017 Budget. The direct impact of TARP on the deficit is projected to be $32.4 billion, down $2.1 billion from the $34.5 billion estimate in the 2017 Budget. The total programmatic cost represents the lifetime net present value cost of TARP obligations from the date of disbursement, which is now estimated to be $51.2 billion, a figure that excludes interest on reestimates.[4] The final subsidy cost of TARP is likely to be lower than the current estimate because projected cash flows are discounted using a risk adjustment to the discount rate as required by EESA. This requirement adds a premium to current estimates of TARP costs on top of market and other risks already reflected in the estimated cash flows with the public. Over time, the added risk premium for uncertainty on future estimated TARP cash flows is returned to the General Fund through subsidy reestimates as actual cash flows become known. TARP's overall cost to taxpayers will not be fully known until all TARP investments are extinguished.

Current Value of Assets

The current value of future cash flows related to TARP transactions can also be measured by the balances in the program's non-budgetary credit financing accounts. Under the FCRA budgetary accounting structure, the net debt or cash balances in non-budgetary credit financing accounts at the end of each fiscal year reflect the present value of anticipated cash flows to and from the public.[5] Therefore, the net debt or cash balances reflect the expected present value of the asset

[1] Section 123 of EESA provides Treasury the authority to record TARP equity purchases pursuant to FCRA, with required adjustments to the discount rate for market risks. The HHF and Making Home Affordable (MHA) program involve the purchase of financial instruments that have no provision for repayment or other return on investment, and do not constitute direct loans or guarantees under FCRA. Therefore these purchases are recorded on a cash basis. Administrative expenses for TARP are recorded under the Office of Financial Stability and the Special Inspector General for TARP on a cash basis, consistent with other Federal administrative costs, but are recorded separately from TARP program costs.

[2] The basic methods for each of these models are outlined in chapter 21 of the Analytical Perspectives volume of the 2015 Budget, "Financial Stabilization Efforts and Their Budgetary Effects."

[3] The analysis does not assume the effects on net TARP costs of a recoupment proposal required by Section 134 of EESA.

[4] With the exception of MHA and HHF, all the other TARP investments are reflected on a present value basis pursuant to FCRA and EESA.

[5] For example, to finance a loan disbursement to a borrower, a direct loan financing account receives the subsidy cost from the program account, and borrows from the Treasury the difference between the face value of the loan and the subsidy cost. As loan and interest payments from the public are received, the value is realized and these amounts are used to repay the financing account's debt to Treasury.

or liability. Future collections from the public—such as proceeds from stock sales, or payments of principal and interest—are financial assets, just as future payments to the public are financial liabilities. The current year reestimates true-up assets and liabilities, setting the net debt or cash balance in the financing account equal to the present value of future cash flows.[6]

Table 20–2 shows the actual balances of TARP financing accounts as of the end of each fiscal year through 2016, and projected balances for each subsequent year through 2027.[7] Based on actual net balances in financing accounts at the end of 2009, the value of TARP assets totaled $129.9 billion. As of September 30, 2016, total TARP net asset value has decreased to $0.4 billion as repayments, repurchases, and other liquidations have reduced the inventory of TARP assets. Estimates in 2017 and beyond reflect estimated TARP net asset values over time, and future anticipated transactions. The overall balance of the financing accounts is estimated to continue falling over the next few years, as TARP investments continue to wind down.

The value of TARP equity purchases reached a high of $105.4 billion in 2009, and has since declined significantly with the wind down of American International Group (AIG) funding and repayments from large financial institutions. Remaining equity investments are concentrated in only two programs, the Capital Purchase Program (CPP) and the Community Development Capital Initiative (CDCI). The value of the TARP equity portfolio is anticipated to continue declining as participants repurchase stock and assets are sold. TARP direct loans were fully liquidated in January 2014. The FHA Refinance Letter of Credit financing account reflects net cash balances, showing the reserves set aside to cover TARP's share of default claims for FHA Refinance mortgages over the life of the letter of credit facility which expires in December 2022. These reserves are projected to fall as claims are paid and as TARP coverage expires.

Estimate of the Deficit, Debt Held by the Public, and Gross Federal Debt, Based on the EESA Methodology

The estimates of the deficit and debt in the Budget reflect the impact of TARP as estimated under FCRA and Section 123 of EESA. The deficit estimates include the budgetary costs for each program under TARP, administrative expenses, certain indirect interest effects of credit programs, and the debt service cost to finance the program. As shown in Table 20-3, direct activity under TARP is expected to increase the 2017 deficit by $4.3 billion. This reflects estimated TARP programmatic and administrative outlays of $4.1 billion, and reestimates on TARP investments, including interest on reestimates, and $0.2 billion in interest effects. The estimates of U.S. Treasury debt attributable to TARP include borrowing to finance both the deficit impacts of TARP activity and the cash flows to and from the Government reflected as a means of financing in the TARP financing accounts. Estimated debt due to TARP at the end of 2017 is $28.6 billion.

