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# Federal Financial Accounting and Auditing Technical Release 6: Preparing Estimates for Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act – *Amendments to Technical Release No. 3 Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act*

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Rescinding Technical Release 3: *Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act*

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## Status

Issued	January 22, 2004
Effective Date	Immediately
Affects	Technical Release 3: <i>Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act</i>
Affected by	None.
Related Guidance	Technical Release No. 3 (Revised): Auditing Estimates for Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act – <i>Amendments to Technical Release No. 3 Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act</i>

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## Summary

This technical release amends the implementation guidance for agencies to prepare and report credit subsidy estimates provided in Technical Release 3: *Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act* (TR3), July 1999. The original technical release (July 1999) contained both audit and accounting guidance. Technical Release 3 (revised) contains only the guidance for auditing estimates.

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## Introduction

1. The purpose of this technical release is to amend the implementation guidance for agencies to prepare and report credit subsidy estimates provided in Technical Release 3: *Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act* (TR3), July 1999. The most significant changes made between the original TR3 and this amended TR are as follows:
  - a. Removal of the audit guidance from this amended TR to only include the preparation guidance.
  - b. Clarification of OMB's role in the credit subsidy estimation and re-estimation process. OMB has statutory authority over subsidy estimates in the Budget but has delegated the authority to calculate those estimates to the agencies. This document outlines guidance and tools provided by OMB for entities to use during their calculations of the credit subsidy estimates. The guidance also states that OMB provides economic assumptions to be used in the estimation and re-estimation of subsidies.
  - c. Credit subsidy reestimates may now include 6 months of actual data and 6 months of projected estimates. This would be a change from the current requirement of 9 months of actual data and 3 months of projected estimates.

The original Technical Release 3 (July 1999) contained audit guidance, as well as accounting guidance. Concurrent with the issuance of this technical release on accounting guidance, Technical Release 3 is being amended to contain only the audit guidance.

2. Readers of this technical release should first refer to the hierarchy of accounting standards in Statement on Auditing Standards (SAS) 91, Federal Generally Accepted Accounting Principles Hierarchy (or see AU411). This technical release supplements the relevant accounting standards, but is not a substitute for and does not take precedence over the standards. This Technical Release is intended to facilitate consistency between the budgetary and financial statement presentation of subsidy estimates; however, fair presentation of subsidy estimates in the financial statements may be different from that in the President's Budget.
3. Federal agencies are required to account for direct loans and loan guarantees in accordance with Statement of Federal Financial Accounting Standards No. 2, *Accounting for Direct Loans and Loan Guarantees* (SFFAS No. 2), SFFAS No. 18, *Amendments to Accounting Standards for Direct Loans and Loan Guarantees*, and SFFAS No. 19, *Technical Amendments to Accounting Standards for Direct Loans and Loan Guarantees*. In developing the financial accounting standards in SFFAS No. 2, the Board recognized "the value of having financial accounting support the budget" and recommended that "accounting standards for credit be consistent with budgeting under credit reform." Further,

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the Board stated that "as more experience is gained, some modifications may be made in budgetary requirements. It is the intention of the Board that so long as the modifications are made on a credit reform basis and do not materially affect the basic recognition and measurement principles embodied in the accounting standards, accounting practices for direct loans and loan guarantees should change as needed in order to be consistent with the budget."<sup>1</sup> This technical release provides guidance on acceptable accounting practice in light of current budgetary requirements.

4. This technical release includes sections on:
  - OMB's role in the Subsidy estimation and re-estimation process and
  - Preparing Direct Loan and Loan Guarantee Subsidy Estimates
5. It also presents two appendices on:
  - Technical Glossary and
  - Summary of Selected Reporting Requirements
6. This technical release does not address loan asset sales and does not provide complete guidance for administrative expenses and pre-1992 direct loans and loan guarantees. Guidance on these areas can be found in SFFAS Nos. 2, 18, & 19 and OMB Circular No. A-11 and OMB Bulletin No. 01-09. Additional guidance on loan asset sales will be addressed separately in the future.

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## Background

7. Since the Credit Reform Act of 1990 was passed, agencies have struggled with the numerous challenges in implementing the various provisions of the act--especially formulating credit subsidy estimates. This technical release is designed to provide guidance on the preparation of credit subsidy estimates. There are three parts of subsidy: initial subsidy, modifications of subsidy and reestimates of subsidy. A goal of this technical release is to provide implementation guidance that will ensure greater financial statement consistency with the accounting standards set forth in Statement of Federal Financial Accounting Standards (SFFAS) No. 2, *Accounting for Direct Loans and Loan Guarantees*, SFFAS No. 18, *Amendments to Accounting for Direct Loans and Loan Guarantees*, and SFFAS No. 19, *Technical Amendments to Accounting for Direct Loans and Loan Guarantees*.<sup>2</sup>

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<sup>1</sup> SFFAS No. 2, paragraph 17. Also see SFFAS No. 2 paragraph 66.

<sup>2</sup> Authoritative guidance for the recognition of many transactions under credit reform is also included in SFFAS No. 7, *Accounting for Revenue and Other Financing Sources*, Appendix B, "Guidance for the Classification of Transactions," paragraphs 362-365 and 368 - 369.

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8. The technical release begins with a discussion of the OMB's role in the credit subsidy estimation and re-estimation process. It continues by addressing procedures for preparing estimates and reestimates—including acceptable interim alternatives in the absence of the ideal data store and estimation methods. This technical release also provides guidance on acceptable sources of documentation for subsidy estimates and reestimates.

