



Credit Calculations and Budget Documents

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Objectives

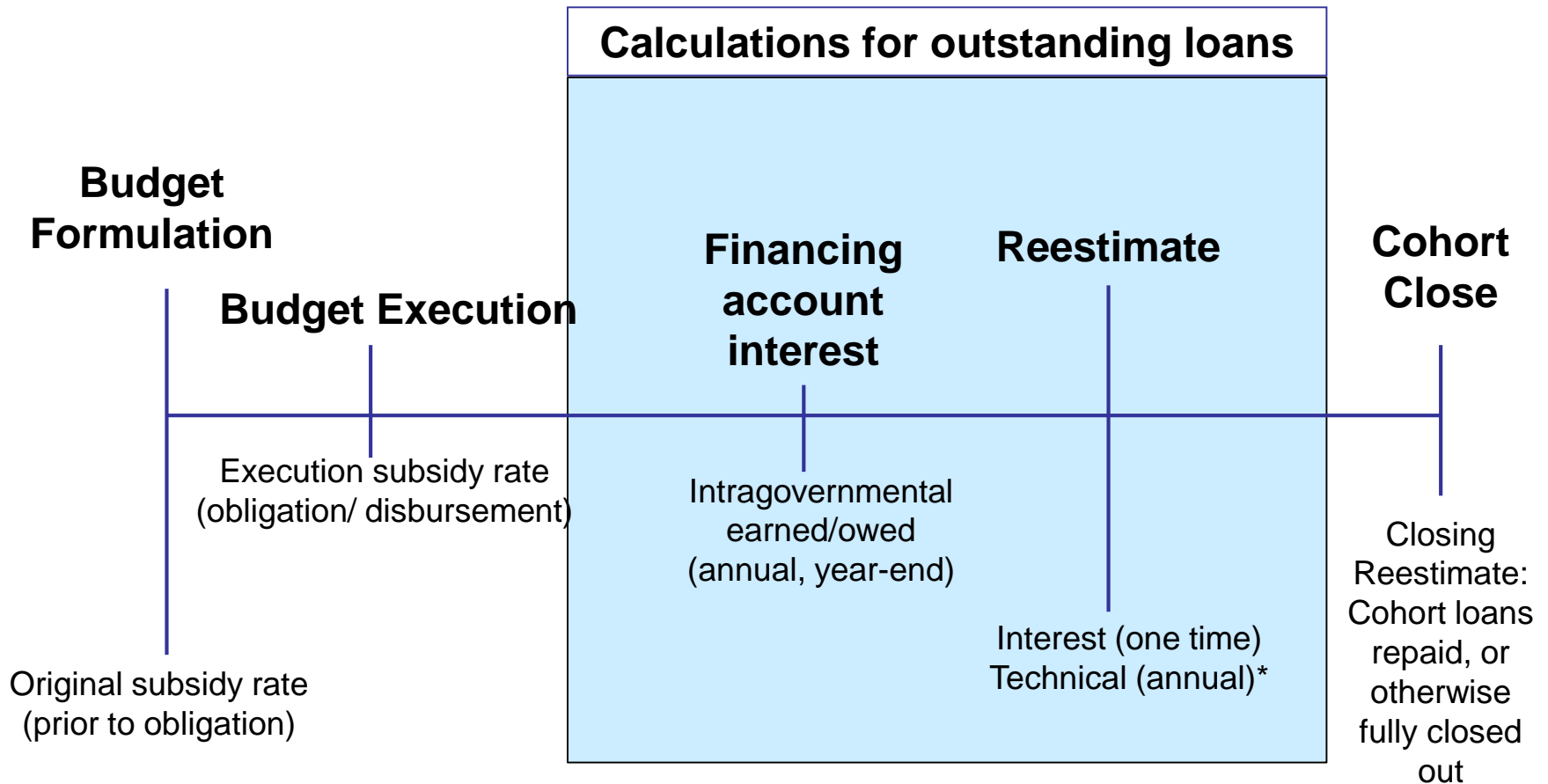
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- Overview of key credit calculations
- Where the data are in the budget
- Using data to answer questions and inform management decisions
- How data are derived from your submissions to OMB



Life of a Cohort

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*First technical following substantial disbursement is used to set the cohort interest rate.