Debt held by the public net of financial assets reflects the cumulative amount of money the Government has borrowed from the public for the program and not repaid, minus the current value of financial assets acquired with the proceeds of this debt, such as loan assets, or equity held by the Government. While debt held by the public is one useful measure for examining the impact of TARP, it provides incomplete information on the program's effect on the Government's financial condition. Debt held by the public net of financial assets provides a more complete picture of the Government's financial position because it reflects the net change in the Government's balance sheet due to the program.

Debt net of financial assets due to TARP is estimated to be $28.5 billion as of the end of 2017. This is $1.7 billion lower than the projected debt held net of financial assets for 2017 that was reflected in the 2017 Budget. However, debt net of financial assets is anticipated to continue increasing annually, as debt is incurred to finance TARP housing program costs and debt service.

Under FCRA, the financing account earns and pays interest on its Treasury borrowings at the same interest rate used to discount cash flows for the credit subsidy cost. Section 123 of EESA requires an adjustment to the discount rate used to value TARP subsidy costs to account for market risks. However, actual cash flows as of September 30, 2016, already reflect the effect of any incurred market risks to that point, and therefore actual financing account interest transactions reflect the FCRA Treasury interest rates, with no additional risk adjustment.[8] Future cash flows reflect a risk adjusted discount rate and the corresponding financing account interest rate, consistent with the EESA requirement. For ongoing TARP credit programs, the risk adjusted discount rates on future cash flows result in subsidy costs that are higher than subsidy costs estimated under FCRA.

Estimates on a Cash Basis

The value to the Federal Government of the assets acquired through TARP is the same whether the costs of acquiring the assets are recorded in the Budget on a cash basis, or a credit basis. As noted above, the Budget records the cost of equity purchases, direct loans, and guarantees as the net present value cost to the Government, discounted at the rate required under FCRA and adjusted for market risks as required under Section 123 of EESA. Therefore, the net present value cost of the assets is reflected on-budget, and the gross value of these assets is

[6] For a full explanation of FCRA budgetary accounting, please see chapter 19, "Credit and Insurance," in this volume.

[7] Reestimates for TARP are calculated using actual data through September 30, 2016, and updated projections of future activity. Thus, the full impacts of TARP reestimates are reflected in the 2017 financing account balances.

[8] As TARP transactions wind down, the final lifetime cost estimates under the requirements of Section 123 of EESA will reflect no adjustment to the discount rate for market risks, as these risks have already been realized in the actual cash flows. Therefore, the final subsidy cost for TARP transactions will equal the cost per FCRA, where the net present value costs are estimated by discounting cash flows using Treasury rates.

Table 20–3. TROUBLED ASSET RELIEF PROGRAM EFFECTS ON THE DEFICIT AND DEBT[1]
(Dollars in billions)

	Actual								Estimate										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Deficit Effect:																			
Programmatic and administrative expenses	151.3	–109.6	–37.3	24.6	–8.5	–3.6	2.9	4.3	4.1	2.8	1.9	1.1	0.7	0.5	0.4	0.1	*	*	*
Interest effects[2, 3]	*	*	*	*	*	*	*	0.1	0.2	0.4	0.6	0.9	1.0	1.2	1.2	1.3	1.3	1.4	1.4
Total deficit impact	**151.3**	**–109.6**	**–37.3**	**24.7**	**–8.5**	**–3.6**	**2.9**	**4.3**	**4.3**	**3.2**	**2.5**	**2.0**	**1.7**	**1.7**	**1.6**	**1.4**	**1.4**	**1.5**	**1.5**
Debt held by the public:																			
Deficit impact	151.3	–109.6	–37.3	24.7	–8.5	–3.6	2.9	4.3	4.3	3.2	2.5	2.0	1.7	1.7	1.6	1.4	1.4	1.5	1.5
Net disbursements of credit financing accounts	129.9	–7.9	–17.8	–71.9	–22.5	–9.0	–0.4	0.1	–0.3	–*	–*	–*	–*	–*	–*	....	....	....	....
Total change in debt held by the public	281.2	–117.5	–55.1	–47.2	–31.0	–12.6	2.5	4.5	4.0	3.1	2.4	1.9	1.7	1.7	1.6	1.4	1.4	1.5	1.5
Debt held by the public	**281.2**	**163.6**	**108.5**	**61.3**	**30.3**	**17.6**	**20.2**	**24.6**	**28.6**	**31.8**	**34.2**	**36.2**	**37.8**	**39.5**	**41.1**	**42.5**	**43.8**	**45.3**	**46.8**
Debt held by the public net of financial assets:																			
Debt held by the public	281.2	163.6	108.5	61.3	30.3	17.6	20.2	24.6	28.6	31.8	34.2	36.2	37.8	39.5	41.1	42.5	43.8	45.3	46.8
Less financial assets net of liabilities	129.9	122.0	104.1	32.2	9.7	0.7	0.3	0.4	0.1	0.1	0.1	0.1	*	*	*	*	*	....	....
Debt held by the public net of financial assets	**151.3**	**41.6**	**4.4**	**29.0**	**20.5**	**17.0**	**19.9**	**24.2**	**28.5**	**31.7**	**34.1**	**36.1**	**37.8**	**39.5**	**41.0**	**42.4**	**43.8**	**45.3**	**46.8**

