The Treatment of Nonperforming Loans in Macroeconomic Statistics

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EXECUTIVE SUMMARY

- The financial crises of the 1990s led to renewed interest in the question of how nonperforming loans (NPLs) should be accounted for in macroeconomic statistics. The *System of National Accounts 1993* (*1993 SNA),* in particular, does not reflect the existence of NPLs in either the flow accounts or the balance sheets. To redress this problem, the Intersecretariat Working Group on National Accounts asked the International Monetary Fund (IMF) to set up an electronic discussion group (EDG) to determine a suitable treatment for NPLs in the national accounts and other macroeconomic systems. This EDG began in July 2002 and was concluded at the end of July 2004, following a survey in which respondents were asked to choose between a number of options that had originally been proposed in one of the contributing papers.

- The current *1993 SNA* position is that loans are measured at nominal value irrespective of their quality, until such time as they are cancelled, written-off or written-down. If a debt is cancelled by mutual agreement this is a capital transfer from the creditor to the debtor. The writing off of debt is not a transaction and is recorded in the other changes of volume account of both parties. A loan rescheduled at a lower value is treated as a revaluation. In addition, the *1993 SNA* continues to record interest on nonperforming loans even when the prospects of this being received is remote. This is a consequence of the need to retain symmetry in the accounts, but does not reflect the true financial position of the transactors involved.

- Four specific **options** were proposed in the survey, each with different implications. Option 1 was for no change. Option 2 was to measure loans at nominal value and show interest arrears on NPLs and realizable (market equivalent) loan values as memorandum items. This maintains symmetry in the accounts and provides the otherwise lacking information on the true value of loans and interest accrued on NPLs. Option 3 was to measure loans at market equivalent value for creditors only, with memorandum items on nominal values and interest arrears on NPLs. There would no longer be symmetry between the accounts of debtors and creditors. Option 4 was to measure loans at market equivalent value for both creditors and debtors. The symmetry between assets and liabilities would be preserved under this option, but there would be practical difficulties in the collection of debtor data, and a loss of consistency with the other statistics manuals. Finally, respondents were given the option of making other proposals. These options promote the importance of memorandum data in the *1993 SNA*, and current proposals for the new balance of payments manual suggest a similar approach. All of the macroeconomic statistics manuals make use of memorandum data to some extent.

- The survey covered over 100 individuals and organizations and 35 responses were received. Options 1 and 3 were clearly rejected, showing that there was strong support for the principle of symmetry between debtors and creditors. There was a small, but not necessarily conclusive, margin of support for option 2 over option 4. A further analysis of the survey results which considered the weighting of individual and organization responses, and the responses of central banks versus those of statistical organizations showed that the same result stood.

- The **recommendation** is that Option 2 should be adopted. Mainly because it provides information on the true value of loan assets which is currently lacking. Option 4 does the same thing but the selected option has the advantage of not involving a fundamental change to the *1993 SNA* which might impede its implementation; it maintains consistency with the other manuals, and is more feasible at this time than option 4.

BACKGROUND

1. The financial crises that affected a number of countries in the 1990s rekindled interest in the question of how nonperforming loans (NPLs) should be accounted for in macroeconomic statistics. The original criteria used in the *1993 SNA* for the measurement of loans were based on a number of considerations such as the desirability of avoiding entries in the accounts for which there is no sound basis in observable transactions, the need for the accounts to facilitate comparisons between different economic agents and countries, the need for the valuation of loans to be consistent with the debtor's legal obligations, and the need for recommendations to be useful in measures of solvency. However, these criteria led to the situation where national accounts do not reflect the existence of NPLs in either the flow accounts or balance sheets.

2. In order to promote discussion on this issue, the IMF prepared a working paper[1] that was presented in draft form to the October 2001 meeting of the Intersecretariat Working Group on National Accounts (ISWGNA). The ISWGNA concurred with the view presented in the paper that macroeconomic statistics should better account for nonperforming loans, and asked the IMF to set up an electronic discussion group (EDG) with the objective of determining a suitable treatment for NPLs in the national accounts and the other major macroeconomic statistical systems.

OUTLINE OF THE ELECTRONIC DISCUSSION

3. The EDG[2] started in July 2002 with the specific purpose of determining if additional criteria should be applied to the treatment of NPLs and, if so, of ensuring that these are consistent with the other major macroeconomic statistical systems (balance of payments, government finance, and monetary and financial statistics). The moderator added three additional background papers[3] to the discussion and took a proactive role in seeking contributions to the discussion—via e-mail, the distribution of flyers at relevant meetings, and personal contacts—from persons and organizations expected to have an interest in the issue. Despite this, initial progress was slow, and only three contributions were received in the first six months. However, by October 2003, when a progress report was presented to a joint meeting of OECD National Accounts Experts and the Working Party on Financial Statistics, some 21 contributions had been received.

[1] IMF WP/01/209. *The Treatment of Nonperforming Loans in Macroeconomic Statistics*. Adriaan Bloem and Cornelis Gorter

[2] http://www.imf.org/external/np/sta/npl/eng/discuss/index.htm

[3] 1. *International Standards for Impairment and Provisions and their Implications for Financial Soundness Indicators*, Russell Krueger, IMF, July 2002; 2. *Treatment of Allowances for Loan Losses and Non-performing Loans*, Art Ridgeway, Statistics Canada, October 2001; 3. WP/00/195. *Loan Review, Provisioning and Macroeconomic Linkages.* Cortavarria, Dziobek, Kanaya and Song, IMF, December 2000

4. It was necessary at that time to further extend the deadline for the discussion as there had been a limited number of responses addressing the broader issues, such as those relating to the shortcomings of the *1993 SNA* with respect to NPLs. The response from national accountants had frequently been along the lines of: "This is not an issue which affects us as we don't produce balance sheets at this time." In order to focus the discussion on the issues at hand, a questionnaire was prepared, offering four options for the treatment of nonperforming loans. In July 2004, this was circulated around all OECD members and other interested parties, including all persons who had either made contributions to the EDG or expressed some interest in it. The results of this survey are presented later in this paper.

