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The Treatment of Nonperforming Loans in Macroeconomic Statistics

An Issue Paper Prepared for the December 2004
Meeting of the Advisory Expert Group on National Accounts

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Contents **Page**

Appendices

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 system. The EDG started its activities in July 2002 and was concluded at the end of July 2004.

- The origin of the problem is that the current *1993 SNA* records loans at nominal value irrespective of changes in their quality in terms of credit risk (the risk that a borrower fails to meet its obligations) and other changes in the market. In addition, the *1993 SNA* recommends that interest on NPLs continue to accrue, even if the contractual payments are not made. As a result, the accounts may provide a seriously overoptimistic view on the financial positions of holders of nonperforming loans.

- The EDG received in total some 30 contributions; it also canvassed views using a structured questionnaire that it sent to over 100 individuals and organizations. Various considerations were brought in the discussion such as analytical appropriateness, consistency with the recording principles in the *1993 SNA* regarding valuation and symmetry, consistency with legal and business accounting standards, and data availability.

- The questionnaire asked respondents for their preferred solution out of four options with respondents also given the opportunity to make other proposals. Option 1 was to make no changes to the *1993 SNA*. Option 2 was to continue measuring loans at nominal value in the main accounts, but provide supplementary information on their market-equivalent values and on interest arrears. Option 3 was to record loans at market-equivalent value in the creditors' accounts only, with memorandum items on nominal values and interest arrears. Option 4 was to measure loans at market-equivalent value for both creditors and debtors, with memorandum items to show nominal values and interest arrears.

- The various contributions as well as the 37 responses to the questionnaire were nearly unanimously in favor of remedying current *SNA* guidelines, unambiguously rejecting Option 1. Similarly, the idea of having asymmetrical creditor and debtor accounts was rejected (Option 3). There was a small, although not necessarily conclusive, margin of support for having market-equivalent values as memorandum items (Option 2) rather than in the accounts (Option 4).

- Considering that the statistical information provided under Options 2 and 4 is identical, the EDG moderator concluded that there was broad consensus that the concept of market value could also apply to loans. However, a large section of the respondents hesitated to embrace market-equivalent valuation in the core accounts at this point in time, mostly because of doubts about the robustness and comparability of the data.

- Given these conclusions, **the EDG recommends that:**

  - The *1993 SNA Rev 1* continue to measure loans at nominal value in the accounts;

  - The updated *1993 SNA* show as memorandum items (i) the market-equivalent value of loans and (ii) interest arrears on loans;

  - In order for this solution to work, the memorandum items should be regarded as mandatory;

  - After experience has been gained in presenting the market-equivalent value of loans as memorandum items, and after stabilization of the accounting standards' position on fair valuation, a review should determine the appropriateness of recording loans at market value in the accounts proper.

  - Attention be given to the further harmonization of the terminology and definitions used by the international macroeconomic statistics manuals concerning loans and interest accrual.

QUESTION TO THE ADVISORY EXPERT GROUP ON NATIONAL ACCOUNTS (AEG):

- Does the AEG support each of the recommendations of the EDG?

I. Background

1. The financial crises that affected a number of countries in the 1990s rekindled interest in the question of how nonperforming loans (NPLs), that is, loans on which debtors have failed to make contractual payments for a predetermined time, should be accounted for in macroeconomic statistics. The criteria used in the *1993 SNA* for the measurement of loans were based on a number of considerations such as (i) the desirability of avoiding entries in the accounts for which there is no sound basis in observable transactions, (ii) the need for the accounts to facilitate comparisons between different economic agents and countries, and (iii) the need for the valuation of loans to be consistent with the debtor's legal obligations. 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 NPLs 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.

II. 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, how the proposed criteria would relate to or affect 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] See 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 only a limited number of responses had addressed 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 that 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 loans, including NPLs, and also seeking other opinions. In July 2004, the questionnaire was sent to representatives of statistical departments of all OECD members and to other interested parties, including all persons who had either made contributions to the EDG or expressed some interest in it.

5. In total, the 30 contributions were posted on the EDG's website; the number of replies received on the questionnaire was 37.