* $50 million or less.
[1] Table reflects the deficit effects of the TARP program, including administrative costs and interest effects.
[2] Projected Treasury interest transactions with credit financing accounts are based on the market-risk adjusted rates. Actual credit financing account interest transactions reflect the appropriate Treasury rates under the FCRA.
[3] Includes estimated debt service effects of all TARP transactions that affect borrowing from the public.

reflected in the financing accounts.[9] If these purchases were instead presented in the Budget on a cash basis, the Budget would reflect outlays for each disbursement (whether a purchase, a loan disbursement, or a default claim payment), and offsetting collections as cash is received from the public, with no obvious indication of whether the outflows and inflows leave the Government in a better or worse financial position, or what the net value of the transaction is.

Revised Estimate of the Deficit, Debt Held by the Public, and Gross Federal Debt Based on the Cash-basis Valuation

The estimated effects of TARP transactions on the deficit and debt, as calculated on a cash basis, are reflected in Table 20–4. For comparison, the estimates in Table 20–3 (above) reflect TARP transactions' effects as calculated consistent with FCRA and Section 123 of EESA.

If TARP transactions were reported on a cash basis, the annual budgetary effects would include the full amount of Government disbursements for activities such as equity purchases and direct loans, offset by cash inflows from dividend payments, redemptions, and loan repayments occurring in each year. For loan guarantees, the deficit would show fees, claim payouts, or other cash transactions associated with the guarantees as they occurred. Updates to estimates of future performance would affect the deficit in the year that they occur, and there would not be credit reestimates.

Under cash basis reporting, TARP would increase the deficit in 2017 by an estimated $4.0 billion, so if this basis was used the 2017 deficit would be $0.3 billion lower than the $4.3 billion estimate now reflected in the Budget. Under FCRA, the marginal change in the present value attributable to better-than-expected future inflows from the public would be recognized up front in a downward

[9] For MHA programs and HHF, Treasury's purchases of financial instruments do not result in the acquisition of assets with potential for future cash flows, and therefore are recorded on a cash basis.

Table 20–4. TROUBLED ASSET RELIEF PROGRAM EFFECTS ON THE DEFICIT AND DEBT CALCULATED ON A CASH BASIS[1]
(Dollars in billions)

	Actual								Estimate										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Deficit Effect:																			
Programmatic and administrative expenses	278.4	–122.3	–58.1	–48.9	–31.6	–12.8	2.5	4.4	3.8	2.7	1.8	1.0	0.6	0.5	0.3	*	–*	*	–0.1
Debt service[2]	2.8	4.7	3.0	1.7	0.6	0.2	*	0.1	0.2	0.4	0.7	0.9	1.1	1.2	1.3	1.3	1.4	1.4	1.5
Total deficit impact	**281.2**	**–117.5**	**–55.1**	**–47.2**	**–31.0**	**–12.6**	**2.5**	**4.5**	**4.0**	**3.1**	**2.4**	**1.9**	**1.7**	**1.7**	**1.6**	**1.4**	**1.4**	**1.5**	**1.4**

* $50 million or less.
[1] Table reflects deficit effect of budgetary costs, substituting estimates calculated on a cash basis for estimates calculated under FCRA and Sec. 123 of EESA.
[2] Includes estimated debt service effects of all TARP transactions affecting borrowing from the public.

