

# Calculating Financing Account Interest

OMB Annual Training  
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# What we'll cover

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- 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 using the consolidated credit tool

# Review

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- 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

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- 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

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- 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
  - 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 from the first technical reestimate after 90% disbursement)

# Financing Account Interest Calculations

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- Agencies calculate financing account interest costs and earnings at year-end
- Agencies should use the C-Credit tool or the CSC2 to calculate financing account interest
  - If CSC2 is released in August, agencies should start using this year.
  - Financing Account Interest Calculator in the C-Credit tool will no longer be available once CSC2 is fully deployed.
- Calculations are required to be submitted to Treasury (BPD)

# Financing Account Interest Calculations Using the C-Credit

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- 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

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- 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

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- 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

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- The CSC2 and C-Credit Financing Account Interest Calculator provide the actual year-end financing account interest.
- A separate tool is available to project financing account interest for future years.

# For More Information

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- Guidance on Financing Account Interest:
  - OMB Circular A-11, Sec. 185, especially 185.32-185.36
- 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
- CSC2 instructions (cscbeta page)