FCRA Key Calculations*

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Original subsidy rate—Estimated lifetime cost per dollar of direct loan or loan guarantee at the point of obligation/commitment. (Subsidy cost = rate * face value)

Cohort interest rate/single effective rate—the one rate used to discount cashflows for cost estimates and financing account interest for credit calculations AFTER the original subsidy rate. Budget assumption single effective rate is used until first technical reestimate following substantial disbursement.

Financing account interest—interest paid to Treasury on financing account borrowing, and interest earned on financing account cash balances. (Annual calculation)

Interest rate reestimates—revised estimate of the original subsidy cost with the update from projected Treasury rates to actual Treasury rates. This reestimate is a subsidy rate, and is calculated once per cohort.

Technical reestimates—revised estimate of the subsidy cost, updated for actual transactions through the prior year and updated future expectations. Technical reestimates include the current reestimated subsidy rate, and dollar reestimates for outstanding loans and guarantees.

Interest on the reestimate—an adjusting payment to account for the time between when the loan was made and the time of the reestimate.

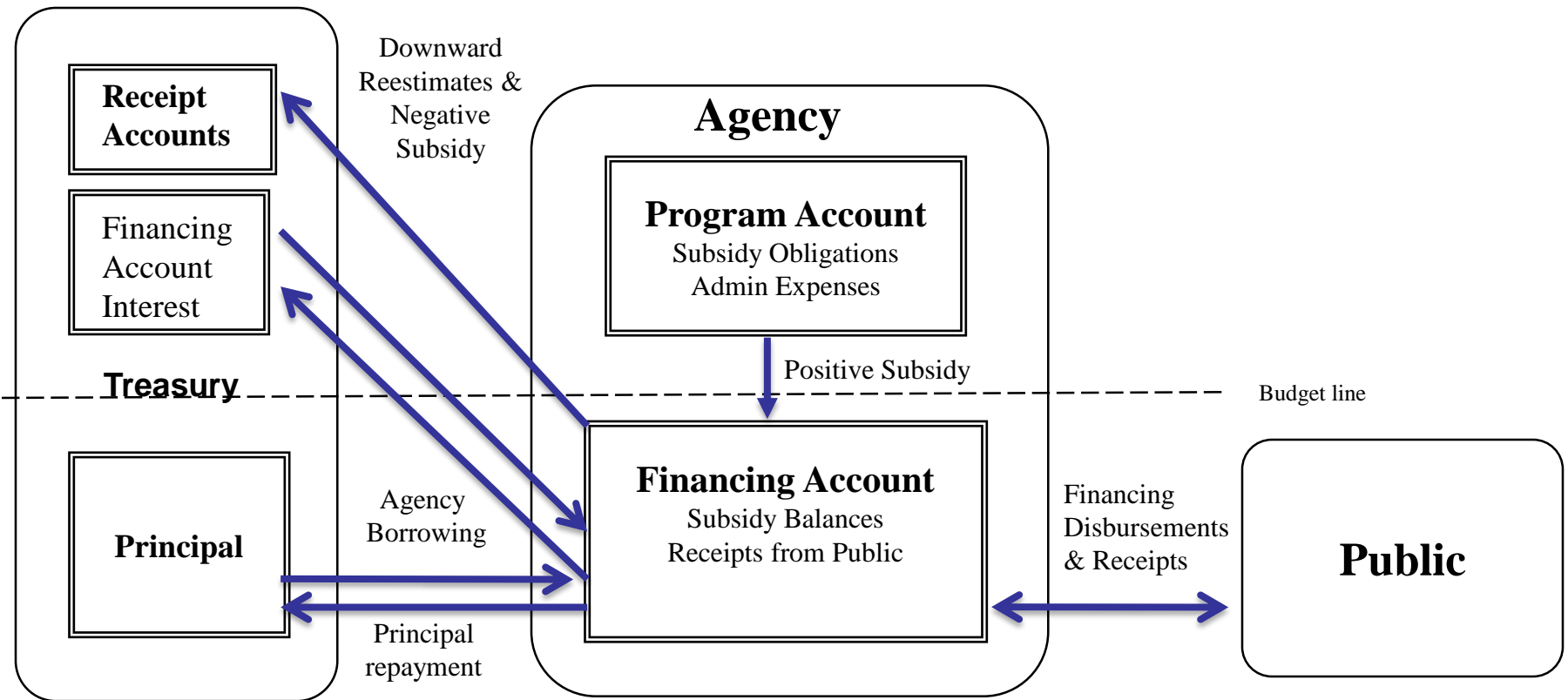
Financing account interest adjustments—adjusting payments to financing account balances for over/under payment of past financing account interest.