III. 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). The valuation principle is the same whether loans are being measured as assets or liabilities. Apart from the transactions related to the fulfillment of the contractual servicing of the loans, changes are allowed only by cancellation, write-off, or rescheduling.

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 considered 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 nominal values irrespective of their quality, including changes in the credit risk of the debtors. So, writedowns—the making of allowances with respect of bad loans—are not reflected at all in the national accounts. In addition, the *1993 SNA* continues to record the accrual of interest on loans even in cases when it is not ultimately received. This method of recording reflects the legal view on the amounts debtors owe creditors. However, it *does not reflect the true financial position of the transactors involved*. For NPLs, the current guidelines paint a too rosy picture of the value of loans in creditors' balance sheets and of their income. In addition, nominal valuation for loans represents an important departure from the principle of valuing assets at current market prices in the system.

IV. CONSIDERATIONS RAISED BY THE VARIOUS CONTRIBUTIONS

9. The contributions addressed a number of considerations that have different weights under the various valuation possibilities: nominal value, nominal value adjusted for credit risk, market-equivalent value, and recording of dual valuations. The advantages and disadvantages of each of these alternatives are summarized below on the basis of considerations such as analytical appropriateness, consistency with the recording principles in the *1993 SNA* regarding valuation and symmetry, consistency with legal and business accounting standards, and data availability.

A. Nominal valuation

10. In the current system, loans are a category of financial instruments for which no established market exists by definition.[4] In general, the parties to the original agreement remain the same until the loan expires and there are few, if any, opportunities of realizing holding gains or losses generated by changing market conditions. The nominal valuation of loans, therefore, is unquestionably of central importance for both creditors and debtors. In addition, nominal valuation is the most appropriate measure of the legal obligation the debtor has towards the creditor at any point in time. A creditor will insist that payments be made according to this obligation, whatever doubts exist about the debtor's ability to service the loan.

11. A major problem with nominal valuation from an analytical point of view, however, is that it does not reflect impairment of, or nonperformance on loans. There is a difference between nonperformance and impairment. Impairment refers to the risk of failure of debtors to meet their obligations. Circumstances may cast doubt on the ability of a debtor to make future contractual payments (in other words, the loan is impaired), even if all payments have been made punctually up till the present. Nonperformance is the manifestation of such failure.[5] As a result, seriously misleading signals may be given about the value of creditors' loan holdings and the interest these holdings generate. Such was witnessed, for instance, during the financial crises of the 1990s.

12. On a more general level, nominal valuation for loans constitutes a major exception to the general principle in the *1993 SNA* of recording all transactions in, and stock levels of, assets and liabilities at their current market values. Measuring the holdings of loans at nominal value may impede making comparisons with holdings of other types of assets or liabilities.

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[4] If a regular market exist for a particular type of loans, the *1993 SNA* classifies these loans as securities.

[5] A loan classified as nonperforming does not necessarily lead to losses. If there is adequate collateral, losses might not occur. Conversely, loans may be lost even though they were never classified as nonperforming.

13. Accounting standards such as the International Accounting Standards (IASs) of the International Accounting Standards Board (IASB) and the International Public Sector Accounting Standards (IPSAS) of the Public Sector Committee (PSC) of the International Federation of Accountants (IFAC) generally measure loan *liabilities* at nominal values. However, these standards do not recommend nominal valuation for *holdings* of loans in case of impairment. Then, subject to various considerations, either a valuation net of an allowance for impairment should be carried or fair valuation should be followed. Fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction. [6]

14. Obtaining data on loans at nominal values should be relatively easy. Both creditors and debtors should be able to provide such information.[7] This facilitates maintaining the *SNA*'s general principle of symmetry with respect to loans. The symmetry principle says that each flow and stock is to be reflected, at the same value and at the same time, in the accounts of parties involved in mutual transactions and financial relationships.