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## Materiality

9. The provisions of this guidance need not be applied to immaterial items.

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## Effective Date

10. The guidance outlined in this technical release is effective immediately.

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## OMB Role

11. Under the Federal Credit Reform Act of 1990, as amended, OMB is responsible for subsidy estimates published in the President's Budget. OMB has delegated the authority to the agencies to calculate estimates but retains the responsibility and final approval of subsidy estimates, reestimates, and modification cost estimates. For agencies that have credit programs, OMB provides guidance and specific tools for credit budgeting.
12. OMB Circulars A-11 Preparation, Submission, and Execution of the Budget and A-129 Policies For Federal Credit Programs and Non-Tax Receivables provide guidance to agencies on definitions, procedures and rules for calculating subsidy estimates and reestimates for the President's Budget and modification cost estimates, obligation of budget authority for the credit program's cost, and credit and receivables policy.
13. The Credit Subsidy Calculator (CSC) is a computer program provided to the agencies to calculate the cost of direct loans and loan guarantees using the agencies' cash flow estimates. The OMB Circular A-11 requires that all agencies with credit programs must use the CSC to discount the credit subsidy estimate and reestimate cash flows that they are responsible for generating.

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14. OMB provides spreadsheets and instructions to calculate reestimates and interest paid and received for financing accounts.<sup>3</sup>
  15. Each year, in preparing the President's Budget, OMB provides agencies with a set of economic assumptions that must be used when determining budget estimates. Some of these assumptions, such as gross domestic product (GDP), are used for both credit programs and others. For credit programs specifically, the economic assumptions include the discount rates, which are derived from the Treasury yield curve, used to calculate subsidy estimates. The discount rates are built into the most recent version of the CSC. Prior year actual discount rates and credit related assumptions are available from OMB ten business days prior to the close of the fiscal year.

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## Preparing Direct Loan and Loan Guarantee Estimates

16. Preparing reliable and timely direct loan and loan guarantee subsidy estimates must be a joint effort between the budget, CFO and program offices at each agency. These offices should work together to ensure that the procedures and internal control<sup>4</sup> outlined in this section are implemented and operating as designed. However, some agencies may not be able to effectively implement all of these procedures, since they have not yet developed the ideal data stores or methods of estimation necessary. Therefore, until the required information on all cash disbursements and collections related to direct or guaranteed loans can be collected at the case level and summarized, by cohort and program, the acceptable alternatives identified in this technical release will need to be utilized to provide the necessary information for developing subsidy estimates.
17. Agencies must accumulate sufficient relevant and reliable data on which to base cash flow projections. It is important to note that agencies should prepare all estimates and reestimates based upon the best available data at the time the estimates are made. Agencies should prepare and report reestimates of the credit subsidies, in accordance with SFFAS No. 2, 18, and 19, to reflect the most recent data available as discussed in the reestimate section of this technical release. The OMB Circular A-11 also provides guidance

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<sup>3</sup> The CSC and spreadsheets for calculating reestimates and financing account interest are available on the Federal Credit Support Page (<http://www.omb.gov/credit>).

<sup>4</sup> Internal control is an integral component of an organization's management that provides reasonable assurance regarding the achievement of reliable financial reporting, effective and efficient operations, and compliance with applicable laws and regulations. Internal control consists of the control environment, risk assessment, control activities, information and communication and monitoring.

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on reestimating credit subsidies. Guidance on the types of supporting documentation that is acceptable is found in paragraphs 20 - 22 of this technical release.

18. In certain limited instances, informed opinion may be used to support cash flow projections in the absence of historical data. Informed opinion refers to the judgment of agency staff or others who make subsidy estimates based on their programmatic knowledge and/or experience without using a fully satisfactory information store and, in some cases, without using an econometric or other statistical model. Informed opinion may be used only as a last resort when relevant historical data and/or modeling capabilities are not available. This could occur when a new program has been established or when the Congress has changed an existing program in ways that cannot be represented by historical data. Informed opinion should therefore be used as an interim method only, and the agency should develop an action plan to establish an information store, appropriate models, and supporting documentation.
19. Certain conditions must be met before informed opinion will be considered an appropriate source of information. First, the expert's qualifications, such as professional or academic certification or length and kind of experience, must be assessed. Then, the basis of the stated opinion must be articulated and documented in detail. For example, a statistician may be best qualified to determine the appropriate kind of model for estimated cash flows using limited or imperfect data. Most importantly, the expert must document why that particular projection is appropriate for that particular program.
20. Documentation must be provided to support the assumptions used by the agency in the subsidy calculations. This documentation will not only facilitate the agency's review of the assumptions, a key internal control, it will also facilitate the auditor's review. Documentation should be complete and stand on its own, i.e., a knowledgeable independent person could perform the same steps and replicate the same results with little or no outside explanation or assistance. If the documentation were from a source that would normally be destroyed, then copies should be maintained in the file for the purposes of reconstructing the estimate.
21. Management should ensure that the following documentation is available for initial subsidy estimates, reestimates, and modifications of existing credit programs:
  1. Procedures for calculating the subsidy estimate,
  2. Review and approval process of the subsidy estimate, including the sign-off procedure within the agency,
  3. Calculation of the recorded subsidy estimates, including the underlying assumptions and cash flow model,
  4. Historical supporting documents used in the underlying assumptions,

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5. Documentation of relevant supporting actual cash and economic experience (including the date and source of reports, and how recently the data were updated), which may include:
- Cash reports on historical performance,
  - Historical data and trends, citing sources of information and relevant time frame,
  - Sensitivity analysis or other analysis that identifies the most critical factors,
  - Reports from the accounting or management systems showing trends
  - Actuarial studies,
  - Experience of other agencies with similar programs,
  - Emergencies (acts of God) or legislated changes (acts of Congress), such as changes in the program terms, maximum allowable loan amount, total program size, or characteristics of the credit program's borrower population, and
  - Economic and/or industry data and subsequent analyses, including industry studies, journal articles, trade papers, and third party studies.<sup>5</sup>
6. Documentation of relevant program design factors, which may include:
- Program definition including fees, grace period, term to maturity, borrower interest rates, legal definitions, and enabling or enacted legislation,
  - Legislation or regulations changing the terms, maximum allowable loan amount, total program size, or characteristics of the credit program's borrower population,
  - Program eligibility requirements,
  - Lender agreements detailing the terms of the guarantee, and
  - Borrower contracts outlining the terms and conditions of the loan or guarantee.
22. Management should ensure that the following documentation is available for new programs or changes to existing programs that may not have historical supporting documentation for cash flow assumptions and spreadsheets. In the absence of valid and relevant historical experience as the support for cash flow assumptions, the agency should document the basis for cash flow assumptions. Typical support will include:
- Relevant experiences from other agencies, including documentation of why another agency's experience is relevant, as well as similarities and differences (particularly possible biases) between the other agency's experience and the changes to existing programs or new programs,
  - Extrapolation from subsets of prior program activity, e.g., while prior loans were not targeted for single heads of households, it may be possible to identify prior loans that were made to single heads of households and the experience of such loans in prior records.