****All Credit Reform Calculations are accounted for by cohort.***



Account relationships

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Key building block of all credit data—CSC2 cashflows



Credit Calculations

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Original Subsidy Rates:

- How much program activity is reflected in the budget request?
- How much will it cost?

Reestimates:

- How have costs changed over time?
- What is driving the changes?

Means of Financing:

- How much is outstanding? Is the program growing?
- What are the nature of cashflows to and from the public?
- What's the maximum contingent liability for guarantees?
- What is the timing of these cashflows?

Financing account interest:

- How much does it cost to finance credit activities?



Credit Calculations in the Budget

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- Federal Credit Supplement
 - Detailed credit data by cohort, including assumptions underlying new credit subsidy costs
- Budget Appendix
 - Detailed account level data
 - Costs (program account/receipt account)
 - Means of financing (financing account)
- Analytical Perspectives
 - Summary information on the credit portfolio by account



Federal Credit Supplement

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- The Federal Credit Supplement reflects detailed credit data by risk category and cohort
 - New cohort subsidy rates, program volume, and assumptions underlying estimates
 - Reestimates of outstanding loans and loan guarantees, amounts disbursed to date
 - Disbursement rates for budget year cohorts
- http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/cr_sup_p.pdf
- Data is collected through the Credit Supplement Report Exercise, pulled directly from agency uploaded CSC2 cashflows, approved by OMB, with supplemental detail
- Questions
 - Is the program volume growing, stable, or declining?
 - How do different housing, energy, or business programs compare (default, recovery, etc.)?
 - What are the assumed contract terms?
 - How do current estimates of subsidy cost compare to original estimates? What is the source of the difference?
 - What is the disbursement pattern for new loans?



Original Subsidy Rate Detail

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Table 2. LOAN GUARANTEES: SUBSIDY RATES, COMMITMENTS, AND AVERAGE LOAN SIZE—Continued
(Dollars in thousands)

Agency, Bureau, Program and Risk Category	BEA Category	2012			2013		
		Subsidy rate (percent)	Commitments	Average loan size	Subsidy rate (percent)	Commitments	Average loan size
Indian Housing Loan Guarantee.....	Discretionary	1.46	360,000	86	0.83	900,000	170
Native Hawaiian Housing Loan Guarantees.....	Discretionary	0.93	33,000	440	0.50	38,000	422
Community Planning and Development:							
Community Development Loan Guarantees (Section 108).....	Discretionary	2.48	240,000	6,857	0.00	500,000	7,042
Housing Programs:							
FHA Mutual Mortgage Insurance (MMI) Fund:							
MMI Fund.....	Discretionary	-2.28	160,500,000	178	-5.38	149,000,000	178
MMI HECM.....	Discretionary	-1.52	18,271,000	244	-0.92	18,700,000	249
MMI Refi.....	Discretionary	0.00	51,062,019	178	0.00	51,862,019	178

Table 6. LOAN GUARANTEES: ASSUMPTIONS UNDERLYING THE 2013 SUBSIDY ESTIMATES—Continued
(In percentages, unless noted otherwise)

Agency, Bureau, Program and Risk Category	Subsidy rate	Composition of Subsidy				Loan Characteristics								
		Defaults, net of recoveries	Interest	Fees	All other	Loan maturity (years)	Borrower rate	Grace period (years)	Upfront fees	Annual fees	Other fees	Default rate ¹	Recovery rate ²	Percent guaranteed
Housing Programs:														
FHA Mutual Mortgage Insurance (MMI) Fund:														
MMI Fund.....	-5.38	2.96	.....	-8.34	.....	30	5.18	.....	1.00	1.23	.....	6.98	49.52	100.00
MMI HECM.....	-0.92	5.08	.....	-6.00	.....	40	5.55	.....	1.34	1.25	.....	33.08	110.83	100.00
MMI Refi.....	0.00	10.43	.....	-8.12	-2.31	30	5.91	.....	1.00	1.23	.....	26.28	55.79	100.00
FHA General and Special Risk Insurance Fund: ³														



