

**Selected Issues on the Treatment of
Nonperforming Loans in
Macroeconomic Statistics**

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Introduction

The statistical treatment of nonperforming loans in the national and international economic accounts is receiving a lot of attention by national statistical offices. Due to the linkages between loan recognition and interest accrual, and between loan writeoffs and operating surplus, decisions that are reached regarding the treatment of these loans may have a significant impact on the calculation of major aggregates in the national and international economic accounts, including the International Investment Position, National Income, and Government surplus (deficit). Also, these decisions may have a substantial impact on quarterly estimates of external debt that countries will soon release pursuant to the IMF's Special Data Dissemination Standards.

At its October 2001 meeting, the Intersecretariat Working Group on National Accounts concluded that the existing statistical guidelines regarding the treatment of nonperforming loans were inadequate, and it asked the International Monetary Fund to establish an Electronic Discussion Group (EDG) on this topic. A task of the EDG was to review the criteria in the *System of National Accounts 1993 (1993 SNA)* for identifying and recording nonperforming loans, and to determine whether additional or different criteria should be applied. The *1993 SNA* bases the recording of nonperforming loans on the following criteria:

- o the desirability of avoiding entries in the accounts for which there is no sound basis in observable transactions;
- o the need for accounting practices to facilitate comparisons between different economic agents and countries;
- o the need for valuation of loans to be consistent with the debtor's legal obligations; and
- o the need for recommendations to be useful in measures of solvency.

The existing criteria have resulted in many cases where the accounts do not reflect the existence of nonperforming loans in either the flow accounts or balance sheets.¹

In this note, recommendations are made on a number of important questions, and these recommendations are briefly justified. In particular, the treatment of loan principal (that is, how should nonperforming loans – or loans more generally -- be valued?), loan interest (that is, should interest be accrued on nonperforming loans?), and operating surplus (how should profits be measured?) are separately discussed. This note does not attempt to address every macroeconomic statistical question, but instead focuses on questions that are particularly important to the construction of the International Investment Position, the International Transactions Accounts, and National Income.

Loan Principal

In general, existing international standards state that a country's balance sheet and international investment position (IIP) should reflect prices of the current period for external assets and liabilities. *BPM5* paragraph 467 states, in part:

In principle, all external financial assets and liabilities should be measured at current market prices as of the dates involved (i.e., beginnings or ends of reference periods). In practice, however, there may be some departures from the market price principle...

In specifically discussing the loan components of the IIP, *BPM5* paragraph 471 states:

¹ For identification of the principal parts of the *1993 SNA* where nonperforming loans are discussed, see IMF Working Paper WP/01/209, "The Treatment of Nonperforming Loans in Macroeconomic Statistics," by Adriaan M. Bloem and Cornelis N. Gorter.

Among other investment items, those that are not readily transferable among transactors (e.g., loans, deposits, miscellaneous accounts receivable and payable) are recorded in the investment position at nominal or face value (as is the case for currency). In general, that value is an acceptable proxy for market value. However, in recent years, loans to a number of heavily-indebted countries have been subject to significant discounts in secondary markets that emerged for the trading of such debt and brought the valuation of such debt into question. To conform with the market value principle, secondary market quotations should be the basis of valuation for transactions. As to recording the value of such debt in the position, the issue is not as clear. **In principle, values recorded in the position also should be based on secondary market quotations. This presents no problem on the creditor side where claims are valued on the basis of the transactions (secondary market) price. However, on the debtor side, the amounts of principal that debtors are contractually obliged to repay creditors when loans mature are used as the basis of valuation, and this practice represents a departure from the market price principle.** In this particular case, the departure is associated with contractual restrictions that are usually applicable to such loans and that prohibit the debtor from buying back the loans in secondary markets unless the restrictions are waived. (These limitations usually do not apply to bonds or other securities.) The use of market value on the creditor side and nominal values on the debtor side results in an asymmetry between debtor and creditor positions. To deal with that asymmetry, creditors should, if it is feasible, provide supplementary data on nominal values of discounted loans, and debtors should provide such data on market values.

(Bold-face type not in original text.)

The above guidance justifies different valuation methods for loans by creditors (market values are to be used) and debtors (face values are to be used) by noting that creditors and debtors must contend with

different economic circumstances. Specifically, it says that debtors usually are contractually prohibited from re-purchasing their loans in secondary markets at discounted prices, and then argues that this means that face values should be used to value loans from their perspective. This is identified as “a departure from the market price principle,” but it actually seems somewhat supportive of market price concepts. However, it argues that creditors and debtors face different market prices.

The assertion that contractual restrictions usually prohibit debtors from buying back their loans in secondary markets might be examined, because it is given as the justification for the current standard. A question that comes to mind is, even if the statement about nonmarketability is true, do the international standards consider that to be a relevant criterion in valuing any of the other components of the IIP, or is it applicable only in this one instance? And, if applicable only here, why is that?