Table 20–5. TROUBLED ASSET RELIEF PROGRAM REESTIMATES

(In billions of dollars)

TARP Program and Cohort Year	Original subsidy rate	Current reestimate rate	Current reestimate amount	Net lifetime reestimate amount, excluding interest	TARP disbursements as of 09/30/2016
Equity Programs:					
Automotive Industry Financing Program (AIFP) - Equity:					
2009	54.52%	2.39%	*	–6.5	12.5
2010	30.25%	–16.81%	....	–1.6	3.8
Capital Purchase Program (CPP):				....	
2009	26.99%	–6.83%	–*	–65.8	204.6
2010	5.77%	2.04%	*	–*	0.3
AIG Investment Program (AIG):				....	
2009	82.78%	21.88%	....	–38.5	67.8
Public-Private Investment Program (PPIP) - Equity:				....	
2009	34.62%	–20.41%	....	–0.3	0.7
2010	22.97%	–51.02%	....	–3.7	5.5
Targeted Investment Program (TIP):				....	
2009	48.85%	–8.47%	....	–23.2	40.0
Community Development Capital Initiative (CDCI):				....	
2010	48.06%	15.29%	–*	–0.2	0.6
Subtotal Equity Programs			**–0.1**	**–139.8**	**335.8**
Structured and Direct Loan Programs:					
Automotive Industry Financing Program (AIFP) - Debt:					
2009	58.75%	21.70%	....	–19.9	63.4
Public Private Investment Program (PPIP) - Debt:				....	
2009	–2.52%	–0.29%	....	*	1.4
2010	–10.85%	1.84%	....	1.3	11.0
Small Business 7(a) program (SBA 7(a)):				....	
2010	0.48%	–1.35%	....	–*	0.4
Term-Asset Backed Securities Loan Facility (TALF)[1]:				....	
2009	–104.23%	–605.59%	....	–0.4	0.1
Subtotal Structured and Direct Loan Programs			**........**	**–18.9**	**76.2**
Guarantee Programs[2]:					
Asset Guarantee Program (AGP)[3]:					
2009	–0.25%	–1.20%	....	–1.4	301.0
FHA Refinance Letter of Credit[4]:				....	
2011	1.26%	0.21%	–*	–*	0.1
2012	4.00%	0.96%	–*	–*	0.2
2013	2.48%	0.88%	–*	–*	0.2
2015	1.64%	0.89%	–*	–*	0.1
2017[5]	0.80%	....	....	....	0.2
Subtotal Guarantee Program			–*	–1.4	301.5
Total TARP			**–0.1**	**–160.1**	**713.6**

* $50 million or less.

[1] The Term-Asset Backed Securities Loan Facility original subsidy rate reflects the anticipated collections for Treasury's $20 billion commitment, as a percent of estimated lifetime disbursements of roughly $0.1 billion.

[2] Disbursement amounts for Guarantee Programs reflect the face value of the assets supported by the guarantees.

[3] The TARP obligation for this program was $5 billion, the maximum contingent liability while the guarantee was in force.

[4] The FHA Refinance Letter of Credit, which is considered a TARP Housing Program, is also a guarantee program subject to FCRA.

[5] The FHA Refinance Letter of Credit 2017 cohort was only open from September 30, 2016 to December 31, 2016, it guaranteed loans totalling $200,000,000, and there is no current reestimate.

reestimate, in contrast to a cash-based treatment that would show the annual marginal changes in cash flows. However, the impact of TARP on the Federal debt, and on debt held net of financial assets, is the same on a cash basis as under FCRA. Because debt held by the public, and debt net of financial assets are the same on a cash and present value basis, these data are not repeated in Table 20–4.

Portion of the Deficit Attributable to TARP, and the Extent to Which the Deficit Impact is Due to a Reestimate

Table 20–3 shows the portion of the deficit attributable to TARP transactions. The major components of TARP's $4.3 billion deficit effects in 2017 are as follows:

- TARP reestimates and interest on reestimates will decrease the deficit by $0.1 billion in 2017.
- Outlays for TARP housing programs are estimated at $3.7 billion in 2017, which includes outlays under MHA and HHF. Outlays for TARP housing programs are estimated to decline gradually through 2024.
- Administrative expense outlays for TARP are estimated at $162 million in 2017, and are expected to decrease annually thereafter as TARP winds down. Outlays for the Special Inspector General for TARP are estimated at $45 million in 2017.
- Interest transactions with credit financing accounts include interest paid to Treasury on borrowing by the financing accounts, offset by interest paid by Treasury on the financing accounts' uninvested balances. Although the financing accounts are non-budgetary, Treasury payments to these accounts and receipt of interest from them are budgetary transactions and therefore affect net outlays and the deficit. For TARP financing accounts, projected interest transactions are based on the market risk adjusted rates used to discount the cash flows. The projected net financing account interest paid to Treasury at market risk adjusted rates is $27 million in 2017 and declines over time as the financing accounts repay borrowing from Treasury through investment sale proceeds and repayments on TARP equity purchases and direct loans.