B. Nominal valuation adjusted for credit risk

15. The obvious way to address the inability of nominal valuation to reflect the effects of debt impairment would be to adjust nominal values for credit risk. The principle is simple: the expected loss on a bad debt would be subtracted from its nominal value to arrive at the adjusted value. Any change in the expected loss would be treated as a holding loss or gain. In parallel, the accrual of interest should be suspended in the income accounts for failure to make contractual payments during a predefined period of time.

16. For assessing loan holdings, credit risk-adjusted nominal values provide a more accurate measure of value than nominal values. This also is the reason why accounting standards prescribe that creditors should make allowances for bad loans. The catch is that the available information may not be robust enough for incorporation in statistics. Standards may differ among countries and among creditors on when exactly a loan should be considered impaired. Furthermore, the likely source for information on the impairment of loans—estimates made by creditors—may be subject to exaggerated prudence, tax, and other considerations that do not conform to statistical requirements.

17. Adjusted nominal values are not consistent with the *1993 SNA* concept of market valuation because many other risk categories, including interest rate risk, are not taken into account. If, following accounting standards, adjusted nominal values were to be applied to assets but not to liabilities, the *1993 SNA* general principle of symmetry would be violated. There would also be a tendency to understate the net worth of those units that carry loans both as assets and as liabilities. However, statisticians may be able to make estimates for liabilities at adjusted nominal values.

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[6] This is the definition given in the revised IAS 39, Financial Instruments: Recognition and Measurement.

[7] There are indications, however, that in practice many creditors record nominal values less allowances.

18. Obtaining data on loan allowances from creditors should not be problematic. Accounting standards require creditors to make such allowances. However, it is obvious from the above that the collected data will need close scrutiny on whether they meet the required statistical standards. In addition, the process of applying creditors' estimates of probable loan losses to the accounts of debtors might be a formidable exercise, depending on bank reporting requirements. Problems are in particular expected for cross-border loans.

19. It is worthwhile here to cite from a contribution that Kevin O'Connor made to the EDG. He explains,

> "During the SNA revision process (discussed in 1988 in Washington, 1990 in Washington, and 1991 in Harare) we opted for nominal (or principal) value, because there was no clear, unambiguous, and internationally comparable way of reducing the nominal value of nonperforming loans, except where the loans were de facto traded."

However, he continues,

> "That is still the case today, but there has been much more work done (Basel Committee) on defining nonperforming loans and standardizing treatments. Therefore, there is more basis for determining comparable memorandum items that the analyst (but not the compiler) can use to reduce nominal value."

20. A boiled-down version of the adjusted nominal value option would be to apply it only to the overdue payments on all loans classified as nonperforming. A loan is nonperforming when the debtor has been in default of making its contractual payments during a predefined period of time.

21. Not all countries use the same definition for NPLs, and there may even be different definitions in use within a single country depending on the sector involved (financial institutions, quoted corporations, small enterprises, government entities, and so forth). Still, a tendency towards convergence is noted and these days the 90-days overdue criterion is most widely used.[8] At the international level, the definition provided by paragraph 4.84 of the IMF's *Compilation Guide on Financial Soundness Indicators* should be considered, which reads, summarized, as follows:

> 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.

22. Even taking these limitations into account, for analytical purposes information on NPLs would be a valuable addition to the current *SNA* recording of loans.

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[8] Cortavarria,et al. Page 11.

C. Market valuation

23. By definition in the national accounts, no established markets exist for loans. Thus, observable prices are not available and one has to go by the best estimate of what price the loan would fetch if it were bought on the market. Market valuation should take into account all circumstances that likely influence the price of loans including individual loan characteristics, such as changes in the creditworthiness of the debtor, and general conditions, such as interest rate movements.

24. Whether, from an analytical point of view, market valuation should be preferred to nominal valuation adjusted for credit risk may depend on country-specific circumstances. If financial markets are highly developed and creditors can easily sell their loan portfolios if they wish to do so, market valuation may well be preferred. If, on the other hand, economic agents normally intend to maintain the creditor-debtor relationship until the end of the agreed terms, the effect of fluctuating interest rates on the market value of loans may be regarded as obscuring rather than helping economic analysis. We are balancing on the edge of the sword here, because if a functioning secondary market exists for a particular class of loans, the *SNA* classifies these loans as securities.