5. At the end of July 2004 when the preliminary EDG discussions concluded, some 30 contributions had been received together with the survey results.

THE CURRENT SNA POSITION ON LOAN VALUATION

6. In the *1993 SNA*, loans are measured at nominal value, which is the total amount outstanding (the amount required to pay off the loan in full, inclusive of accrued interest). This is the case whether loans are being measured as assets or liabilities. Changes are allowed only by cancellation, write-offs, or write-downs.

7. The cancellation of debt by mutual agreement between the creditor and the debtor is treated as a capital transfer. The writing off of debt—the recognition by a creditor that the financial claim can no longer be collected—is not a transaction and is recorded in the other changes in volume accounts of both parties. If loans are rescheduled, the new nominal value is the basis for valuation and the difference with the nominal value of the original loan is recorded as a holding gain or loss.

8. The *fundamental problem* is that the *1993 SNA* balance sheets record all loans at their full values irrespective of their quality, until the moment when bad loans are written off, and continues to accrue interest on such loans even when the chance of receiving that interest is remote. This is driven by the need to maintain symmetry in the accounts of both the creditor and debtor, but *does not reflect the true financial position of the transactors involved*.

PROPOSED ALTERNATIVE SOLUTIONS

9. The IMF Statistics Department set up an internal working group to consider the issue of loan valuation. The report of this group[4] contained four options which were used as the basis for the survey subsequently undertaken. Three of these options involve the provision of additional data based on whatever accounting standards may apply in the

[4] Posted on the NPL EDG, June 7, 2004

country in question. Where such data are used, it is important that they be supplemented with metadata outlining national practices. This is crucial given that the variation in practice is substantial. The revised International Accounting Standard 39,[5] which is being recommended for implementation in the European Union as of January 2005, allows for extended use of fair valuation[6] for both assets and liabilities, while retaining a range of other options.[7] It is not clear at this time how extensively fair valuation will be applied, but its possible use is assumed in presenting the following options. The alternative to fair value as a best estimate of the "market equivalent" value for loans is nominal value less expected losses[8]. In practice, it is expected that most countries will use a mix of the two approaches.

The Options and their Implications

Option 1: Leave the SNA as it is.

Implications of Option 1

10. If no action is taken, then the data on the financial position of the institutional units in the economy will continue to be misleading.

Option 2: Primary valuation should be nominal value.

11. Continue to measure loans in the SNA at nominal values but use memorandum items to show other pertinent information, such as:

- Interest arrears on NPLs[9, 10]

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[5] Financial Instruments: Recognition and Measurement.

[6] Fair value is defined as: *the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.*

[7] IAS 39 provides loan valuation principles that vary according to particular circumstances. The IAS will not apply to all companies and all countries. Under the IAS, loan liabilities will generally be valued at nominal values. Valuation of loan assets will depend on whether they are available-for-sale or not. If so, they will be reclassified as securities. In the case of loan assets that are not for sale (paras. 63–64), the valuation principles take into account specific and general information about impairment. However, the effect of changes in interest rates will not be taken into account for fixed-interest loans. In the case of loan assets that are available for sale, they should be measured at fair value, taking into account both impairment and changes in interest rates (para. 46).

[8] Note that this term could be quite different from fair value as the latter includes the effects of interest rate changes in addition to changes in credit risk.

[9] The *Monetary and Financial Statistics Manual* Table 7.1 page 86 includes this as a memorandum item, but leaves open the option of how such arrears are defined, in terms of the number of days overdue. This should follow national standards on NPL measurement.

- Realizable Loan Values

12. For IMF member country reporting of monetary and financial statistics, the new forms that are currently being introduced[11] will include memorandum items for, among other things, interest arrears on NPLs and expected loan losses.[12] These data will be published as memorandum items.[13] The term *realizable loan values* will be the country's best estimate according to its national accounting standards. It will be fair value, nominal values less expected loan losses, or some other estimate, depending on what is available.

Implications of Option 2

13. This proposes no changes to loan valuation in the main body of the *1993 SNA,* but provides additional information in the form of memorandum items. The objective of obtaining data on the realizable value of loans is to provide a best possible estimate of the true financial position as it is affected by loan valuation.

14. There are a number of points to note here. The definition of an NPL depends on national standards, and the 90-days overdue criterion is the one that is most widely used.[14] A definition of such loans, summarized from paragraph 4.84 of the IMF's *Compilation Guide on Financial Soundness Indicators* is:

> A loan is **nonperforming** when payments of interest and principal are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full.

15. While these criteria are used to classify a loan as nonperforming, this does not always mean that these overdue payments will necessarily lead to losses. If the loan in question is backed by adequate collateral, then losses might not occur. Also, interest on loans not defined as nonperforming might not be paid. Thus the interest accrued on nonperforming loans is a guide to the level of potentially "overstated" income of financial institutions, but not necessarily an exact measure.

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[10] Useful for analysis of "adjusted" income. As a practical issue it is noted that banks frequently do not record accrued interest on such loans on their balance sheets, and to the extent that national accountants derive finance industry estimates from the accounts of financial institutions, total interest will be inadvertently measured net of interest on NPLs rather than gross.

[11] These will be introduced in some countries as of early 2005.