Original Subsidy Rate – Federal Credit Supplement

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Clipboard		Font		Alignment		Number		Styles		Cells		Editing		
A1 Credit Subsidy Calculator version.....														
A														
10	Pro-rata method.....	Construction model												
11	All content displayed.....	See Tips-Views-Limitations menu for potential problems												
12	Purpose of this calculation.....	Budget formulation												
13	Interest rate assumptions.....	Budget forecast rates, Budget 2013 [2011-11-16]												
14	--	--	--	--	--	--	--	--	--	--	--	--	--	
15		Subsidy components												
16		--	--	--	--	--	--	--	--	--	--	--	--	
17	Year	Total			Subsidy	All	Single				effective			
18		Subsidy	Financing	Default	Reduction	Other	Discount				rate			
19			Subsidy	Subsidy	for Fees	components								
20	--	--	--	--	--	--	--	--	--	--	--	--	--	
21	2013	-5.38	0	2.96	-8.34	0	1.9609 (C)							
22	--	--	--	--	--	--	--	--	--	--	--	--	--	
23	Footnotes:													
24	The single effect rate is stated in terms of effective annual yield. For more details, see the help topic "How the single effective rate is calculated" on													
A1 Credit Subsidy Calculator version.....														
A														
52	Other Statistics:													
53		1. Lifetime defaults as a pct. of disb.....		6.976										
54		2. Lifetime recoveries as a pct. of defaults.....		-49.518										
55														
56		3. Amount and percent disbursed by year:		Year	Amount	Percent								
57		Disbursement year one.....		2013	149000000	100								
58		Disbursement year two.....		2014	0	0								
59		Disbursement year three.....		2015	0	0								
60		Disbursement year four.....		2016	0	0								
61		Disbursement year five.....		2017	0	0								



Reestimates – Federal Credit Supplement

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Table 8. LOAN GUARANTEES: SUBSIDY REESTIMATES ¹—Continued
(In percentages, unless noted otherwise)

Agency, Bureau, Program, Risk Category, and Cohort Year	Characteristics of Subsidy Reestimates							
	Original subsidy rate	Current reestimated rate	Percentage point change due to interest rates	Percentage point change due to technical assumptions	Current reestimate amount ² (\$ thousands)	Net lifetime reestimate amount ³ (\$ thousands)	Net lifetime reestimate amount, excluding interest (\$ thousands)	Total disbursements to date (\$ thousands)
FY 2011.....	2.34	4.29	.....	1.95	1,278	1,278	1,246	65,001
Housing Programs:								
FHA Mutual Mortgage Insurance Fund:								
Mutual Mortgage Insurance Program								
FY 1992.....	-2.60	-3.22	-0.82	0.20	8,522	-205,155	-260,152	43,436,966
FY 1993.....	-2.70	-2.67	-0.16	0.19	9,522	200,404	6,350	71,620,338
FY 1994.....	-2.79	-1.81	0.76	0.22	16,999	1,506,250	925,717	82,367,121
FY 1995.....	-1.95	-0.76	0.99	0.20	14,109	887,943	595,014	40,997,968
FY 1996.....	-2.77	-1.08	1.42	0.27	28,952	1,838,955	1,477,635	64,199,785
FY 1997.....	-2.88	-1.05	1.34	0.49	37,671	2,098,350	1,604,715	67,016,474
FY 1998.....	-2.99	-1.49	1.18	0.32	76,911	1,767,384	1,301,282	93,255,810
FY 1999.....	-2.62	-1.33	0.91	0.38	132,925	1,928,042	1,365,493	111,807,782
FY 2000.....	-1.99	0.16	1.69	0.46	99,916	2,401,190	1,723,503	84,858,576
FY 2001.....	-2.15	0.08	1.54	0.69	274,003	3,500,050	2,558,710	121,642,414
FY 2002.....	-2.07	0.31	1.41	0.97	189,522	3,892,806	3,011,628	131,415,258
FY 2003.....	-2.53	1.29	1.53	2.29	945,512	5,514,489	4,352,917	115,979,735
FY 2004.....	-2.47	1.80	0.98	3.29	515,095	5,413,557	4,534,612	107,616,910
FY 2005.....	-1.80	5.21	0.97	6.04	943,593	4,513,766	4,073,059	57,971,792
FY 2006.....	-1.70	6.42	1.52	6.60	1,432,267	4,917,538	4,210,125	51,765,426
FY 2007.....	-0.37	9.28	.....	9.65	2,238,564	6,293,020	5,484,150	56,509,219
FY 2008.....	-0.25	6.36	0.04	6.57	5,357,590	12,908,773	11,461,518	171,825,322
FY 2009.....	-0.05	1.07	0.09	1.03	2,471,376	4,138,813	3,771,229	330,458,853
FY 2010.....	-0.86	-1.28	0.04	-0.46	-673,421	-1,326,089	-1,293,428	297,614,083
FY 2011.....	-3.10	-4.53	3.10	-4.53	-3,501,672	-3,501,672	-3,376,081	217,747,580