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<sup>5</sup> For example, past data may document the historical relationship between interest rates, whereas an independent study may demonstrate how trends in past data are expected to change in the future.



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- Assumptions used by underwriters for the purposes of determining eligibility, loan approval, or credit scoring.
  - Private sector proxies for risk, such as bond ratings to assess default risk, may be used when there is no relevant Federal Government experience. For example, an agency may consider using bond ratings for a state agency that finances similar loan programs, such as education, farm, or housing, with bonds.
  - Extrapolations from private sector lending experience including documentation explaining why this experience is applicable to the agency's credit program and possible biases for which an adjustment is needed, e.g., different borrower characteristics.
  - Expert opinion may also be used as an interim measure to support cash flow assumptions. In these cases, the agency must document the expert's qualifications, such as professional or academic certification or length of experience, as well as the basis of the stated opinion. In addition, the following documents should be maintained in support of the expert's opinion:
    - Memos from conversations with outside experts,
    - Reports and studies on similar industry conditions,
    - Minutes from internal meetings describing the basis for any assumptions or changes in assumptions, and
    - Previous studies conducted by the expert, including industry studies, journal articles, and third party studies.

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## Overall CFO/Budget Procedures and Internal Control

23. Document the procedures and flow of information used in developing the agency's subsidy estimates at a high level, e.g., flow chart with supporting narrative. These documents should be used to establish consistent procedures for developing the subsidy estimates across funds/programs/cohorts. These documents should also include a discussion of who is responsible for each step of the estimate as well as the review and approval process followed. Documented procedures are necessary to communicate information on the subsidy estimation and re-estimation process to employees as well as other interested parties, such as auditors and OMB examiners. Also, when employee turnover is experienced, these documented procedures will provide vital information for new employees on how to complete reliable, well supported estimates of the costs of credit programs.
24. Document the agency's cash flow model(s) used, the rationale for selecting the specific methodologies, and the degree of calibration<sup>6</sup> within the model(s). Also, document the

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<sup>6</sup> Calibration is the degree of precision within the model, i.e., the model's ability to accurately predict the cash flows of a given credit program. The degree of calibration within the model can be documented by charts or graphs showing projected cash flows versus the actual cash flows by year and cohort. This document would analyze the variance between projected cash flows and actual cash flows over time.

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sources of information, the logic flow, and the mechanics of the model(s) including the formulas and other mathematical functions. In addition, document the controls over the model(s) used by the agency in preparing cash flow worksheets. Further, document that the cash flow model(s) reflect the terms of the loan contracts and, in a loan guarantee program, the loan guarantee contracts. Additional details regarding internal control are discussed in the specific fund/program procedures and controls section of the technical release.

25. For agencies that have not yet implemented the ideal data store or implemented the estimation methods described in the Model Credit Program Methods and Documentation for Estimating Subsidy Rates and The Model Information Store (issue paper 96-CR-7), available from the AAPC web page (<http://fasab.gov/aapc/cdreform/othercrddoc.htm>), document management's strategic plans towards improving the agency's information store and estimation methods. This strategic plan should include who is responsible for various aspects of the plan and milestone dates for significant plan segments. Finally, it should document the progress at achieving the plan goals.
26. Ensure that general data and assumptions applicable to more than one cohort are used consistently for current year estimates and reestimates. For example, the overall economic conditions should be consistent for all cohorts within a program for a given fiscal year or management should document the reasons for the deviations, e.g., different economic assumptions could appropriately vary for specific geographic regions.
27. Ensure that estimates and all key assumptions used in preparing the budget and financial statements have been coordinated with both the program and accounting offices.
28. Management should assess the impact of changes in laws or regulations on the reliability of estimates and should ensure that the cash flow model reflects these changes. For example, a legislative program change may include provisions about maturity or type of borrowers that are outside the scope of past agency experience or may include program changes that shift the composition of new lending toward more or less risky borrowers.
29. The budget and accounting offices should work together to ensure that cash flow models are updated to reflect the actual cash flows and terms of the loan program recorded in the accounting records. Where material differences exist between the initial budgetary estimate and the actual cash flows, the differences should be investigated and reestimates and/or adjustments to the model should be made as required.<sup>7</sup> Actual obligations, disbursements, recoveries, and receipts should be recorded on a case-by-case basis. The detail of these

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<sup>7</sup> Reestimates may not be required in all cases where material differences exist between the initial budgetary estimate and the actual cash flows. For example, if offsetting differences exist in cash flows, such as positive difference in default recoveries and a negative difference in fees, a reestimate may not be necessary.

transactions should be reflected in the accounting records. However, when this level of detailed information is not available, it may be necessary for the agency to record transactions on another basis. For example, agencies may only receive information in summary from entities that actually make the loans that the Government guarantees. As a result, the agency may need to estimate cash flows based on a detailed analysis of the loan portfolio as a whole and allocate program level cash receipts and disbursements to individual cohorts on an appropriate basis. The basis for this allocation should be clearly documented. Transactions may also be recorded based on estimates derived from representative samples of loans, and/or related transactions, e.g., sampling of loan receipts to allocate cash receipts to cohorts.