The full impact of TARP on the deficit includes the estimated cost of Treasury borrowing from the public—debt service—for the outlays listed above. Debt service is

Table 20–6. DETAILED TARP PROGRAM LEVELS AND COSTS

(In billions of dollars)

Program	2017 Budget		2018 Budget	
	TARP Obligations	Subsidy Costs	TARP Obligations	Subsidy Costs
Equity Purchases:				
Capital Purchase Program (CPP)	204.9	–8.4	204.9	–8.4
AIG Investment Program (AIG)	67.8	17.4	67.8	17.4
Targeted Investment Program (TIP)	40.0	–3.6	40.0	–3.6
Automotive Industry Financing Program (AIFP) - Equity	16.3	2.8	16.3	2.8
Public-Private Investment Program (PPIP) - Equity	6.2	–2.5	6.2	–2.5
Community Development Capital Initiative (CDCI).	0.6	0.1	0.6	0.1
Subtotal equity purchases	335.8	5.8	335.8	5.8
Structured and Direct Loan Programs:				
Automotive Industry Financing Program (AIFP) - Debt	63.4	17.1	63.4	17.1
Term Asset-Backed Securities Loan Facility (TALF)	0.1	–0.6	0.1	–0.6
Public-Private Investment Program (PPIP) - Debt	12.4	0.1	12.4	0.1
Small Business 7(a) Program (SBA 7(a))	0.4	*	0.4	*
Subtotal direct loan programs	76.2	16.7	76.2	16.7
Guarantee Programs:				
Asset Guarantee Program (AGP)1	5.0	–3.9	5.0	–3.9
Subtotal asset guarantees	5.0	–3.9	5.0	–3.9
TARP Housing Programs:				
Making Home Affordable (MHA) Programs	27.8	25.1	27.8	23.0
Hardest Hit Fund (HHF)	9.6	9.6	9.6	9.6
Subtotal non-credit programs	37.4	34.7	37.4	32.6
FHA Refinance Letter of Credit	0.1	*	*	*
Subtotal TARP housing programs	37.5	34.7	37.4	32.6
Totals	**454.6**	**53.2**	**454.5**	**51.2**
Memorandum:				
Interest on reestimates		–18.7		–18.8
Deficit impact with interest on reestimates[2]		***34.5***		***32.4***

* $50 million or less.

[1] The total assets supported by the Asset Guarantee Program were $301 billion.

[2] Total programmatic costs of TARP exclude interest on reestimates of $18.7 billion in the 2017 Budget and $18.8 billion in the 2018 Budget. Interest on reestimates is an adjustment that accounts for the time between the original subsidy costs and current estimates; such adjustments impact the deficit but are not direct programmatic costs.

Table 20–7. COMPARISON OF CBO AND OMB TARP COSTS
(In billions of dollars)

Program	Estimates of Deficit Impact [1]	
	CBO Cost Estimate [2]	OMB Cost Estimate
Capital Purchase Program		
Targeted Investment Program & Asset Guarantee Program	–8	–8
AIG assistance	15	15
Automotive Industry Financing Program	12	12
Term Asset-Backed Securities Loan Facility	–1	–1
Public-Private Investment Programs [3].	–3	–3
Other programs [4]	*	0
TARP housing programs	30	33
Total	**30**	**32**

* Amounts round to less than $1 billion.
[1] Totals include interest on reestimates.
[2] CBO estimates from March 2016, available at www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51378-TARP.pdf
[3] Includes both debt and equity purchases.
[4] "Other programs" reflects an aggregate cost for CDCI and small business programs.

estimated at $197 million for 2017 and then expected to increase to $1.5 billion by 2027, largely due to outlays for TARP housing programs. Total debt service will continue over time after TARP winds down, due to the financing of past TARP costs.

Analysis of TARP Reestimates

The costs of outstanding TARP assistance are re-estimated annually by updating cash flows for actual experience and new assumptions, and adjusting for any changes by either recording additional subsidy costs (an upward technical and economic reestimate) or by reducing subsidy costs (a downward reestimate). The re-estimated dollar amounts to be recorded in 2017 reflect TARP disbursements through September 30, 2016, while reestimated subsidy rates reflect the full lifetime costs, including anticipated future disbursements. Detailed information on upward and downward reestimates to program costs is reflected in Table 20–5.

The current reestimate of -$0.1 billion reflects a decrease in estimated TARP costs from the 2017 Budget. This decrease was due in large part to improved market conditions and continued progress winding down TARP investments over the past year.

Differences Between Current and Previous OMB Estimates

As shown in Table 20–6, the 2018 Budget reflects a total TARP deficit impact of $32.4 billion. This is a decrease of $2.1 billion from the 2017 Budget projection of $34.5 billion. This decrease is predominantly due to reduced estimated outlays within TARP housing programs.