Budget Appendix

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- The Appendix reflects account level detail, including appropriations language, narrative, subsidy cost estimates, and underlying cashflows to and from the Government (see HUD Appendix)

<http://www.whitehouse.gov/omb/budget/Appendix>

- Subsidy rates and reestimates collected through the Credit Supplement Report Exercise and additional data reported by the agency
- Questions (See HUD Appendix PDF)
 - What appropriations are being proposed for the program?
 - What is the purpose of the program?
 - How much in new activity is expected for the program?
 - What is the estimated subsidy cost by risk category, and in total?
 - What are total expected deficit effects associated with the program?
 - What are actual prior year default claims, and what is expected over the next two years?
 - What are actual recoveries for the prior year, and how are they anticipated to change?
 - What are estimated future costs of outstanding loans/guarantees?



Analytical Perspectives

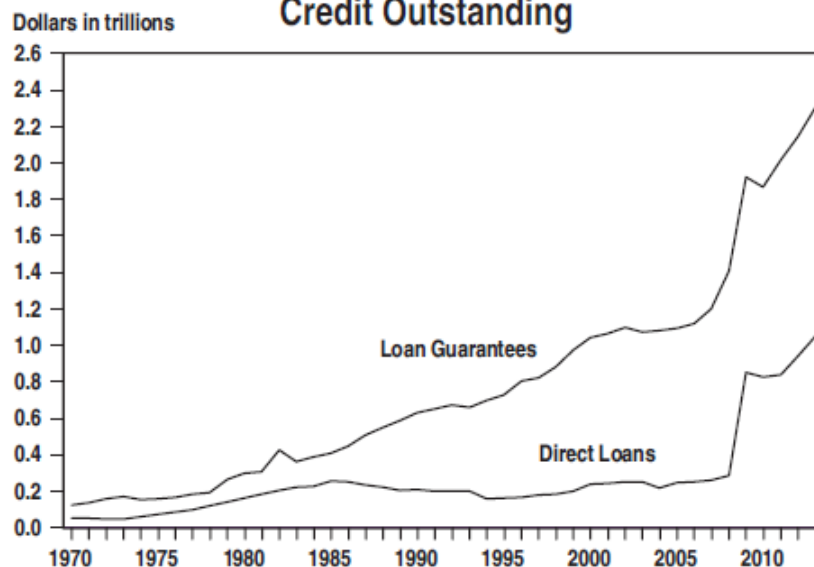
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- The Analytical Perspectives Chapter 23 includes summary data across programs, including current costs, reestimates, and transactions.

http://www.whitehouse.gov/omb/budget/Analytical_Perspectives

<http://www.whitehouse.gov/sites/default/files/omb/budget/fy2013/assets/topics.pdf>

Chart 23-1. Face Value of Federal Credit Outstanding





Analytical Perspectives: Costs of Credit Programs (including liquidating accounts)

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23. CREDIT AND INSURANCE

401

Table 23–2. ESTIMATED FUTURE COST OF OUTSTANDING FEDERAL CREDIT PROGRAMS
(In billions of dollars)