30. Interest expense and income should be calculated in accordance with guidance from OMB. Discount rates used should be based on the authorized rates from OMB.
31. The agency should have an audit trail from individual transactions to the subsidiary ledgers to the general ledger. This will ensure that cash transactions can be identified by type so that they may be identified by subsidy expense component. SFFAS No. 18 states: "Reporting entities... should disclose for each program ...the subsidy expense by components as defined in paragraphs 25 through 29 [SFFAS No. 2], recognized for the direct or guaranteed loans disbursed in those years [current reporting year and the preceding reporting year]..."
32. When a direct loan or loan guarantee is modified as defined by SFFAS No. 2 (additional guidance provided in the OMB Circular A-11), the nature of the modification, the estimated effect on cash flows, and key assumptions should be documented in the same way as the original subsidy estimate. Modifications do not include routine administrative workouts of troubled individual loans or actions that are permitted within the existing contract terms.<sup>8</sup>
33. Ensure that the financial statements consolidate the activity of the program accounts, the financing accounts, and, if needed, the negative subsidy receipt accounts. Negative subsidy receipt accounts are established for programs that have negative subsidies or downward subsidy reestimates (except certain programs classified in the budget as mandatory).

<sup>8</sup> Neither the Federal Credit Reform Act as enacted in 1990 nor its amendments in the Balanced Budget Act of 1997 explicitly states that modifications do not include routine administrative workouts. However, the definition of modification in the 1990 Act was interpreted as excluding routine administrative workouts, and the definition in the 1997 amendments is interpreted in the same way. This interpretation is consistent with paragraph 44 of SFFAS No. 2. Further, the Joint Explanatory Statement of the Committee of Conference on H.R. 2015, the Balanced Budget Act of 1997, states that "workouts are not assumed to be included in the definition of modifications. The conference agreement does not change the treatment of workouts as implemented under the Federal Credit Reform Act of 1990."

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34. Cash flow spreadsheets should be prepared on a cohort or disbursement year basis, as appropriate. Cash flow spreadsheets prepared on a cohort basis include one line for each cash flow type (for example, principal payments, fees, or defaults). Cash flow spreadsheets prepared on a disbursement year basis include one line per disbursement year for each cash flow type (for example, principal payments associated with first year disbursements, principal payments associated with second year disbursements, etc.). The documentation for the Credit Subsidy Calculator provides details on how to indicate that a particular cash flow line is associated with a particular disbursement. When loan disbursements occur over multiple years, cash flow spreadsheets prepared on a disbursement year basis will produce a more precise subsidy calculation. However, when agencies are unable to provide this level of detail, combinations of multiple disbursement years may be used as an approximation.
35. Establish security over access to the OMB Credit Subsidy Calculator to adequately protect it from unauthorized use and corruption. For example, agency management should establish procedures to ensure that the desktop workstations where the OMB Credit Subsidy Calculator resides are password protected. In addition, the data used as input or generated as output should also be safeguarded and reviewed for errors.

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## Specific Fund/Program Procedures and Controls

36. Procedures in place should ensure that cash flow estimates for budgetary and financial statement reporting purposes are based on actual cash flows in previous years to the extent it is appropriate. Agencies should compare budgeted to actual cash flows to ensure that the cash flow models reflect the actual cash flows from the accounting records. Where material differences exist between the initial budgetary estimate and the actual cash flows, the differences should be investigated and reestimates and/or adjustments should be made as required.<sup>9</sup> Changes in key factors and assumptions used as a baseline (e.g., disbursement rates, default rates, recovery rates, time periods, etc.) must be explained, supported, and documented. For example, recoveries have averaged a given percentage for the past four years and this recovery rate had been consistently used in preparing cash flow worksheets. However, during the past year, events have occurred which have increased the recovery rate and these events are expected to continue in the future. As a result, the agency may decide to use a recovery rate above the historical average.

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<sup>9</sup>Reestimates may not be required in all cases where material differences exist between the initial budgetary estimate and the actual cash flows. For example, if offsetting differences exist in cash flows such as a positive difference in default recoveries and a negative difference in fees, a reestimate may not be necessary.

37. Sensitivity analysis (or other testing of the agency cash flow models used in developing the subsidy estimates) should be performed to identify which cash flow assumptions have the greatest impact on the credit subsidy rate. To perform sensitivity analysis, management must first identify the root of each cash flow assumption<sup>10</sup> to ensure that all subsequently related formulas and assumptions are adjusted appropriately. Generally, each root assumption should be individually adjusted by a fixed proportion (e.g., plus and minus 10 percent), and the revised cash flows run through the OMB Credit Subsidy Calculator to determine the assumption's effect on the subsidy rate. Timing assumptions for defaults, recoveries, prepayments, etc. should also be adjusted by a fixed amount (e.g., plus and minus one year). The recovery assumption should be adjusted along with the timing of recovery assumption to ensure that a realistic relationship between these two assumptions continues to exist, i.e., to test the sensitivity of recoveries, the default timing assumption must also be adjusted to ensure that the recovery occurs after the default. Those assumptions that caused the largest change in the subsidy rate are determined to be the key cash flow assumptions.
38. Key assumptions, identified by the sensitivity analyses that are utilized in the process of developing estimates, should be documented including the rationale, justification, and source of supporting documentation.
39. The accounting office should maintain detailed subsidiary accounting records by program, cohort, risk category (if applicable) and case (individual direct loan or loan guarantee).
40. The cash flow estimation process, including all underlying assumptions, should be reviewed and approved at the appropriate level including revisions and updates to the original model. Cash flow models should be tested for reliability as part of the approval process by comparing estimated cash flows to actual cash flows and assessing the model's ability to replicate a credit program's performance.
41. The agency should do trend analysis of the credit subsidy expense components, i.e., interest, defaults, fees, and other. When unusual fluctuations are identified, they should be investigated and explained.
42. The agency must document the options used in the OMB Credit Subsidy Calculator and the reasons those options were selected.<sup>11</sup>

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<sup>10</sup> The root of the cash flow assumption is the starting point for the assumption, i.e., there are no preceding formulas or related inputs that would affect the assumption.

<sup>11</sup> OMB contracted with an independent public accounting firm to review the OMB Credit Subsidy Calculator's compliance with the Credit Reform Act. Results of the audit may be obtained from the applicable OMB program examiner or OMB's Budget Analysis Branch.