The estimated 2018 TARP deficit impact reflected in Table 20–6 differs from the programmatic cost of $51.2 billion in the Budget because the deficit impact includes $18.8 billion in cumulative downward adjustments for interest on subsidy reestimates. See footnote 2 in Table 20–6.

Differences Between OMB and CBO Estimates

Table 20–7 compares the OMB estimate for TARP's deficit impact to the deficit impact estimated by CBO in its "Report on the Troubled Asset Relief Program—March 2016."[10]

CBO estimates the total cost of TARP at $30 billion, based on estimated lifetime TARP disbursements of $442 billion. The Budget reflects the total deficit cost at $32 billion, based on current estimates of $455 billion in program obligations. The main difference between OMB and CBO cost estimates is the difference in the estimated cost of TARP housing programs, which stems from divergent demand and participation rate assumptions. CBO projects $30 billion in total TARP housing expenditures, while the Budget reflects a $32.6 billion estimate. Other differences between CBO and OMB cost estimates for TARP have diminished over time as TARP equity programs have wound down and differences in assumptions for the future performance of equity investments in the program have been eliminated.

TARP Market Impact

TARP provided support to the financial sector through the Capital Purchase Program, Targeted Investment Program, Asset Guarantee Program, and the Community Development Capital Initiative which strengthened the financial position of the Nation's financial institutions. TARP's intervention in the auto industry through the Automotive Industry Financing Program was effectively wound down as of December 2014, however, Treasury retains the right to receive proceeds from Chrysler and General Motors (GM) liquidation trusts. TARP housing programs provided assistance to millions of homeowners including more than 1.7 million borrowers who received permanent mortgage modifications through the Home Affordable Modification Program (HAMP) as of March 31, 2017.

[10] Available at: *www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/51378-TARP.pdf*

Description of Assets Purchased Through TARP, by Program

Capital Purchase Program (CPP): Pursuant to EESA, Treasury created the CPP in October 2008 to restore confidence throughout the financial system by ensuring that the Nation's financial institutions had a sufficient capital cushion against potential future losses and to support lending to creditworthy borrowers. All eligible CPP recipients completed funding applications by December 31, 2009, and Treasury purchased $204.9 billion in preferred stock in 707 financial institutions under CPP. As of March 31, 2017, Treasury had received approximately $199.6 billion in principal repayments and $27.1 billion in revenues from dividends, interest, warrants, gains/other interest and fees. CPP cash proceeds of $226.7 billion now exceed Treasury's initial investment by $21.8 billion. As of March 31, 2017, $0.2 billion remained outstanding under the program among 10 remaining CPP institutions.

Community Development Capital Initiative (CDCI): The CDCI program provided lower-cost capital to Community Development Financial Institutions (CDFIs), which operate in markets underserved by traditional financial institutions. In February 2010, Treasury released program terms for the CDCI program, under which participating institutions received capital investments of up to 5 percent of risk-weighted assets and pay dividends to Treasury of as low as 2 percent per annum. The dividend rate increases to 9 percent after eight years. CDFI credit unions were able to apply to TARP for subordinated debt at rates equivalent to those offered to CDFI banks and thrifts. TARP capital of $570 million has been committed to this program. In August 2016, Treasury offered participating CDCI institutions the opportunity to repurchase their outstanding securities at fair value. As of March 31, 2017 and with the early repurchase window now closed, 27 full and partial repurchases at fair value had been completed. As of March 31, 2017, Treasury has received $508 million in cash back on its CDCI investments and $98 million remains outstanding.

Capital Assistance Program (CAP): In 2009, Treasury worked with Federal banking regulators to develop a comprehensive "stress test" known as the Supervisory Capital Assessment Program (SCAP) to assess the health of the nation's 19 largest bank holding companies. In conjunction with SCAP, Treasury also announced it would provide capital under TARP through the Capital Assistance Program (CAP) to institutions that participated in the stress tests as well as others. Only one TARP institution (Ally Financial) required additional funds under the stress tests, but it received them through AIFP, not CAP. CAP closed on November 9, 2009, without making any investments and did not incur any losses to taxpayers. Following the release of the stress test results, banks were able to raise hundreds of billions of dollars in private capital.

American International Group (AIG) Investments: During the financial crisis, the Federal Reserve Bank of New York (FRBNY) and Treasury provided financial support to AIG in order to mitigate broader systemic risks that would have resulted from the disorderly failure of the company. In September 2008, prior to the enactment of TARP, the FRBNY provided an $85 billion line of credit to AIG and received preferred shares that entitled it to 79.8 percent of the voting rights of AIG's common stock. After TARP was enacted, FRBNY and Treasury continued to work to facilitate AIG's execution of its plan to sell certain of its businesses in an orderly manner, promote market stability, and protect the interests of the U.S. Government and taxpayers. As of December 31, 2008, when purchases ended, Treasury had purchased $40 billion in preferred shares from AIG through TARP and later extended a $29.8 billion line of credit, of which AIG drew down $27.8 billion, in exchange for additional preferred stock. The remaining $2 billion obligation was canceled.