Program	Outstanding 2010	Estimated Future Costs of 2010 Outstanding ¹	Outstanding 2011	Estimated Future Costs of 2011 Outstanding ¹
Direct Loans:²				
Federal Student Loans	254	10	378	-14
GSE Mortgage-Backed Securities Purchase Program	164	-9	71	-2
Troubled Asset Relief Program ³	135	37	100	42
Education Temporary Student Loan Purchase Authority	100	-9	98	-13
Farm Service Agency (excl. CCC), Rural Development, Rural Housing	49	10	52	10
Rural Utilities Service and Rural Telephone Bank	45	2	47	2
State Housing Finance Authority Direct Loans	15	-1	15	1
Disaster Assistance	9	3	8	2
Housing and Urban Development	9	8	9	7
Export-Import Bank	9	3	9	2
Public Law 480	6	2	5	2
Agency for International Development	5	2	4	1
Department of Energy, Title 17, ATVM	3	1	7	1
Small Business Lending Fund ³ .....	.....	.....	4	-*
Other direct loan programs ³	24	5	31	11
Total direct loans	827	64	838	52
Guaranteed Loans:²				
FHA-Mutual Mortgage Insurance Fund	891	26	1,043	28
Federal Student Loans	390	15	328	10
Department of Veterans Affairs (VA) Mortgages	225	5	258	5
FHA-General and Special Risk Insurance Fund	134	9	138	8
Small Business Administration (SBA) ⁴	76	4	82	5
Farm Service Agency (excl. CCC), Rural Development, Rural Housing	69	3	83	4
Export-Import Bank	45	2	49	1
International Assistance	21	3	20	3
Commodity Credit Corporation	7	*	6	*
Government National Mortgage Association (GNMA) ⁴ .....	.....	*	.....	*
Other guaranteed loan programs ⁵	8	*	10	1
Total guaranteed loans	1,866	67	2,017	64
Total Federal credit	2,693	131	2,855	116

* \$500 million or less.

¹ Direct loan future costs reflect the financing account allowance for subsidy cost and the liquidating account allowance for estimated uncollectible principal and interest. Loan guarantee future costs reflect estimated liabilities for loan guarantees.

² Excludes loans and guarantees by deposit insurance agencies and programs not included under credit reform, such as Commodity Credit Corporation (CCC) commodity price supports. Defaulted guaranteed loans that result in loans receivable are included in direct loan amounts.

³ As authorized by law, table includes equity purchases under the TARP, the Small Business Lending Fund, and IMF Quota transactions provided in the Supplemental Appropriations Act of 2009. Future costs for TARP and IMF transactions reflected here are calculated using the discount rate required by the FCRA, adjusted for market risks, as directed in legislation.

⁴ Certain SBA data are excluded from the totals because they are secondary guarantees on SBA's own guaranteed loans. GNMA guarantee data are excluded from the totals because they are secondary guarantees on loans guaranteed by FHA, VA and RHS.

⁵ Includes Department of Energy Title 17 loan guarantees financed by private lenders.



Analytical Perspectives: Account Level Data

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Table 23–5. LOAN GUARANTEE SUBSIDY RATES, BUDGET AUTHORITY, AND LOAN LEVELS, 2011–2013

(Dollars in millions)