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43. The agency should determine whether the proper dollar scale (e.g., whole dollars, hundreds, thousands, etc.) for the cash flow spreadsheets was used. Some program subsidy rates, particularly those for programs disbursing over several years, may be influenced slightly with the scale of the program. Therefore, management should determine whether rounding to three decimal places has no significant effect on the cash flow spreadsheet values and the subsidy rate.
  44. The agency should determine whether the OMB Credit Subsidy Calculator options selected properly reflect specific characteristics of the applicable credit program. For example, the OMB Credit Subsidy Calculator option for the timing of principal and interest payments for direct loan program and the timing of commitments and disbursements by the private lender of a loan guaranteed should agree with the program's credit terms.
  45. The agency should review the OMB Credit Subsidy Calculator output to determine whether any warning messages are listed and determine why the situation causing the warning message was not resolved and whether not eliminating the error could have any impact on the subsidy rate calculation. Also, if applicable, the agency should determine whether the suppression of any error messages was appropriate by checking the agency's cash flow spreadsheet to determine whether the "suppress warnings" command was used and assess the impact these suppressed error messages could have on the cash flows.
  46. The agency should review trends in the direct loan subsidy allowance account balance and/or the liability for loan guarantees account balance as compared to the outstanding balances of loans and/or guarantees. Any unusual fluctuations identified should be investigated and explained. When unusual fluctuations occur, an analysis by cohort may be helpful to identify the causes.

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## Reestimates

47. OMB Circular A-11 has established criteria for when agencies should calculate credit subsidy reestimates for the budget. It states that "interest rate reestimates of the subsidy cost of a cohort of direct loans or loan guarantees must be made when a cohort has substantially disbursed (i.e., when at least 90 percent of the direct loans or guaranteed loans have been disbursed.) The computation should be made after the close of the fiscal year in which this criterion is met, unless a later time within the same fiscal year is approved by the OMB representative with primary budget responsibility for the credit account"; and that "technical reestimates of the subsidy cost of a cohort of direct loans or loan guarantees must be made after the close of each fiscal year as long as the loans are outstanding, unless a different plan is approved by the OMB representative with primary budget responsibility for the credit account. The different plan might be with regard to the time when reestimates are made within the year or the frequency of reestimates." If the plan

allows technical reestimates to be made less frequently than every year, it should require technical reestimates to be made for any year when any one of four conditions is met.<sup>12</sup> The period for which reestimates are to be calculated includes the first year that loans were disbursed. Reestimates are calculated as of the end of the fiscal year regardless of when the actual computation is performed.

48. SFFAS No. 2 states that "the subsidy cost allowance for direct loans and the liability for loan guarantees are reestimated each year as of the date of the financial statements. Since the allowance or the liability represents the present value of the net cash outflows of the underlying direct loans or loan guarantees, the re-estimation takes into account all factors that may have affected the estimate of each component of the cash flows, including prepayments, defaults, delinquencies and recoveries.<sup>13</sup> Any increase or decrease in the subsidy cost allowance or the loan guarantee liability resulting from the reestimates is recognized as a subsidy expense (or a reduction in subsidy expense) as of the end of the fiscal year to which it applies. Reporting the subsidy cost allowance of direct loans (or the liability of loan guarantees) and reestimates by component is not required." SFFAS No. 7, paragraphs 362-363, states that "[a] negative subsidy..." or "...downward subsidy reestimate is recognized as a direct reduction in expense, not as a revenue, gain, or other financing source." In addition, SFFAS No. 18 requires that the interest rate and technical reestimates be disclosed separately for each program.
49. The table below summarizes the reestimate requirements for the budget and financial statement presentations.

<sup>12</sup> These four conditions are: (1) based on periodic schedules established in coordination with OMB, (2) when a major change in actual versus projected activity is detected, (3) when a material difference is detected through monitoring "triggers" developed in coordination with OMB, and (4) when a cohort is being closed out.

<sup>13</sup> OMB has an alternative method of computing reestimates, the "balances approach," which compares (a) the net present value of the best current estimate of the remaining cash flows with (b) the net balance owed to Treasury (for direct loan programs) or the net balance on deposit with Treasury (for loan guarantee programs). In estimating the net present value of the remaining cash flows, agencies would still need to estimate future cash flows based on actual experience with cash flows to date and forecasts of other factors. They would therefore still need to maintain historical cash flow data, at the subsidy component level, to analyze the sources of error in the estimates of cash flows for past periods.

	Budget	Financial Statement
Interest Rate Reestimate	<u>Frequency:</u> At least one time when the cohort is 90 percent disbursed - regardless of financial statement materiality. In addition, reestimates should be recorded in the Budget whenever made for financial statement purposes.	<u>Frequency:</u> Whenever the change in the interest rate materially affects the financial statements or, if no material change occurs prior to the cohort being 90 percent disbursed, at least one time when the cohort is 90 percent disbursed.
	<u>Timing:</u> At the end of the fiscal year.	<u>Timing:</u> Typically as of the end of the fiscal year.
Technical Reestimate	<u>Frequency:</u> Annually unless a different plan is approved by OMB - regardless of financial statement materiality. In addition, reestimates should be recorded in the Budget whenever made for financial statement purposes.	<u>Frequency:</u> Any year when material.  Also, agencies must disclose significant subsequent events after the reestimate date in the financial statement footnotes.
	<u>Timing:</u> At the end of the fiscal year unless otherwise approved by OMB.	<u>Timing:</u> Typically as of the end of the fiscal year.  Also, agencies must disclose if the reestimate was calculated at a time other than the end of the fiscal year.

50. An interest rate reestimate of the subsidy cost of a cohort of direct loans or loan guarantees is made for the difference between (a) the interest rate assumed in the President's budget for the fiscal year in which the subsidy is obligated, and (b) the actual annual interest rates prevailing during the years of disbursement. OMB Circular A-11 instructs that an interest rate reestimate should be made when the cohort is 90 percent disbursed.<sup>14</sup> However, when an interest rate change has occurred that would materially affect the financial statements,

<sup>14</sup> If the interest rate assumption is a key assumption, agencies should consider using sensitivity analysis, as discussed in the section entitled *Specific Fund/Program Procedures and Controls*, to determine whether the change in interest would have a material effect on the financial statements. To do this, agencies would need to repeatedly adjust the interest rate by predetermined increments, e.g., plus or minus 100 basis points, and re-run the revised cash flows through the OMB Credit Subsidy Calculator to determine the impact on the subsidy rate. Agencies should then multiply the revised subsidy rate by the assumed disbursement amount, to calculate financial statement impact. As a result, agencies will be able to document the amount of interest rate change that would be necessary, under an assumed disbursement amount, to materially affect the financial statements.