[12] Banks normally make provisions against loans that they consider to be substandard. Such provisions could be based on national bank supervision guidelines, so may not be the same as expected loan losses.

[13] Refer Table 7.1, *Sectoral Balance Sheet for a Financial Corporations Subsector*, *Monetary and Financial Statistics Manual (MFSM)*, p. 86

[14] Cortavarria,et al. *Loan Review, Provisioning and Macroeconomic Linkages.* Page 11.

16. There is a difference in the treatment of loan write-offs and write-downs under the different options. A loan write-off—the legal de-recognition of a loan—is treated as a volume change in the *1993 SNA*, recorded in the other changes in volume of assets account (OCVA). A write-down of a loan is the unilateral recognition of reduced value by a creditor, but such actions are not recorded in the present SNA, except in the case where a loan is rescheduled at a reduced value by mutual agreement. In that case, a capital transfer is recorded from the creditor to the debtor matching the change in loan volume. Under option 2, a loan write-down would be shown as follows:

Example 1:

Loan Value	= 100
Expected loss	= 40

17. The main accounts record a loan with a nominal value of 100, and an expected loss of 40 is shown in the memorandum items. In the event that the expected loan loss increases to 100, this would exclusively be reflected as a change in the memorandum items. The loan still has a volume of 100 and retains its original value of 100. In the event that the creditor decides to write the loan off, the OCVA would show a change in volume of -100.

18. The problems caused by the occasional trading of loans still exist. If a functioning secondary market—as evidenced by market quotations and the existence of bid-offer spreads—exists, then loans are to be reclassified as securities[15] and are to be valued at market prices. Otherwise, the effects of valuing loans at nominal value and transactions at market values are demonstrated by the following example:

19. Supposing a loan with a nominal value of 100, is sold for 10. The seller will show an opening balance of 100, and a transaction—valued at the market price—of 10 which must be balanced by a downward revaluation of 90 to record a closing balance of zero for this item. The purchaser will record a transaction of 10 plus a positive revaluation of 90 to show a closing balance—at nominal value—of 100.

20. Thus, symmetry between the accounts of the creditor and the debtor is maintained.

21. Both the *Balance of Payments Manual,* fifth Edition[16] (*BPM5*) and the *1993 SNA*[17] discuss the example of loans sold at a discount on a one-off basis and recommend

[15] *External Debt Statistics: Guide for Compilers and Users* para. 3.29

[16] Para. 471

[17] Para. 14.51

that the creditor record the loan at transaction value,[18] and the debtor record the loan at nominal value. This creates the only example of an asymmetry in the accounts, which they recommend should be supplemented with additional data on nominal value for the creditor and market value for the debtor. Under option 2, both the debtor and the creditor record the loan at nominal value in the balance sheets, but the true financial position of the creditor will be reflected in the memorandum data.

Option 3: Primary valuation should be market equivalent value for creditors only, with no symmetry between debtor and creditor.

22. Measure loans as assets at market equivalent values (best estimates and might in practice be fair values or nominal values net of expected losses) and use memorandum items to show nominal values for loans[19] and interest arrears on NPLs. This is in line with the market value approach and recognizes that nominal values can be a poor substitute for market values. Nominal values would continue to be used for liabilities in the debtor accounts.

Implications of Option 3

23. With this option, the possibility of price changes for loans is recognized within the system, so the writing down of a loan is a price change. The writing off of a loan is a volume change, but only at the holding value which would likely be zero.

Example 2:

Loan Value	= 100
Expected loss	= 40

24. The main accounts start by showing a nominal value of 100, which reduces to a nominal value of 60, by way of revaluation when the expected loss of 40 is recognized. In the event that the expected loss goes to 100, the price drops further to zero and for any subsequent writing off of the loan, the OCVA shows a change in volume of zero. The loan still has a volume of 100, but with a price of zero.

25. The second implication of this option is that symmetry of assets and liabilities in the accounts is no longer preserved.

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[18] The transaction value is the market value at the time of the transaction; at later times it becomes increasingly out-of-date and could be better described as historic cost. (*BPM5* para. 471 is misleading in that it describes a transaction value maintained indefinitely as a "market price." *1993 SNA* para. 14.51 has similar references.)

[19] It may also be useful to include nominal values for bonds and securities.

Option 4: Primary valuation should be market equivalent value, but retain symmetry between debtor and creditor.

26. Measure loans at market equivalent values (best estimates and might in practice be fair values or nominal values net of expected losses) for both assets and liabilities, and use memorandum items to show nominal values for loans and interest arrears on NPLs.

27. Conceptually, measuring debtor liabilities at market equivalent values is possible, because bank data are likely to be one of the main sources when compiling accounts for other sectors, but in practice there will be difficulties. For example, in the case of liabilities to nonresident creditors, the data needed to make adjustments to nominal values may be unavailable from the creditor and not known to the debtor.

Implications of Option 4

28. This option is the same as option three, but preserves the symmetry of assets and liabilities in the system. It is likely that there would be practical difficulties obtaining the data necessary for its implementation.

THE USE OF MEMORANDUM ITEMS IN THE MANUALS

29. Two of the above options advocate the use of memorandum items to supplement data in the main accounts. These items are to be treated as an integral and necessary part of the system rather than as optional extras. This approach has already been used in other manuals.

30. The *MFSM* adds an extensive list of memorandum items to Table 7.1, Sectoral Balance Sheet for a Financial Corporations Subsector

31. The *Government Finance Statistics Manual* 2001 (*GFSM 2001*) recommends a variety of memorandum items[20] and includes a comment to the effect that estimates of total debt and the most important categories of debt be presented in both nominal and current market values. In addition, Appendix 2.13. says that "...where there is market evidence of lower (loan) values, this should be in a memorandum."