To address these questions, it may first be useful to again state how marketable instruments are to be valued under existing international standards. Under the *1993 SNA*, financial assets and liabilities should be valued at current prices if they are regularly traded on financial markets, and they should be assigned the same balance sheet valuation whether they are assets or liabilities (SNA 13.64).

Next, what do the international standards say about valuing components of the IIP that are not marketable or that cannot be redeemed? In every case of nonmarketable or nonredeemable assets or liabilities - except this one - either market values are to be used, or, if face values are used, their use is justified with the statement that it is because there is little or no difference between market and face values in such cases. Thus, the cause-and-effect relationship stated in *BPM5* paragraph 471 -- connecting the nonmarketability/nonredeemability of loans to the use of face values in valuing them in the position of debtors -- results in nonmarketable loans being valued using different principles than every other nonmarketable component of the IIP. More specifically, nontradable debt securities are to

be valued at an estimate of their market values.² For deposits, face values are to be used for valuing them in the position of both debtors and creditors, but that is because face values are considered a close or exact approximation of their current market values. Thus, the statement that loans must be valued at nominal prices by the debtor because the loans “are usually not marketable” appears to be inconsistent with the requirement to value all other components of the IIP—including debt securities, equity securities, and direct investment positions—at an estimate of current prices whether or not they may be marketable. In fact, even customized financial instruments that clearly cannot be marketed, such as over-the-counter financial derivatives, are now to be recorded in the IIP at an estimate of their current market values; the international standards justify this practice because these instruments are considered to be “offsettable” by entering into reverse positions.

Although *BPM5* paragraph 471 asserts that debtors are contractually restricted from buying back their debt, and that debtors are therefore obliged to repay the full face amount of principal, it is apparent that debtors (including those in difficult financial situations) often actually do renegotiate the terms of nonmarketable loans and receive other forms of debt relief. This is recognized elsewhere in *BPM5*, including in Chapter XV (on current transfers) and in Chapter XVII (on capital transfers). Debt relief also appears on the *BPM5* list of “standard components and additional detail” for the balance of payments.

In light of the above, it may be difficult to answer the question posed above, on why the international standards consider marketability to be a justification for using face instead of market values for loans (and no other component of the IIP), and only on the debtor side of the accounts.

² *BPM5* paragraph 468 states, in part: “*Portfolio investment* (equity securities, debt securities, and financial derivatives) is valued at current market prices at the appropriate reference dates. . . .For debt securities that are not readily tradable, the net present value of the expected stream of future payments/receipts associated with the securities could be used to estimate market value.”

Notwithstanding the above discussion, it must be acknowledged that data on both the face value and market value of loans is of considerable interest to some data users.

RECOMMENDATIONS:

Based on the above discussion, I make the following observations and recommendations:

1. Loan principal: Recording by Creditors:

As previously noted, existing international standards direct creditors to value loan principal outstanding on both marketable and nonmarketable debt using estimates of current market prices. Supplementary data on nominal values of discounted loans are encouraged to be provided, if feasible.

I recommend that current market prices continue to be used in estimating the overall IIP. However, I recommend that data for individual countries be shown at face, or nominal, amounts. For balancing purposes, an aggregate, global level adjustment would have to be developed, reflecting the difference between the sum of the values shown for individual countries (at nominal amounts) and the value shown for all countries combined (at market value).

This recommendation is made because the adjustment from nominal to market values is often a highly imprecise undertaking, and, at the global level, errors tend to be offsetting. Debtors and creditors will know and can agree on the nominal value of debt, but market values of nonmarketable debt are much more judgmental, and the quality of estimates at sub-global levels of detail would often be poor and consequently hard to defend. Furthermore, if statistical organizations were required to disclose their estimates of the market value of nonmarketable debt at a bilateral level, there could be unintended consequences on financial markets. For example, if these organizations wrote down the value of their

nation's claims on individual foreign countries that may be experiencing payment difficulties before debtholders wrote down those values, financial markets could react negatively to the release of the estimates. (A similar situation would arise if statistical agencies wrote down the value of their country's debt obligations; this is discussed later.) Even though the current international standard does direct compilers to record market values for nonmarketable debt on the creditor side of the accounts, nominal values are actually being used by many (most?) countries, including the United States.

The above recommendations would result in the overall IIP being presented on a market value basis, which is consistent with existing international standards. They also would provide data users with important information on the contractually owed amount of debt (i.e., face value) at an individual country level.

2. Loan principal: Recording by Debtors:

For debtors, existing international standards direct compilers to value loan principal outstanding on nonmarketable debt using face or nominal values instead of current market prices.

Similar to my recommendation for recording by creditors, I recommend that, in a debtor's IIP, current market values be shown at the level of all countries combined, but that face values be shown at all more detailed levels. The justifications for these recommendations are similar to those given above.

It should be noted that the valuation difficulties noted for creditors are probably even more severe for debtors. That is because, while creditors often do establish reserves for, or write down the values of, nonperforming loans, debtors do not adjust their balance sheets similarly; debtors usually continue to show the full face amount of their debt obligations, even if the debt is in a nonperforming or default

status. Debtors often do not have information in their customary accounting records on the “market values” of their nonperforming debt, and could provide reliable estimates only of face values.