25. Market valuation of loans would bring this category of financial assets in line with the general *SNA* rule on valuation. It would thus facilitate comparing loans with other assets and generate meaningful aggregates. To the extent that compiling statisticians check and reconcile the consistency between the creditors' and debtors' accounts, market valuation can be applied symmetrically on loans, in accordance with the general *SNA* principle.

26. As indicated earlier, accounting standards tend to prefer nominal values for loans if they are a liability. Loans that are assets are recorded at credit risk adjusted nominal values or fair values, depending on a number of conditions. Fair value would be applied when loan assets are available for sale.

27. Obtaining the market values is relatively easy in those cases where creditors apply fair valuation. In other cases, statisticians will have to make their own estimates using all information they can obtain. This will not only be a tedious work, but the estimates may also be not particularly accurate with respect to the individual characteristics of the loan, including the creditor risk on NPLs.

D. Dual recording of valuation

28. Dual recording could be achieved by way of the introduction of memorandum items to the valuation method used in the accounts. For this solution to work, it should be mandatory that countries report on the memorandum items. Up until now, the *SNA* uses memorandum items sparingly, and there always is the danger that the information provided by these items is regarded as less important. However, memorandum items already exist or are planned in other statistical manuals, part of which make provision mandatory. Examples include *MFSM*, the *Government Finance Statistics Manual 2001*and the *Annotated Outline for the Revision of BPM5*.

29. A pragmatic approach in selecting the values was suggested by an internal working group of the IMF Statistics Department. Nominal valuation is readily available and provides important data for certain types of economic analysis. At the same time, such valuation is clearly insufficient in the case of NPLs, and is also an anomaly in view of the SNA's general principle of recording current market values. In addition to nominal values, source information is likely to generate a mix of adjusted nominal values and fair values. Indeed, this may reflect the best information from an analytical point of view, because the specific circumstances regarding individual loans are given due weight. This pragmatic approach goes under the heading of "realizable value" or "market-equivalent value" (keeping in mind that it does not necessarily equal fair value, but rather the kind of market value that is relevant for the individual loan).

30. The complex nature of this concept of market-equivalent value would require that metadata be prepared to assist users in the correct interpretation of the statistics. These would also be needed in view of possible variations in national definitions.

31. The working group, noting that information will become available on interest arrears experienced by the banking sector,[9] considered that it might be worthwhile to add such information to the accounts in the form of memorandum items.

32. The group suggested various recording options that were developed into a questionnaire which was used to canvas the opinions of users and compilers of the statistics. These options are described in the next section, together with the responses received.

[9] The new forms for IMF member country reporting of monetary and financial statistics that are currently being introduced will ask for interest arrears on NPLs. These forms will be introduced in some countries as of early 2005.

V. THE CANVAS

A. Suggested ways of recording

33. The report[10] of the internal IMF group contained four alternative approaches, which were used as the basis for a canvas undertaken in July 2004. The following summarizes the various options suggested and their main implications.

Option 1: Leave the SNA as it is.

34. Under Option 1, the data on the financial position of the institutional units in the economy will continue to be misleading with respect to NPLs.

Option 2: Continue to measure loans at nominal value in the accounts, but include mandatory memorandum items on their market-equivalent value and on NPL interest arrears.

35. This proposes no changes to the way loans are valued in the main body of the *SNA:* both the debtor and the creditor record the loan at nominal value in their balance sheets. However, the best estimate of the financial position of the creditor will be reflected in a memorandum item. In addition, a memorandum item on interest arrears will provide a rough indication of how much the creditors' receipts might be overstated in the accounts proper.

Option 3: Record loans at market-equivalent value in the creditors' accounts and at nominal value in the debtors' accounts. Include mandatory memorandum items showing the nominal value of loans and interest arrears on NPLs.

36. Under Option 3, the creditors' accounts are, to the extent possible, in line with the *1993 SNA*'s general principle of recording assets at market values. The debtors' accounts show their legal obligations. The symmetry of assets and liabilities in the accounts is no longer preserved. The memorandum items provide additional information for economic and financial analysis.