32. The *1993 SNA* does not use memorandum items extensively, but it does say that loans traded at a discount should be valued at the "...secondary market quotations..." and that "...creditors should provide supplementary data on nominal values..."[22]. *BPM5*[23] has a similar comment and makes a number of other references to memorandum items.

[20] Para. 7.141-149

[22] Para. 14.51

[23] Para. 471

33. The *Annotated Outline for the Revision of BPM5* places more weight on memorandum items than previously, distinguishing[24] between: (a) standard components and memorandum items that are part of the standard components; and (b) supplementary items that are raised as options.

34. Thus, all manuals make use of memorandum items to some extent.

THE SURVEY RESULTS

35. The survey (refer to Appendix III for the questionnaire) was sent to 110 potential respondents with 35 responses being received. In summary, the five choices offered were:

- **Option 1:** No change
- **Option 2:** Measure loans at nominal value and show interest arrears on NPLs and realizable (market equivalent) loan values as memorandum items.
- **Option 3:** Measure loans at market equivalent value for creditors only. No longer symmetry between the accounts of debtors and creditors.
- **Option 4:** Measure loans at market equivalent value for both creditors and debtors. N*one of the above.*

36. Respondents were given an opportunity to add comments supporting their choice. The results are tabulated below.

NPL Survey Results

Type	Option 1	Option 2	Option 3	Option 4	None of these
Individuals	0	2	1	3	0
Organizations	2	11.5	2.5	7	1
Total	2	13.5	3.5	10	1

Note: Some countries gave two responses, one from the Statistics Department and one from the Central Bank. In such cases, each was given half a vote, as other countries gave combined responses. Hence there are 30 full votes from 35 responses.

37. Allowing equal weight for each response, it is quite clear that option 1 has been rejected, so there is a very strong push for a change in the *1993 SNA* treatment of loans. One respondent did not like any of the options because in his/her country, neither memorandum data nor gross loan figures were available.[25]

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[24] Para. 1.22

[25] It was not clear whether this was a consequence of how the data are collected or whether financial institutions did not know this information. This did not seem to be a widespread problem.

38. Option 3 was also clearly rejected, so the indications were that respondents preferred to retain the symmetry in the accounts.

39. On balance, there was a slight preference for Option 2 over Option 4, but given the sample methodology this cannot be taken as conclusive.

40. The first issue in evaluating these results is: How should individual responses be weighted against the responses of organizations that represent a much greater number of persons? In the event, the pattern of responses for individuals was similar to that of organizations, so no great bias was introduced by giving them an equal weight. In fact, the final result would be more conclusive if the vote of individuals was given a lesser weight.

41. The second issue is: Did central banks give significantly different responses than statistical organizations?

NPL Survey Results					
Type	Option 1	Option 2	Option 3	Option 4	None of these
Central Banks	1	6.5	0	4	0
Other Orgs	1	5	2.5	3	1
Total	2	11.5	2.5	7	1

Again the results show similar patterns for both central banks and other organizations, so the results are still the same with Options 1 and 3 being rejected and Option 2 being preferred over Option 4.

RECOMMENDATION

- It is **recommended** that Option 2 be adopted.

- The survey results are not fully decisive regarding the choice between Options 2 and 4, but the moderator considers that a number of points favor the selection of Option 2. The first and most important one is that the memorandum data provide the information on the true value of loan assets which is lacking in the current *1993 SNA* approach. In addition, it provides information on interest accrued on NPLs, which is useful for analytical purposes and for reconciling bank accounts with the national accounts. Option 4 has the same benefits but, in addition, Option 2:

  (a) *Does not involve a fundamental change to the* SNA *that might impede the implementation process*. The data to be provided are in addition to that provided at present.

(b) *Maintains the current consistency with the other statistical manuals.* However, it should be noted that although the manuals are generally consistent with each other, there are considerable differences in the use of terminology which needs to be addressed when revising the *1993 SNA* or any of the other manuals. Furthermore, the *1993 SNA* uses terminology with respect to measuring loans and interest rather loosely. These issues are elaborated in Appendix I.

(c) *Is more feasible than option 4.* It is important not to confuse the underlying principles with the feasibility of their implementation, but the data required for option 2 will become available[27] as the requirements of the *MFSM*—referred to on page 6—are implemented. Option 4 would be difficult to implement in a practical sense because of the difficulty in estimating the market value of liabilities. While it might be possible to estimate these from asset data for national estimates—BOP estimates would be more problematic—such estimates would not be independent of asset data so the symmetry in the accounts would be artificial and without the usefulness of independent data for cross-checking purposes.

42. It should be noted, however, that option 4 does have the advantage of being consistent with the *1993 SNA* principle of market valuation and this is a point that supporters of this option have emphasized. Nonetheless, at this time, the discussion group has chosen option 2, reflecting respondents' preferences for the advantages of symmetry and consistency within the accounts.

[27] For the financial sector.

A Comparison of Terminology in the Manuals

[*These comments should be taken account of when the 1993 SNA or any of the other manuals are revised.*]

The statistics manuals generally indicate that they follow the principles of market valuation, but then there is often some ambiguity[28] about whether nominal valuation is preferred,[29] or whether it is just the best data that can be obtained on a consistent basis.

The standard **loan valuation principle** used in the manuals is that loans should be recorded at the total amount outstanding, or the amount required to pay off the loan in full.[30]

This principle is followed by the *Monetary and Financial Statistics Manual (MFSM),*[31] *Balance of Payments Manual* fifth edition *(BPM5),*[32] *External Debt Statistics: Guide for Compilers and Users (the ED Guide),*[33] *System of National Accounts 1993 (1993 SNA),*[34] *Government Financial Statistics Manual 2001 (GFSM 2001),*[35] and the *European System of National and Regional Accounts (ESA 95).*[36] On balance, the most common phrase used to describe the above principle is *nominal value*, but there is some variation in the use of this term. In summary:

Manual	Term Used
The *ED Guide*	Nominal value
GFSM 2001	Nominal value
MFSM	Book value
1993 SNA	Principal outstanding

[28] The ECB has suggested that the BPM5 recommends fair valuation for loans.