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agencies should calculate the interest rate reestimate and include the reestimate in the current year's financial statements.

51. A technical reestimate of the subsidy cost of a cohort of direct loans or loan guarantees is made for all changes in assumptions other than discount rates. If OMB has approved a plan that permits an agency to make technical reestimates less often than annually, the agency should monitor the indicators specified in that plan to determine whether a reestimate is needed for other reasons: in particular, because it is needed to comply with other parts of that plan and/or because the reestimate has a material financial statement impact.
52. An agency that does not plan to perform technical reestimates annually must establish a systematic process to determine each year whether a reestimate is necessary and, if material to the financial statements as a whole, the reestimate must be reflected in the current year's financial statements. If an acceptable monitoring process is not in place, reestimates must be made annually for the financial statements. An acceptable process would generally include the following:
  - a. *A comparison between actual experience to date and the assumptions that had been previously used for the period to date.* -- An acceptable process would regularly (but not less than annually) compare the actual cash flows, by subsidy component, reported by the accounting office at the program level to those used in the previous budget estimates.
  - b. *Differences between the current best estimate of future cash flows and the assumptions that had been previously used.* -- An acceptable process would also include procedures that identify and systematically monitor significant economic and other assumptions underlying cash flows in order to determine whether changes have occurred in the expected future cash flows that make a reestimate necessary. The significant assumptions would be expected to differ from program to program according to each program's own attributes. Economic changes could include, for example, recessions, changes in interest rates, and changes in the market value of collateral or international economic factors (such as trade disruptions). Other changes could include, for example, legislative or administrative program changes (of the kind that do not meet the OMB Circular A-11 definition of a modification), operational changes (such as reduction in staff because of budgetary constraints that would affect loan servicing), environmental changes, or war. The impact of these changes on the estimates of future cash flows (and, if necessary, the cash flow models) must be assessed and documented.
  - c. *Special emphasis for programs that have peak periods* - Where applicable, an acceptable monitoring process should provide extra emphasis during periods when cohorts are experiencing significant increases or decreases in defaults, prepayments, recoveries, or other cash flows. For example, suppose for one particular program historical experience has demonstrated that a cohort usually experiences increased

defaults starting in year three which peak in years 6 through 8. Historical experience has further demonstrated that defaults decline steadily beginning in year nine, until a stabilized rate is reached in years 13 through 30. During years 3 through 13, the agency's monitoring efforts should compare actual cash flows for defaults reported by the accounting department to estimated default cash flows as a way of validating the default cash flow assumption and determining whether a reestimate or adjustment to the overall rate or timing is necessary. However, once the monitoring system has demonstrated that the cohort has stabilized and no significant unusual events have occurred, it is less likely that annual reestimates would be necessary.

53. In years for which reestimates are made, they should normally be made as of September 30 of the reporting period using a data base that is complete through the same date. If OMB has approved a plan to make reestimates at another time during the year, this will be acceptable for financial statement purposes if the following conditions are met:
  - a. The technical reestimate of the subsidy cost is made for a 12-month period ending not earlier than March 31, using actual transaction data through March 31 of the reporting year. Agencies may also use actual transaction data beyond the March 31 date through to the end of the reporting period. The reestimated subsidy cost is compared with the previous estimate of the subsidy cost for the year ended September 30.<sup>15</sup> The difference is the amount of the reestimate. Alternatively, for the last two quarters of the fiscal year (or for a portion of this period), agencies may estimate those quarters' cash flows on a reasonable basis e.g., the last two quarters' cash flows from the previous fiscal year, or if the cash flows are relatively uniform, two quarters of the originally estimated cash flows, or the average cash flows of the previous two quarters. For cohorts with an interest rate reestimate, the interest rate reestimate and a revised technical reestimate<sup>16</sup> would be calculated after September 30 using actual interest rates.
  - b. In order to use this approach, agencies must ensure that the monitoring process described previously includes monitoring major events occurring during the third and fourth quarters that could have a significant impact on the subsidy reestimate. If such an event is identified, an adjustment to the reestimate of the affected cohorts may be necessary.
  - c. Agencies may be unable to calculate, and reflect in the financial statements, a reestimate for major events occurring during the third and fourth quarters because, at this point, the effects of the major event may not yet be determinable. In this case,

<sup>15</sup> See footnote 12 for a discussion of the "balances approach" for calculating reestimates.

<sup>16</sup> A revised technical reestimate in this context is limited to the change in the reestimate due to revised discount rates and not to any difference in cash flows.

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- agencies must disclose such events in the footnotes as a potential material uncertainty. The disclosure will further acknowledge that this/these event(s) will be taken into consideration in making the reestimate for the following year or once the impact of the events is determinable.
- d. This policy, when adopted by an agency, with OMB's approval, will be disclosed in the footnotes to the agency's financial statements.
54. If OMB has approved a plan to make reestimates at another time during the year that does not meet the conditions detailed in paragraph 47 above, its financial statement impact should be evaluated. The conditions listed in paragraph 47 are just one acceptable scenario that details the steps that agencies should perform to ensure that the financial statements are materially correct. Agencies may develop alternative procedures to ensure financial statements are fairly presented without performing a full reestimate as of the date of the financial statements. The agency and OMB examiner may wish to collaborate in developing the alternative procedures that will best address each individual agency's workload, the needs of the budget, financial statements, and all applicable standards.
55. If the most recent estimated cash flows of a cohort are different from the actual experience, these differences and the reasons for these differences may affect the future estimated cash flows of that cohort. The effects on the future cash flows of that cohort need to be assessed and included in the reestimate, and the reasons for the estimated effects need to be documented.
56. Reestimates for any of the reasons in this section should be completed, submitted to OMB, and included in the current year's financial statements, on a timely basis.<sup>17</sup> If OMB has approved a plan that permits an agency to make technical reestimates less often than annually, written documentation of the plan and OMB's approval should be obtained. If a technical reestimate is not made in a particular year, documentation should explain why that is consistent with the approved plan and provide assurance (in the ways specified above) that the lack of a technical reestimate would not have a material financial statement impact.<sup>18</sup>

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<sup>17</sup> Fair presentation of subsidy estimates in the financial statements may differ from estimates in the budget.