AIG executed a recapitalization plan with FRBNY, Treasury, and the AIG Credit Facility Trust in January 2011 that allowed for the acceleration of the Government's exit from its 92 percent ownership stake in AIG.[11] Following the restructuring, Treasury executed a multi-year process of liquidating its position, and as of March 2013, has fully exited its investment in AIG.[12] In total, TARP's AIG commitments totaled $67.8 billion and, with the program closed, yielded $55.3 billion in total cash back. Treasury collected net proceeds of $17.6 billion for its non-TARP shares in AIG. Total AIG-related proceeds exceeded disbursements by $5.0 billion for Treasury as a whole.

Targeted Investment Program (TIP): The goal of TIP was to stabilize the financial system by making investments in institutions that are critical to the functioning of the financial system. Under TIP, Treasury purchased $20 billion in preferred stock from Citigroup and $20 billion in preferred stock from Bank of America. Treasury also received stock warrants from each company. Both Citigroup and Bank of America repaid their TIP investments in full in December 2009. In total, TARP's TIP commitments totaled $40 billion and, with the program closed, yielded $44.4 billion in total cash back.

Asset Guarantee Program (AGP): The AGP was created to provide Government assurances for assets held by financial institutions that were critical to the functioning of the Nation's financial system. Under the AGP, Treasury and FDIC committed to provide support to two institutions – Bank of America and Citigroup. Bank of America, however, ultimately decided not to participate, and paid TARP a termination fee of $276 million. TARP, in conjunction with the Federal Reserve, and the FDIC agreed to share potential losses on a $301.0 billion pool of Citigroup's covered assets. As a premium for the guarantee to Citigroup, TARP received $4.0 billion of Citigroup preferred stock, which was reduced by $1.8 billion upon early termination of the agreement. TARP completed the wind-down of the AGP in February 2013, and received

[11] Treasury's investment in AIG common shares consisted of shares acquired in exchange for preferred stock purchased with TARP funds (TARP shares) and shares received from the trust created by FRBNY for the benefit of Treasury as a result of its loan to AIG (non-TARP shares).

[12] A summary of the deal terms and transactions can be found in the Analytical Perspectives volume of the 2014 Budget.

more than $4.1 billion in proceeds from the AGP without disbursing any claim payments.

Automotive Industry Support Programs: In December 2008, Treasury established several programs to prevent the collapse of the domestic automotive industry. Through the Automotive Industry Financing Program (AIFP), TARP made emergency loans to Chrysler, Chrysler Financial, and GM. Additionally, TARP bought equity in Ally Financial, formerly GMAC, and assisted Chrysler and GM during their bankruptcy proceedings.

Treasury has liquidated its AIFP holdings and AIFP is now closed. In total, of the $12.4 billion committed to Chrysler, TARP was repaid $11.1 billion in total cash back.[13] On December 9, 2013, TARP sold its last remaining shares in GM, recouping a total of $39.0 billion from TARP's $49.5 billion investment in GM.[14] In total, Treasury recovered $19.6 billion on its investment in Ally Financial, roughly $2.4 billion more than the original investment of $17.2 billion. Through the Auto Supplier Support Program (Supplier Program) and the Auto Warranty Commitment Program (Warranty Program), Treasury disbursed $1.1 billion in direct loans to GM and Chrysler to support auto parts manufacturers and suppliers. Both the Supplier and Warranty Programs have closed and, in aggregate, these investments yielded $1.2 billion in total cash back. TARP's AIFP disbursements—including the GM, Chrysler, Ally (GMAC), Supplier, and Warranty Programs—totaled $79.7 billion and, with all programs effectively wound down, AIFP yielded $70.5 billion in total cash back.

TARP maintains an interest in the ongoing bankruptcy proceedings of the automotive entities it invested in. In 2016, TARP received a payment of $5.0 million from the GM bankruptcy proceedings. Additional future payments are possible, but not anticipated.

Term Asset-Backed Securities Loan Facility (TALF): The TALF was a joint initiative with the Federal Reserve that provided financing loans to private investors to facilitate the restoration of secondary credit markets. Treasury provided protection to the Federal Reserve through a loan to TALF's special purpose vehicle (SPV), which was originally available to purchase up to $20 billion in assets that would be acquired in the event of default on Federal Reserve financing. In March 2009 Treasury disbursed $0.1 billion of this amount to the TALF SPV to implement the program and the loss-coverage was subsequently reduced. In January 2013, Treasury and the Federal Reserve announced that Treasury's commitment of TARP funds to provide credit protection was no longer necessary because the accumulated fees collected through TALF exceeded the total principal amount of TALF loans outstanding. In total, Treasury had accumulated income of $685 million from TALF and the program is now closed.