[29] *BPM5*, para 471 says this is "...an acceptable proxy for market value."

[30] Excluding early repayment penalties, if any.

[31] Paras 205–206. *Draft MFS Compilation Guide* Para 121.

[32] Para. 471.

[33] Para. 2.35

[34] Para. 14.51

[35] Para. 7.111

[36] Para. 7.51

BPM5	Nominal value
ESA 95	Principal (amount)

The differences between the manuals arise more from variations in the use of terminology rather than variations in underlying principles. Whenever terms such as *nominal, accrued interest, principal,* and the like are used, clarification is required as there are differences in their usage across the manuals.

The *ED Guide* uses the term *nominal value* and defines this[37] as "...the amount that at any moment in time the debtor owes the creditor ... (it) reflects the value of the (loan) at creation, and any subsequent economic flows, such as transactions (for example, repayments of principal), valuation changes[38] ... and other changes." This approach is backward-looking referring to the history of the loan. It also uses a forward-looking approach:[39] "...nominal value ... can be calculated by discounting future interest and principal payments at the existing contractual interest rate(s)..." Both approaches are conceptually identical.[40]

This provides a useful yardstick against which to compare the other definitions. The *nominal value*[41] includes all *interest accrued but not yet due for payment*, an item which causes some of the variation in the definitions used in the international statistics manuals. A second point of variation is in the use of the term *principal*. The *ED Guide* says:[42] "...interest can, and usually does, accrue on the principal amount, increasing its value." The essential point is that accrued interest becomes included in the term *principal*, and it is only by convention the subsequent periodic payments of accrued interest are called *interest* payments.[43]

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[37] Appendix III, page 262.

[38] The definition covers the general case of debt instruments. For non-marketed loans, valuation changes would arise only in the case of exchange rate changes affecting foreign currency loans.

[39] Appendix III, page 262 and para. 2.32

[40] In fact it is common banking practice to prorate accrued interest between payment periods rather than estimate on a compounding basis. Hence, in practice, there will be some variation between the two calculation methods, and they will only be exactly equal on days on which payments fall due, when the accrued interest equals zero.

[41] Nominal value can be understood to include interest and principal arrears in the underlying instrument if arrears are not classified as a separate instrument. In the *ED Guide* a new instrument is created when arrears arise. (para. 2.29)

[42] Appendix III page 265.

[43] Appendix III page 259 and para. 2.5

The ***GFSM 2001*** also adopts the above *ED Guide* definition of *nominal value*[44] and also the idea that *accrued but unpaid interest*[45] should be included in the principal of the underlying asset.[46] It also follows the convention that reductions of interest incurred but not paid are "commonly referred to" as interest payments.

Both the *GFSM 2001* and the *ED Guide* recognize that interest accruing on loans may follow national practices and be classified under *accounts payable.* This, however, is an exception based on practicality, and the accrued interest should be included in the nominal value of the loan, if possible.

While these two manuals are very specific about the definition of the term *principal*, it is used in a variety of ways in the other manuals, which can cause confusion. Thus, there is a recent trend to avoid using the term.

The ***MFSM*** defines the value of an outstanding loan[47] as *the outstanding principal amount*[48] *plus any accrued interest* and describes this as the *book value*. This is identical to the term *nominal value* as used above, but incorporates a different definition of *principal.* The *Compilation Guide for Monetary and Financial Statistics*, which is currently under development, defines *book value* differently, dropping the use of *principal* in the definition and referring to the *nominal amounts of outstanding loans plus accrued interest,* where *accrued interest* specifically refers to interest earned but not yet due for payment. This use of terminology for *nominal value* is again at variance with the usage in the *ED Guide* and the *GFSM 2001*, but they are all using the same measure.

The ***1993 SNA*** contains a rather mixed definition. It says[49] that "...the (loan) values to be recorded in the balance sheets ... are the amounts of principal that the debtors are contractually required to pay the creditors when the loans mature." This definition seems to be derived from the more general definition of a financial claim[50] and is true only as long as the term *principal* includes all interest owed on the loan and if loan repayments consist of interest only. Otherwise, the amount of principal is reduced with each payment, and with a fully amortized loan the residual is zero.

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[44] Para. 3.76, footnote.

[45] This refers to all unpaid interest, whether in arrears or accrued but not due. (para. 3.49)

[46] Paras 6.40–41

[47] Para. 205

[48] Para. 238 points out that this will include any interest in arrears.

[49] Paras 13.72 and 14.51. The latter equates this to nominal value.

[50] Para. 10.4

The ***BPM5*** uses identical wording to the *1993 SNA*, so it has the same weaknesses. It corrects this deficiency in the *Annotated Outline for the Revision of BPM5 (Annotated Outline)* wherein it says:[51] "...the current (loan) valuation principle is nominal value (including accrued interest)..." the latter parenthetical term clears up possible uncertainty about whether accrued interest is included.

The ***ESA 95*** defines[52] the loan values to be recorded as "...the amounts of principal that the debtors are contractually obliged to repay the creditors, even in cases where the loan was traded at a discount or a premium." This definition is correct as long as the term *principal* follows the definition in the *ED Guide.*

In **summary**, each manual seems to be striving for the same idea, but expresses it using a variety of different terminology.