Option 4: Measure loans at market-equivalent value for both creditors and debtors, with memorandum items to show their nominal value and interest arrears.

37. This option is fully in line with the *SNA*'s general principle of market valuation. It also preserves the symmetry of assets and liabilities in the system. The memorandum items allow further analysis.

None of the above. (Please specify.)

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[10] Posted on the NPL EDG, June 7, 2004.

B. The results of the canvas

38. The moderator of the EDG canvassed 110 potentially interested parties[11] on their preferences regarding the four options listed above. The questionnaire used (refer to Appendix III) also allowed respondents to add comments and to suggest other options for consideration. In total 37 responses were received.[12] The results are tabulated below.

Text table 1. NPL Canvas results: all responses

Type	Option 1	Option 2	Option 3	Option 4	None of these
Individuals	0	2	1	3	0
Organizations	2	11	2.5	8	2.5
Total	2	13	3.5	11	2.5

39. The moderator infers the following from these outcomes:

- It is quite clear that Option 1 was rejected, indicating a very strong push for amending the *1993 SNA* treatment of loans.
- Option 3 was also clearly rejected, so the indications were that respondents preferred to retain the symmetry in the accounts.
- On balance, there was a slight preference for Option 2 over Option 4, but given the informal character of the canvas, this cannot be taken as conclusive.
- The results show that the pattern of responses for individuals was similar to that of organizations, so no great bias was introduced by giving each response an equal weight.

[11] The questionnaire was sent to representatives of statistical departments of all OECD members and to other interested agencies or persons, including all those who had either made contributions to the EDG or expressed some interest in it.

[12] Some countries gave two responses, one from the Statistics Department and one from the Central Bank. In such cases, the response was apportioned. Hence there are 32 “full responses” from a total of 37.

40. To analyze whether central banks gave significantly different responses than national statistical offices, the following table was constructed.

Text table 2. NPL Canvas results: responses from central banks and other organizations					
Type	Option 1	Option 2	Option 3	Option 4	None of these
Central Banks	1	6	0	4	0
Other Orgs	1	5	2.5	4	2.5
Total	2	11	2.5	8	2.5

Again, the results show quite 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.

BOPTEG results

41. It is interesting to compare the outcomes of the canvas organized by the EDG moderator with the replies that members of the Balance of Payments Technical Expert Group (BOPTEG) gave to the same questionnaire. The BOPTEG provides advice to the IMF Balance of Payments Committee on issues related to the revision of *BPM5*. The Group comprises representatives of 13 selected countries and four international organizations.

42. BOPTEG endorsed Option 2, i.e., the continued use of nominal value as the standard basis, but with the addition of a requirement to show memorandum items with measures of market-equivalent values of loans. Of those BOPTEG members who expressed opinions, 13 supported Option 2. Two supported Option 4, i.e., adopting market-equivalent values for both debtors and creditors. Options 1 and 3 received no support.

43. Several of the supporters in BOPTEG of Option 2 mentioned that an important factor was that implementation of market-equivalent values still had practical problems, including data availability, inconsistency of methods of calculating such values, and uncertainty about the scope of adoption of IAS39. Moreover, several members urged that a position be adopted that left the way open for statistical methodology to move to Option 4, on an early basis, within the expected life of the forthcoming manual. Such a planned transition could be recognized in the manual, with either an explicit timetable or a statement of intention to review.

C. Evaluation by the EDG moderator

44. The EDG moderator concludes from the canvas results that a broad consensus exists that information on loans should be given at both nominal value and market-equivalent value. Regarding the question which of the two should be shown in the accounts, the EDG canvas shows a slight preference for nominal value; the BOPTEG canvas a clear preference for nominal value. As was the case with the BOPTEG canvas, several respondents to the EDG canvas indicated that a review would be appropriate when more experience has been gained

on the collection of data at market-equivalent values. The fact that accounting standards on the issue may still change supports this suggestion.