Small Business 7(a) Program (SBA 7(a)): In March 2009, Treasury and the Small Business Administration (SBA) announced a Treasury program to purchase SBA-guaranteed securities (pooled certificates) to re-start the secondary market in these loans. Through a pilot program, Treasury purchased 31 SBA-guaranteed securities with an aggregate face value of approximately $368 million. Treasury reduced its commitment to the SBA 7(a) Program from $1 billion to $370 million, due to a significantly improved secondary market for these securities. In January 2012, Treasury completed the final disposition of its SBA 7(a) securities portfolio. The SBA 7(a) Program received total proceeds of $376 million, representing a gain of approximately $8 million to taxpayers.

Public Private Investment Program (PPIP): Treasury announced the Legacy Securities Public-Private Investment Partnership (PPIP) on March 23, 2009, to help restart the market for legacy mortgage-backed securities. Under the Program, Public-Private Investment Funds (PPIFs) were established by private sector fund managers for the purchase of eligible legacy securities from banks, insurance companies, mutual funds, pension funds, and other eligible sellers as defined under EESA. As of September 30, 2015, all PPIFs have been terminated. In total, after obligating $18.6 billion, PPIP investments yielded $22.5 billion in total cash back.

TARP Housing Programs: In February 2009 the Treasury announced a comprehensive housing program utilizing up to $50 billion in TARP funding. The Government-Sponsored Enterprises: Fannie Mae and Freddie Mac participated in the housing programs both as Treasury's financial agents, and by implementing similar policies for their own mortgage portfolios. Following the enactment of the 2010 Dodd-Frank Wall Street Reform Act, Treasury reduced its commitments to TARP housing programs to $45.6 billion. These programs fall into three initiatives:

- Making Home Affordable (MHA);
- Housing Finance Agency (HFA) Hardest-Hit Fund (HHF); and
- Federal Housing Administration (FHA) Refinance Program.[15]

Making Home Affordable (MHA): Programs under MHA included the Home Affordable Modification Program (HAMP), FHA-HAMP,[16] the Second Lien Modification Program, and Rural Development-HAMP.[17] MHA also included the Home Affordable Foreclosure Alternatives Program, which provided short sale and deed-in-lieu of foreclosure opportunities to borrowers, as well as assistance to borrowers who are unemployed or underwater

[13] Chrysler repayments of $11.1 billion include $560 million in proceeds from the sale of Treasury's 6 percent fully diluted equity interest in Chrysler to Fiat and Treasury's interest in an agreement with the United Automobile Worker's retiree trust that were executed on July 21, 2011.

[14] This excludes the $884 million loan to GM that was converted to GMAC common stock.

[15] The FHA Refinance Program is run by the Department of Housing and Urban Development (HUD), but is supported by Treasury through TARP with letter of credit to cover a share of any losses on these particular FHA Refinance loans. This program has also been referred to as the FHA Short Refinance Program or Option in other reporting.

[16] FHA-HAMP is administered by HUD; Treasury provides incentives for servicers and borrowers who qualify for Treasury FHA-HAMP

[17] For additional information on MHA programs, visit: http://www.makinghomeaffordable.gov/.

(owe more than their home is worth). On December 31, 2016 the application window for MHA closed. As of March 31, 2017, TARP has paid $16.8 billion in MHA related incentive payments and an additional $7.0 billion in TARP funds have been obligated but not yet disbursed.

HFA Hardest-Hit Fund (HHF): The $9.6 billion HHF provides the eligible entities of HFAs from 18 states and the District of Columbia with flexible funding to implement programs to prevent foreclosures and bring stability to local housing markets. In December 2015, P.L. 114-113 extended Treasury's authority to incur certain obligations for HHF funds through December 31, 2017; Treasury allocated $2 billion in additional HHF funds to eighteen currently participating jurisdictions in 2016. Participating jurisdictions now have until 2020 to utilize HHF funds.

FHA Refinance Program: FHA administers this program with TARP's support. The Program was initiated in September 2010 to allow eligible borrowers who are current on their mortgages but owe more than their home is worth, to refinance into an FHA-guaranteed loan if the lender writes off at least 10 percent of the existing loan. $8.1 billion was originally committed through a letter of credit agreement to cover a share of any losses on the loans and administrative expenses. This has subsequently been reduced to $100 million. The Program eligibility window closed on December 31, 2016, and the letter of credit expires in December 2022.