There are a number of **other issues and errors**. The *1993 SNA*[53] and *BPM5*[54] use the term ***face value***, in reference to bonds—but less commonly in reference to loans—as if it is synonymous with *nominal value.* These two terms are sometimes equal but not always. In the case of deep-discount and zero-coupon bonds, the *face value* includes interest costs that have not yet accrued, which is counter to the accrual principle, and would differ from the *nominal value* of such instruments. The *Annotated Outline* has corrected this error and no longer uses the term *face value*.

The term ***accrued interest*** is not defined consistently throughout the manuals. Those that use the term—including the *Compilation Guide on Financial Soundness Indicators*[55] (*FSI Guide*)—include both interest arrears and interest accrued but not due, with the exception of the *MFSM* which includes only the latter component.

The term interest is not always defined in a manner consistent with the extended definition of *principal.* The *ED Guide* says[56] that "For the use of *principal,* interest can, and usually does, accrue on the principal amount, resulting in an interest cost for the debtor..." This is true if interest accrues on a compounding basis, where interest accrues on previously accrued

[51] Para. 6.16

[52] Para. 7.51

[53] Para. 13.89

[54] Para. 471

[55] Para. 3.7

[56] Appendix III, Page 259

interest, but as noted in footnote 11, this does not always occur in practice. The *1993 SNA*[57] says "...interest may be defined as ... the amount that the debtor becomes liable to pay the creditor over a given period of time without reducing the amount of principal outstanding..." This is inconsistent with the extended definition of *principal* that it implies earlier in the same paragraph, as if accrued interest was part of *principal* then the payment of it would reduce such *principal*.

[57] Para. 7.93

A Summary of Contributions to the NPL EDG

The contributions summarized below are attributed to individuals unless it is clear they are representing their respective organizations.

- ***Broad issues:***

The *IMF (Statistics Department) Loan Valuation Working Group* prepared a report which looked in some detail at the consistency of the international statistics manuals—both in the underlying principles and the use of terminology—in the treatment of loans. It found that in general the principles were, with some small variations, the same. However, the use of terminology varied considerably and could cause considerable confusion for users. (refer to Appendix I above). The Working Group Report then presented a number of options which provide the basis for the EDG questionnaire (refer to the main body of the text and to Appendix III below).

This Working Group paper provoked a number of responses. *Kevin O'Connor* supported option 2, and pointed out that Government loans need to be considered as well as those by financial institutions. The June 2004 meeting of the *Balance of Payments Technical Expert Group* discussed this paper on a *preliminary* basis and supported option 2 as a transitional position on the way to option 4. *Francois Lequiller (OECD)* argued in favor of option 3 finding the arguments in favor of the option—reflecting the true financial position of the creditor—far more compelling than arguments against. He was not concerned with the loss of symmetry in the accounts, and also felt that users focus more on the core accounts than on memorandum items. *Chris Wright (Bank of England)* argued that option 2 should be adopted with a clear transition timetable towards option 4. He was happy with the idea that the market valuation principle of the *1993 SNA* could be relaxed when instruments are not traded, especially where there is little risk involved or the instruments are held to maturity because neither party has the right to do otherwise. He qualified this by pointing out that the test of tradability is rarely clear cut. Loan portfolios are often sold and balance sheet positions can be protected through the use derivatives, and this will be an increasing trend. Until fair valuation is fully adopted, however, some aspects of loan valuation will remain subjective and the fair valuation of loan liabilities remains contentious. Hence, he proposes a two-step approach. Option 2 now, with fair (or, alternatively, recoverable) value as memorandum item. With a move towards fair value in a parallel set of accounts within three years of fair value being adopted as a standard. He suggests that within five years the primary measurement should be switched to fair value.

Russell Krueger/Anna-Maria Valencia present a paper which discusses how the changes in IAS 39 might affect the national accounts. They conclude with two options for the balance sheet treatment of loan impairment, which are the same as those for options 2 and 4 above, and discuss the possibility of distinguishing between changes in value due to general market conditions and those due to the deterioration in the condition of the debtor.

The moderator presented an interim report to the October 2003 Meeting of OECD National Accounts Experts and the Working Party on Financial Statistics, summarizing progress to date. At that time a greater number of responses were required covering the national accounting/BOP perspective and so the deadline for discussion was extended to allow for this. The subsequent discussion showed a need to reflect the true financial situation in the accounts, while other delegates were concerned about consistency and symmetry, and sending the wrong message by lowering bad debtor liabilities. It was decided to circulate a questionnaire to better determine the balance of opinion.

Ralph Kozlow: This contribution considers three issues: the treatment of loan principal, loan interest and operating surplus. It recommends that for creditors the IIP data on loan principal be shown at *nominal values* for individual countries and that a *global level adjustment* be made to reflect the difference between these nominal values and market values. This is because market values are difficult to estimate and any errors in the estimates would be offset at a global level, and also that disclosure of estimated market values at a bilateral level could affect financial markets. This is the approach that the U.S. actually uses. The IIP data for debtors should be presented in the same way but establishing market values in this case is even more difficult as debtors don't know the market value of their debt, whereas creditors have often established reserves on NPLs. It also notes that market valuation affects not just NPLs but also good loans whose value could be above face value if the debtor's credit worthiness has improved or market interest rates declined.

It recommends that interest not be recorded on loans that are in nonaccrual status and for those loans that are substantially in arrears—but not yet in nonaccrual status—interest should be recorded on a cash flow basis. Existing country practices should be used for determining nonaccrual status but these practices should be transparent and countries should provide metadata.

In general, losses are capital and do not affect operating surplus, but some proportion of these losses could be viewed as ordinary and necessary, i.e., "expected" and be deducted from output and hence value added.