<sup>18</sup> OMB has established a four-step process, outlined in OMB Circular A-11, that allows for calculating budgetary technical reestimates for the budget at times other than the beginning of each fiscal year following the year in which the initial disbursement was made, as long as the loans are outstanding (subject to OMB approval). However, this does not allow agencies to omit material reestimates from the current year financial statements or to postpone including material technical reestimates in the financial statements until a subsequent year. Conversely, the OMB process may require agencies to make technical reestimates for the budget that are not material to the financial statements.

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57. Reestimates submitted by the budget office to OMB should be recorded in the accounting records. The agency should have an audit trail from individual transactions to the subsidiary ledgers to the general ledger. This will ensure that cash transactions can be identified by type so that they may be identified by subsidy expense component. SFFAS No. 18 states: "Reporting entities... should disclose for each program ...the subsidy reestimates by components as defined in paragraph 32 [SFFAS No. 2] for those years [current reporting year and the preceding reporting year]."
58. If the cause of the reestimate affects the cash flows of future cohorts, the assumptions used to produce cash flow estimates and/or the method of estimating cash flows should be revised appropriately for the budget estimates of future cohorts.

<p>The provisions of this Technical Release need not be applied to immaterial items.</p>
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## Appendix A: Technical Glossary

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### **Allowance for Subsidy**

*See Direct Loan Subsidy Allowance Account definition.*

### **Assumptions**

basic beliefs about the future operating and functional characteristics of the loan or group of loans or loan guarantees. Types of assumptions include:

Cash flow assumptions - all known and/or forecasted information about the characteristics and performance of a loan or group of loans or loan guarantees. Examples include estimates of loan maturity, borrower interest rate, default/delinquency rate, timing of defaults, overall impact of changes in economic factors, etc.

Model assumptions - determinations of how cash flow assumptions are applied through the life of the cohort. For example, determining whether the entire assumed amount of defaults should be applied in 1 year or whether a constant or variable proportion of the assumption value should be allocated to each year. The allocation of cash flows over time is the selected model form and is just as influential as the cash flow assumptions.

### **Case level**

each individual loan or guarantee within a cohort.

### **Cash flow stream**

the agency's projection of the dollar amount for the scheduled cash flows and deviations from scheduled cash flow items for each year over the life of the cohort.

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## Cash flows

Estimates of payments to or from the Government over the life of a loan or group of loans or loan guarantees. For direct loans, these may include: loan disbursements, repayments of principal, payments of interest, and any other payments such as prepayments, fees, penalties, and other recoveries. For loan guarantees, these may include: payments by the Government to cover defaults and delinquencies, interest subsidies, payments to the Government, such as origination and other fees, penalties and recoveries, and any other payments.

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## Cohort

all direct loans or loan guarantees of a program for which a subsidy appropriation is provided for a given fiscal year, even if disbursements occur in subsequent years. For direct loans and loan guarantees for which a subsidy appropriation is provided for one fiscal year, the cohort will be defined by that fiscal year. For direct loans and loan guarantees for which multi-year or no-year appropriations are provided, the cohort will be defined by the year of obligation.

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## Direct Loan Subsidy Allowance Account

the balance maintained in the general ledger that represents the difference between the current outstanding loans receivable balance and the present value of estimated cash outflows minus the present value of the estimated cash inflows over the remaining life of the direct loans. The subsidy allowance is subtracted from the loans receivable balance when calculating the net loans receivable balance. A similar account may also be used for defaulted guaranteed loans.

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## Econometrics

the application of statistical methods to the estimation of economic relationships.

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## Financing Account

the non-budgetary account or accounts associated with each credit program account that holds balances, receives the subsidy cost payment from the credit program account, and includes all other cash flows to and from the Government resulting from post-1991 direct loans or loan guarantees. Each program account is associated with one or more financing accounts,

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depending on whether the account makes both direct loans and loan guarantees (separate financing accounts are required for direct loans and loan guarantees).

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## **Fund**

an aggregation of programs into a common grouping consistent with how the Congress provides appropriations - i.e., the program and financing accounts together and, if needed, the negative subsidy receipt accounts. (This term has other meanings in different contexts.)

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## **Inputs**

in the context of Federal credit, cash flow data elements used to develop spreadsheet calculations.

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## **Internal control**

an integral component of an organization's management that provides reasonable assurance regarding the achievement of reliable financial reporting, effective and efficient operations, and compliance with applicable laws and regulations. Internal control consists of the control environment, risk assessment, control activities, information and communication and monitoring.

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## **Key assumptions**

assumptions that have been established, through sensitivity analysis or other means, to be the elements that have a large impact on estimates, and thus are the most important factors in determining the cost of a loan or group of loans or loan guarantees.

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## **Liability for Loan Guarantees Account**

the balance maintained in the general ledger that represents the present value of estimated cash outflows minus the present value of the estimated cash inflows over the remaining life of the loan guarantees.

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## Liquidating Account

the budget account that includes all cash flows to and from the Government resulting from pre-1992 direct loans or loan guarantees, unless they have been modified and transferred to a financing account.

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## Negative Subsidy Receipt Account

the budget account for the receipt of amounts paid from the financing account when there is a negative subsidy cost for the original estimate or a downward reestimate. For mandatory programs, negative subsidies and downward reestimates may be credited directly to the program account as offsetting collections from non-Federal sources.

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## OMB Credit Subsidy Calculator

computer software developed by OMB for discounting cash flows in estimating credit subsidies. It uses agency cash flow inputs to compute the net present value at the point of disbursement and the subsidy rate associated with those cash flows.

