

Calculating Financing Account Interest

OMB Annual Training

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White House Conference Center

What we'll cover

- Why do I need to calculate financing account interest?
- What data and tools do I need for these calculations?
- What are the mechanics underlying the calculations?
- Example calculations

Review

- Subsidy cost of a direct loan or loan guarantee program is the net present value of cash flows between the Government and the public
- Net present value calculation requires Treasury interest rates (discount rates)
- These rates determine the cohort interest rate (disbursement weighted average or single effective rate)

Financing Account Interest Earnings and Costs

- Credit financing accounts earn interest on balances
 - Interest earnings are received from the Treasury Financial Management Service
- Credit financing accounts pay interest on outstanding borrowings from Treasury
 - Interest payments are made to the Treasury Bureau of the Public Debt
- These earnings and costs affect the deficit

Discounting to the Present Value

The future value of money invested in the present.

Compounding interest example - Savings account in a bank

Amount deposited \$100 Interest rate 5%

Year 1..... $(1+0.05) \times \$100 = \105

Year 2..... $(1+0.05) \times \$105 = \110.25

Year 3..... $(1+0.05) \times \$110.25 = \115.76

Year 4..... $(1+0.05) \times \$115.76 = \121.55

Year 5..... $(1+0.05) \times \$121.55 = \127.63

The present value of money to be received or paid in the future.

Discounting example - Buying a bond

Face value of bond \$127.63 Discount rate 5%

Year 5..... $\$127.63 / (1+0.05) = \121.55

Year 4..... $\$121.55 / (1+0.05) = \115.76

Year 3..... $\$115.76 / (1+0.05) = \110.25

Year 2..... $\$110.25 / (1+0.05) = \105

Year 1..... $\$105 / (1+0.05) = \100

Interest Rate for Financing Account Interest

- Financing accounts **must** earn and pay interest at the same rate used to discount the credit subsidy cash flows for each cohort
 - For FY 1992-2000 cohorts, this is the disbursement-weighted average discount rate (calculated automatically by the C-Credit)
 - For FY 2001 and subsequent cohorts, this is the single effective rate, generated by the Credit Subsidy Calculator (in most cases, either budget formulation rate or final rate after 90% disbursement)

Financing Account Interest Calculations

- Agencies calculate financing account interest costs and earnings at year-end
- Agencies should use the Consolidated Credit Tool for interest calculations
- Calculations are required to be submitted to Treasury (BPD)

Financing Account Interest Calculations

- Calculation inputs:
 - Beginning-of-year cash balance
 - Beginning-of-year balance owed to Treasury
 - Transactions that add to/subtract from the cash balance or balance owed to Treasury

Financing Account Interest Calculations

- Transactions that add to/subtract from the cash balance or balance owed to Treasury
 - Net budgetary resources: subsidy transfers, modifications, reestimates, interest on reestimates
 - Collections from/disbursements to the public
 - Borrowing from Treasury
 - Payments of principal or interest to Treasury on outstanding borrowing

Financing Account Interest Calculations

- Interest earnings and costs are calculated using the average cash balance and average outstanding borrowing over the year
 - Payments that occur during the year/quarter are treated as occurring in the middle of the year/quarter
 - Payments that occur at the end of the year are included in the end-of-year balances, but not in the average cash balances

Projecting Financing Account Interest for the Budget

- The Consolidated Credit Tool calculates actual year-end interest
- A separate tool is available to assist in projecting future interest income or costs of credit financing accounts for MAX

For More Information

- Guidance on Financing Account Interest:
 - OMB Circular A-11, Ch. 185, especially Section 185.32-185.36 (Ch. 185 now includes former A-34 Section 70)
- Federal Credit Support Page:
 - <http://www.whitehouse.gov/omb/credit>
 - Consolidated Credit Tool and instructions (Utilities page)
 - Calculator for projecting the future interest income or costs of credit financing accounts

FAIC examples