Mandler and Finzi: This contribution looks at the relationship between financial intermediation services indirectly measured (FISIM) and NPLs, and how NPLs and interest arrears could be presented in the national accounts.

It asserts that if interest rates include a premium for possible defaults and FISIM is calculated without adjusting these rates, then output, value added, and operating surplus of financial institutions *will* be over valued. Implying that "expected" losses should be excluded from output.

It recommends that loans be measured at nominal value—as required—with additional data on NPLs and provisions for impairment, by sector for both debtor and creditor. Also interest arrears should be identified for each accrual interest flow.

Carmencita Santos: Asserts that the nonrecognition of loan loss provisions in the *1993 SNA* and the recording of these in other accounts payable in the *MFSM* (they are not liabilities!) has always created problems for bank supervisors who treat these as a deduction from gross loans. Assets and liabilities data compiled by research departments are always overstated compared with the figures used by supervision departments. Accounting practices (IAS 39 and Basel Sound Practices for Loan Accounting) require that impairment be recognized so why should the *1993 SNA* ignore it?

Derick Cullen: Contends that the *1993 SNA* does users a disservice just when they need clarity – in times of financial stress. The *1993 SNA* therefore needs to move towards fair value concepts for assets other than securities. Using nominal values in times when collateral values are deflating sends no formal signal of difficulties. Similarly, any recovery phase is difficult to discern under the *1993 SNA* accounting rules.

Phillip Turnbull: The definition of NPLs should follow banking supervision practice and use commercial accounting conventions for loans written off. The manuals should change loan valuation rules to reflect nonperformance, but use the memoranda approach in the meantime. "Expected" losses should be deducted from income, although interest should continue to accrue on impaired loans in general.

Isaac Svartman. Suggests that the *1993 SNA* standard towards provisioning is not useful in the current environment and should be revised to incorporate either the fair value or the provisioning approach. He prefers the provisioning approach to quantify impairment as it is less complicated than the fair value standard and is likely to give a better estimate particularly in emerging economies where loans are generally short term and market interest rates are not easily determinable. Specific loan loss provisions should be reported as a contra asset.

Olivier Frecaut: Provides support for the *1993 SNA* quadruple bookkeeping approach versus the double-entry system in supervisory accounting. The former emphasizes the fact that the losses incurred by the banking sector when loans are written off are not losses to the whole economy but are transfers to the corporate—or some other—sector. He makes particular reference to the conclusion of the Krueger paper: "*The differences* (between developing supervisory and accounting standards and the *1993 SNA*) *could provide the potential for fruitful cross-harmonization between the standards, involving* SNA *taking a more realistic stance regarding impairment and the accounting and supervisory standards being structured systematically to support statistical aggregations and comparisons between institutions and sectors"*.

Yanfei Ye (China): Discusses the treatment of NPLs in China and suggests that NPLs be split into two categories: "recurrent" caused by normal factors and "one-off" caused by external events. The *1993 SNA* should treat the first like a price change and the second as a volume change. He then offers arguments for and against allowing NPLs to affect the SNA production and income accounts and invites contributors to discuss the merits of his arguments.

Australian Bureau of Statistics: Offers the view that in order to answer the general question of loan valuation in the *1993 SNA*, we need to go back to the basic SNA principals of : market pricing, accrual recording, and symmetry between parties in any transaction. The current *1993 SNA* treatment of NPLs is not useful in times of financial crises and the market valuation principal should be applied to loans. It may be useful to add the level of contractual obligations in a memorandum—after all, in assessing credit risk, it is no great help to know that a country, say, has low liabilities because creditors have given up hope of getting their money back—but the market (or fair value) principal should prevail for both loan valuation and interest accrual. The latter being measured at market loan prices and market yields.

NPL Definition, provisioning and country practice:

Compilation Guide on Financial Soundness Indicators (*IMF*)

This is available at http://www.imf.org/external/np/sta/fsi/eng/guide/index.htm and its primary purpose is to provide guidance on concepts and definitions, and sources and techniques, for the compilation and dissemination of Financial Soundness Indicators (FSIs). These are indicators of the current financial health and soundness of the financial institutions in a country and of their corporate and household counterparts.

The *Guide* is useful for the NPL EDG as it provides a suggested classification of loans (and other assets) as nonperforming, and guidance on the treatment of loan loss provisions in the income and expense and balance sheet statements.

Johan van den Heever (South Africa): Suggests that NPLs should be those that are overdue by 3 or more months or where other information suggests an inability to repay. Balance sheet positions should indicate both gross loans and specific provisions against these loans. For income statement purposes accrued interest should be offset with an "interest income provision." Specific provisions against principal should also flow through the income statement and general provisions should be identified with capital and reserves.

Kadri Manasoo (Estonia): Discusses provisioning practices, indicating a preference for recognition of impairment through provisioning to indicate both gross and net positions.

Petra Davidova: Provides an outline of the rules for assessing receivables and creating provisions in the Czech Republic.

Classification	Provision		Criteria
Standard			
Watch	1%		
Substandard	20%	nonperforming	90-180 days overdue
Doubtful	50%	nonperforming	180-360 days overdue
Loss	100%	nonperforming	>360 day plus other.

Ludmila Mjagkiha: Latvia has a similar approach, although the substandard classification covers loans 31–90 days overdue and provisioning levels are higher. (10 percent, 30 percent, 60 percent, and 100 percent respectively).

Karmen Kuncich: Slovenia also uses a five group classification but with provisioning levels of 10 percent, 25 percent, 50 percent and 100 percent and the last three groups accrue income on a cash basis. However, it only refers to the last two categories as NPLs.