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## Program

in the context of Federal credit, an aggregation of cohorts which are linked by common terms, conditions, regulations, and/or mission goals; often a sub-division of a fund or the budgetary financing account.

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## Program Account

the budget account into which an appropriation to cover the subsidy cost of a direct loan or loan guarantee program is made and from which such cost is disbursed to the financing account. Program accounts usually receive a separate appropriation for administrative expenses.

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## Risk category

subdivisions of a cohort of direct loans or loan guarantees into groups of loans that are relatively homogeneous in cost, given the facts known at the time of obligation or commitment. Risk



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categories will group all loans obligated or committed for a program during the fiscal year that share characteristics predictive of defaults or other costs. All cohort level guidance in this technical release also applies to risk categories when they are used.

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## **Service or line of business**

an aggregation of funds into a common grouping: for example, grouping funds into single family or multifamily designations. The following example is provided to illustrate the relationship the above terms have to each other and show how they may be aggregated for financial statement purposes. Agencies should consult applicable OMB guidance to determine what level of aggregation is most appropriate and acceptable.

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Business line or service: Farm Service Agency

Fund:

- A. CCC Export Guarantees
- B. Agricultural Credit Insurance Fund

Program:

- B1. Farm Ownership Loans
- B2. Farm Operating Loans, subsidized
- B3. Farm Operating Loans, unsubsidized

Cohort:

- B3a. FY 1992 Farm Operating Loans, unsubsidized
- B3b. FY 1993 Farm Operating Loans, unsubsidized
- B3c. FY 1994 Farm Operating Loans, unsubsidized
- B3d. FY 1995 Farm Operating Loans, unsubsidized
- B3e. FY 1996 Farm Operating Loans, unsubsidized

Risk category:

- B3e1. FY 1996 Farm Operating Loans, unsubsidized, Southwest Region
- B3e2. FY 1996 Farm Operating Loans, unsubsidized, Northeast Region

Case:

- B3ai Fiscal year 1992 unsubsidized loan to farmer A
- B3aii Fiscal year 1992 unsubsidized loan to farmer B

## Appendix B: Summary of Selected Reporting Requirements<sup>19</sup>

Principal Statements	Credit Reform Information Presented
Balance Sheet	Credit program receivables and related foreclosed property, net of related subsidy allowance  Liabilities for loan guarantees
Statement of Net Cost	Subsidy expense will be included as part of the gross program costs (present value of fees will be included as an offset in calculating subsidy expense rather than recording actual collection of fees as revenue)  Interest revenue and interest expense
Statement of Changes in Net Position	Appropriations received (subsidy) and appropriations used
Statement of Budgetary Resources	Appropriations received (subsidy), borrowing authority, offsetting collections (examples: Collection of fees, principal, interest, subsidy from program account) and obligations (subsidy to financing account, direct loans, interest supplements, default claims) and offsetting receipts (example: negative subsidy or downward reestimate received by general fund receipt account)
Statement of Financing	Reconcile net obligations to net cost using components from the Statements of Budgetary Resources, Changes in Net Position and Net Cost. Examples of reconciling items include upward/downward reestimates of subsidy expense, offsetting collections pertaining to fees and obligations

<sup>19</sup> Refer to FASAB Standards for a complete listing of accounting and reporting requirements. The requirements in the Standards may be supplemented by guidance provided in OMB Bulletin 01-09 and OMB Circular A-11.

Note Disclosures	Credit Reform Information Presented
<p>Direct Loans (and Defaulted Guaranteed Loans) by Program or Fund</p> <p>*Presentation by Program or Fund required by OMB Bulletin 01-09. Comparative data (current and prior years) for Note disclosures required by OMB Bulletin 01-09. SFFAS No. 18 requires the reconciliation of the subsidy cost allowance for direct loans and not defaulted guaranteed loans.</p>	<p>By program or fund:</p> <ul style="list-style-type: none"> <li>• Loans receivable gross,</li> <li>• Interest receivable,</li> <li>• Foreclosed property,</li> <li>• Allowance for subsidy cost (present value), and</li> <li>• Net value of assets related to direct loan programs (and loan guarantee programs)</li> </ul> <p>Total amount of loans disbursed for current and prior years</p> <p>Reconciliation between the beginning and ending balance of the subsidy cost allowance at the reporting entity level</p>
<p>Guaranteed Loans by Program or Fund</p> <p>*Presentation by Program or Fund required by OMB Bulletin 01-09. Comparative data (current and prior years) for Note disclosures required by OMB Bulletin 01-09.</p>	<p>By program or fund:</p> <ul style="list-style-type: none"> <li>• Present value of post-1991 liabilities for loan guarantees</li> <li>• Face value of guaranteed loans outstanding,</li> <li>• Amount of outstanding principal guaranteed</li> </ul> <p>Reconciliation between the beginning and ending balance of the loan guarantee liability at the reporting entity level</p>
<p>Both Direct Loans (and Defaulted Guaranteed Loans) and Guaranteed Loans by Program or Fund</p> <p>*Presentation by Program or Fund required by OMB Bulletin 01-09. Comparative data (current and prior years) for Note disclosures required by OMB Bulletin 01-09.</p>	<p>By program or fund:</p> <ul style="list-style-type: none"> <li>• Total subsidy expense, and its components</li> <li>• Total subsidy expense for modifications</li> <li>• Total subsidy expense for reestimates, and their components, for current and prior year (interest and technical)</li> <li>• Subsidy rates for the total subsidy cost, and its components, for the current year</li> <li>• Total administrative expense</li> <li>• Description of the characteristics of loan programs</li> <li>• Discussion of events and changes in economic conditions, other risk factors, legislation, credit policies and subsidy estimation methodologies and assumptions that have a significant and measurable effect on subsidy rates, subsidy expense and subsidy reestimates</li> <li>• Nature of the modification of direct loans or loan guarantees, discount rate used to calculate the modification expense, and basis for recognizing a gain or loss relating to the modification.</li> <li>• Restrictions on the use/disposal of foreclosed property, number of properties held and average holding period by type or category, number of properties for which foreclosure proceedings are in process and changes from prior year's accounting methods</li> </ul>