VI. Recommendations

The EDG recommends that:

- The *1993 SNA Rev 1* continue to measure loans at nominal value in the accounts;
- The updated *1993 SNA* show as memorandum items (i) the market-equivalent value of loans and (ii) interest arrears on loans;
- In order for this solution to work, the memorandum items should be regarded as mandatory;
- After experience has been gained in presenting the market-equivalent value of loans as memorandum items, and after stabilization of the accounting standards' position on fair valuation, a review should determine the appropriateness of recording loans at market value in the accounts proper.
- Attention be given to the further harmonization of the terminology and definitions used by the international macroeconomic statistics manuals concerning loans and interest accrual.

A COMPARISON OF TERMINOLOGY IN THE MANUALS

The macroeconomic statistics manuals generally indicate that they follow the principles of market valuation, but then there is often some ambiguity[13] about whether nominal valuation is preferred,[14] 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.[15]

This principle is followed by the *Monetary and Financial Statistics Manual (MFSM),*[16] *Balance of Payments Manual* fifth edition *(BPM5),*[17] *External Debt Statistics: Guide for Compilers and Users (the ED Guide),*[18] *System of National Accounts 1993 (1993 SNA),*[19] *Government Financial Statistics Manual 2001 (GFSM 2001),*[20] and the *European System of National and Regional Accounts (ESA 95).*[21] 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
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*

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

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

[15] Excluding early repayment penalties, if any.

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

[17] Para. 471.

[18] Para. 2.35.

[19] Para. 14.51.

[20] Para. 7.111.

[21] Para. 7.51.

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[22] 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[23] ... and other changes." This approach is backward-looking referring to the history of the loan. It also uses a forward-looking approach:[24] "...nominal value ... can be calculated by discounting future interest and principal payments at the existing contractual interest rate(s)..." Both approaches are conceptually identical.[25]

This provides a useful yardstick against which to compare the other definitions. The *nominal value*[26] 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:[27] "...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.[28]

The ***GFSM 2001*** also adopts the above *ED Guide* definition of *nominal value*[29] and also the idea that *accrued but unpaid interest*[30] should be included in the principal of the underlying asset.[31] It also follows the convention that reductions of interest incurred but not paid are "commonly referred to" as interest payments.

[22] Appendix III, page 262.

[23] 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.

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

[25] 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.

[26] 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).

[27] Appendix III page 265.

[28] Appendix III page 259 and para. 2.5.

[29] Para. 3.76, footnote.

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

[31] Paras 6.40–41.

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[32] as *the outstanding principal amount*[33] *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[34] 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[35] 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.

The ***BPM5*** uses identical wording to the *1993 SNA*, so it has the same weaknesses. This deficiency is corrected in the *Annotated Outline for the Revision of BPM5 (Annotated Outline)* wherein it says:[36] "...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[37] 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

[32] Para. 205.

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

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

[35] Para. 10.4.

[36] Para. 6.16.

[37] Para. 7.51.

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 terminologies.

There are a number of **other issues** and **errors**. The *1993 SNA*[38] and *BPM5*[39] 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*[40] (*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[41] 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 interest, but as noted in Footnote 27, this does not always occur in practice. The *1993 SNA*[42] 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*.

[38] Para. 13.89.

[39] Para. 471.

[40] Para. 3.7.

[41] Appendix III, Page 259.

[42] 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. He noted in particular, that Option 2 would involve the revision of paragraphs 10.140, 13.22, 13.72, and 14.51 of the *1993 SNA*.

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 of 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 a 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.

The *European Central Bank-Directorate General Statistics* contributed a paper providing support for Option 2 and making an assessment of most of the conclusions referred to in the EDG background paper by Bloem and Gorter. In addition, Annex 1 provides an outline of the accounting framework for financial instruments and the current state of play in the European Union, and Annex 3 provides a useful summary of changes being made to the credit risk assessment framework of banks.

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 Frecault: 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 principles 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) principle 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 guide 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 three 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 Canvas Questionnaire

Loan Valuation in the *1993 SNA*

An Electronic Discussion Group (EDG)[43]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.[44] 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[45] 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.

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

[44] 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.

[45] 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 NONPERFORMING 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?