V. Subramanyam. Suggests that because of the wide variety of country practices in defining nonperforming assets, it is not advisable to prescribe a set of common definitions, but users should rely on country practice and associated documentation. He notes that adequate provisioning can be supported by tax policy relating to the deductibility of these provisions. As uncollected interest on NPLs is normally excluded from income, the policy on this issue should also be well documented, and the amount indicated as a memorandum item. Specific loan loss provisions should be reported as a contra asset.

A *response* to this from *Inwon Song* disagreed with the view of accepting country definitions saying that a common set of definitions would be very useful for cross-country comparability.

- ***Related issues:***

Hiroyasu Ando (Japan) raises the case of an issuer of bonds deferring interest and principal and, as a consequence, the bonds becoming nontradable. In practice the compilers of the IIP in Japan received data on these bonds in two forms: “internally assessed values” and “book value”. He is looking for suggestions from the group on how such bonds should best be valued.

The Survey Questionnaire

Loan Valuation in the *1993 SNA*

An Electronic Discussion Group (EDG)[58]was initiated in July 2002—at the request of the Intersecretariat Working Group on National Accounts—with the objective of determining a suitable treatment for nonperforming loans (NPLs) in the national accounts and the other major macroeconomic statistical systems. This discussion now needs to be finalized so the views of national accountants and others are being solicited by way of this questionnaire. Responses should be sent to the moderator of the EDG, rfreeman@imf.org before July 23, 2004.

The **basic problem** is that the *1993 SNA* balance sheets record all loans at their full value irrespective of their quality. The SNA ignores the information provided on provisions for bad loans by financial institutions. In addition, in the SNA, interest continues to accrue on nonperforming loans even when the chance of receiving that interest is remote.[59] The current SNA way of recording is driven by the wish to maintain the principle of symmetry between the accounts of the creditor and debtor, but it does not reflect the true financial position of the transactors involved, while this true financial position is better reflected in the balance sheet of financial institutions through the provisioning of bad loans, in application of the recommendations of financial supervision authorities.

Four options for the valuation of loans have been identified in a paper prepared by a Loan Valuation Working Group[60] instituted by the IMF. (Several other papers available on the EDG also discuss these issues). These options are listed below, with a brief discussion of the pros and cons of each option. Respondents are invited to select their preferred option, add comments, and if desired to add further options for consideration.

[58] Log on to http://www.imf.org/external/np/sta/npl/eng/discuss/index.htm for all background papers and discussion

[59] For a full discussion of the issues refer to IMF WP/01/209. The Treatment of Nonperforming Loans in Macroeconomic Statistics by Bloem and Gorter, a background paper on the above site.

[60] Posted on NPL EDG site, June 7, 2004

(Option 1): ***Leave the* SNA *as it is.***

For: No revision to the SNA required.

Against: This option overstates the value of loans that can be recovered and hence gives a misleading portrait of the financial position of transactors in the system.

(Option 2): ***Primary loan valuation should be nominal value.***

Continue to measure loans in the SNA *at nominal values but use* ***memorandum items*** *to show other pertinent information, such as:*

- Interest arrears on NPLs
- Realizable Loan Values

For: This option maintains the underlying SNA principle of symmetry between the accounts of debtors and creditors. It reflects the debtors' legal obligations in the main accounts and the true financial position of creditors by way of memorandum items. The required data should be readily available, as memorandum items on interest arrears and expected loan losses are included in the new monetary and financial statistics report forms. This would not involve a major revision of the SNA.

Against: The symmetry in the accounts is maintained only by departing from the general SNA principle of market valuation in the case of nonperforming loans. The inclusion of such data in memorandum items could make these less prominent than the primary nominal valuation, although it is intended under all options that the memorandum items become an integral part of the system.

(Option 3): ***Primary valuation should be market equivalent value for creditors only, with no symmetry between debtor and creditor.***

Measure loans as assets at market equivalent values (best estimates which might in practice be fair values or nominal values net of expected losses –provisions--) and use memorandum items to show nominal values for loans and interest arrears on NPLs. This is in line with the market value approach and recognizes that nominal values are a poor substitute for market values. Nominal values would continue to be used for liabilities in the debtor accounts.

For: This provides a true financial picture of the creditor's financial position in the primary accounts and the memorandum items. As for option 2, the data should be available. Partly in line with the SNA principle of market valuation in the way it measures loan assets, but loan liabilities are still at nominal values.

Against: The underlying SNA principle of symmetry between the accounts of debtors and creditors is no longer maintained in the main body of the accounts, although it is by way of the memorandum items, and these would be considered to an integral part of the system. This would involve a major revision of the SNA framework.

(Option 4): ***Primary valuation should be market equivalent value throughout (retaining symmetry between debtor and creditor).***

Measure loans at market equivalent values (best estimates and might in practice be fair values or nominal values net of expected losses) for both assets and liabilities, and use memorandum items to show nominal values for loans and interest arrears on NPLs.

For: This provides a true financial picture of the creditor's financial position in the primary accounts, plus it maintains the underlying SNA principle of symmetry between the accounts of debtors and creditors. Fully in line with the SNA principle of market valuation.

Against: The presentation of debtor liabilities at market value does not reflect the full legal liabilities of the debtor, but again, these are included in the memorandum items. In practice, measuring debtor liabilities at market equivalent values is possible, but difficult. As these values may not be known to debtors, it is probable that they would have to be estimated from creditor data.

APPENDIX III

QUESTIONNAIRE ON NON PERFORMING LOANS

Name of respondent:……………………………………..

Please indicate which of the above options you prefer:

Option 1 Option 2 Option 3 Option 4 None of the above

I prefer: …………………………………………………….

Comments:

Are there other options that you think should be considered?