Agency and Program	2011 Actual			2012 Estimated			2013 Proposed		
	Subsidy rate ¹	Subsidy budget authority	Loan levels	Subsidy rate ¹	Subsidy budget authority	Loan levels	Subsidy rate ¹	Subsidy budget authority	Loan levels
Agriculture:									
Agricultural Credit Insurance Fund Program Account	1.38	43	3,143	0.82	26	3,150	0.52	17	3,150
Commodity Credit Corporation Export Loans Program Account	-0.86	-41	4,767	-0.76	-42	5,500	-0.81	-45	5,500
Rural Water and Waste Disposal Program Account	-0.85	*	32	1.59	1	31	1.06	*	47
Rural Community Facilities Program Account	3.95	8	196	4.73	9	191	6.75	1	16
Rural Housing Insurance Fund Program Account	-0.16	-29	16,890	-0.03	-7	24,130	-0.28	-67	24,150
Rural Business Program Account	5.06	70	1,387	5.58	48	869	6.86	67	981
Rural Energy for America Program	46.36	16	34	26.19	13	48	24.01	28	118
Biorefinery Assistance Program Account	31.10	89	285	26.80	185	691	.....	.....	.....
Commerce:									
Economic Development Assistance Programs .....	.....	.....	.....	15.32	10	65	18.06	7	39
Energy:									
Title 17 Innovative Technology Loan Guarantee Program	7.56	419	5,546	.....²	.....	2,200	.....	.....	.....
Health and Human Services:									
Health Resources and Services	2.72	1	32	4.63	*	15	3.70	*	12
Housing and Urban Development:									
Indian Housing Loan Guarantee Fund Program Account	0.83	5	577	1.46	5	360	0.83	7	900
Native Hawaiian Housing Loan Guarantee Fund Program Account	0.83	*	42	0.93	1	33	0.50	1	38
Native American Housing Block Grant	10.20	2	20	10.80	2	20	10.91	2	18
Community Development Loan Guarantees Program Account	2.34	6	275	2.48	9	365	.....	.....	500
FHA-Mutual Mortgage Insurance Program Account	-2.86	-6,740	236,017	-1.71	-3,937	230,633	-3.73	-8,188	219,562
FHA-General and Special Risk Program Account	-2.73	-468	17,175	-1.89	-364	19,285	-4.01	-661	16,435
Total	N/A	-6,553	446,705	N/A	-4,037	475,101	N/A	-9,467	446,968



Analytical Perspectives: Summary of Credit Activity

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Table 23-6. SUMMARY OF FEDERAL DIRECT LOANS AND LOAN GUARANTEES ¹
(In billions of dollars)

	Actual								Estimate	
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Direct Loans:										
Obligations	42.0	56.3	57.8	42.5	75.6	812.9	246.0	296.3	254.8	214.3
Disbursements	38.7	50.6	46.6	41.7	41.1	669.4	218.9	186.7	232.5	193.9
New subsidy budget authority ²	0.4	2.1	4.7	1.4	3.7	140.1	-9.2	-15.7	-22.8	-33.4
Reestimated subsidy budget authority ^{2,3}	2.6	3.8	3.1	3.4	-0.8	-0.1	-125.1	-66.8	17.9	.....
Total subsidy budget authority	3.0	6.0	7.8	4.8	-1.3	140.0	-134.3	-82.5	-4.9	-33.4
Loan guarantees:										
Commitments ⁴	300.6	248.5	280.7	270.2	367.7	879.2	507.3	446.7	475.1	447.0
Lender disbursements ⁴	279.9	221.6	256.0	251.2	354.6	841.5	494.8	384.1	397.6	375.4
New subsidy budget authority ²	7.3	10.1	17.2	5.7	-1.4	-7.8	-4.9	-7.4	-1.6	-10.9
Reestimated subsidy budget authority ^{2,3}	2.0	3.5	7.0	-6.8	3.6	0.5	7.6	-4.0	-3.8	.....
Total subsidy budget authority	9.3	13.6	24.2	-1.1	2.2	-7.2	2.8	-11.4	-5.4	-10.9

¹ Table includes equity purchases under the TARP and the Small Business Lending Fund, and IMF increases provided in the Supplemental Appropriations Act of 2009, as authorized by law.

² Credit subsidy costs for TARP and IMF transactions reflected here are calculated using the discount rate required under the FCRA, adjusted for market risks, as directed in legislation.

³ Includes interest on reestimate.

⁴ To avoid double-counting, totals exclude GNMA secondary guarantees of loans that are guaranteed by FHA, VA, and RHS, SBA's guarantee of 7(a) loans sold in the secondary market, and the TARP FHA Refinance Letter of Credit program.



For more information

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- OMB Circular A-11 contains definitions and exhibits
http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/s185.pdf
- Your OMB program examiner
- OMB's Budget Review Division Credit Crew
- Federal Credit Support Page
<https://max.omb.gov/community/x/6gLuFQ>
- Credit Supplement Report Exercise & Tools
<https://max.omb.gov/community/x/LgREFw>