Selected Issues for Discussion: Loan principal

(1) The general principle to record all assets in the IIP at current market prices appears to be applicable to all loans, not just nonperforming loans. It is likely that the current value of some loans may be more than their face values, such as in the case where the credit rating for an issuer of debt carrying a fixed interest rate improves over time, or where loans were extended at fixed interest rates in an environment where market interest rates have subsequently declined. In these cases, the general principle to value all assets in the IIP at current market prices would require that some loans be valued at amounts higher than face values. I propose that this be the accepted practice, at the level of all foreign countries combined. (However, similar to my recommendations above, at more detailed levels, face values should be shown.)

(2) A question that may arise is whether to record direct investment loans similarly to loans between unaffiliated parties. On the one hand, the terms of affiliated loans are sometimes not set at arm’s length - the interest rates or payment terms for them may change at any time, or they might be converted at parent company discretion from debt to equity investment. Also, it may seem inconsistent to write down the value of these loans - by arguing that the affiliate may default - before writing the parent’s investment in the net worth of the affiliate down to zero. (This is because debtholders have claims that are superior to those of stockholders; thus, owners should see the value of their holdings depleted or eliminated before any claims of noteholders would prove uncollectible.) On the other hand, direct investment loans might be valued, marketed, or offset in financial markets in many of the same

ways that loans between unaffiliated parties may be valued, marketed, or offset, and this argues that direct investment loans should follow the same valuation principles as other loans.

My recommendation is to value direct investment loans similarly to other loans. That is, loans between affiliated enterprises classified in direct investment debt should be shown at face amount at subglobal levels, and, at the level of all foreign countries combined, the value of these loans should be adjusted to market values. (These recommendations seem broadly consistent with the current international standard: *BPM5* paragraphs 376-7, and paragraph 467, say that market price is the preferred basis for valuing direct investment flows and stocks, but it recognizes that book values are often used in practice.) This issue may benefit from further discussion.³

Interest on loans

For both creditors and debtors, interest flows on performing loans should be accrued at stated rates. For loans in nonaccrual status, I recommend that interest cease to be recorded because collectibility is highly uncertain.⁴ For loans with interest or principal substantially in arrears, but that are not in nonaccrual status, interest should be recorded on a cash flow basis, because collectibility is uncertain.

³ *SNA93* paragraph 13.72 says that, for loans, the values to be recorded in the balance sheets of both creditors and debtors are the amounts of principal that the debtors are contractually obliged to repay the creditor (i.e., nominal values). Thus, *SNA93* and *BPM5* are inconsistent, and, within *BPM5*, there are some inconsistencies between direct and other investment, and between nonmarketable loans and other assets/liabilities.

⁴ In addition, for large loans that enter nonaccrual status, any previously accrued interest should be reversed. Further, any payments on the loan while it is in nonaccrual status should be applied directly to principal and not interest, so that interest income (a component of current operating surplus) is not boosted in the current period at the risk of increasing capital losses (that are ignored in the calculation of current operating surplus) in a subsequent period.

Different countries may have different national treatments, with banks and other institutions in some countries ceasing to accrue interest on loans more than 90 days overdue, and others ceasing to accrue interest on loans overdue for some other period of time. In most cases, nonperforming loans are a very small proportion of total loans outstanding, and so it may be impractical to try to standardize country practices in this area just for statistical account compilation purposes. (Financial, tax, and regulatory accounting rules substantially differ across nations, and the statistical data standard setters often do not attempt to impose uniformity where the amounts involved are not substantial.) Therefore, the recommendation here is to follow existing country practices regarding accrual or nonaccrual of interest, except in the cases where country guidelines do not exist, or, if they exist, allow for a substantial amount of subjectivity; in these cases, interest should cease to accrue on loans that have been nonperforming for at least 90 days. Whatever their methodology, countries' practices should be transparent, and countries should provide metadata.

Output and operating surplus (or profits)

An important question is how should loan writedowns or writeoffs be treated in the calculation of output (which in turn affects operating surplus) - in particular, how should the output of banks or other creditors be impacted when loans are written down or off? Should the impact -- whatever its size -- be recorded in the period that specific bad or impaired loans are recognized, or should the calculation of output (and operating surplus) reflect a periodic charge for expected loan losses? How should the offsetting entry be treated in the accounts -- to maintain balance in the accounts, it is clear that changes in the output of banks and other creditors must be balanced by changes in the final consumption or in intermediate purchases by the sectors that purchase the output.

In general, extraordinary writeoffs of loans (or of other types of financial instruments) are treated as capital losses that are excluded from the calculation of output and, residually, operating surplus. However, some amount of loan writeoff may be viewed as an ordinary and necessary business expense, and the calculation of value added would be overstated if these were entirely ignored in its calculation.

National accounts experts have been considering a new methodology for calculating financial institution output that utilizes the concept of “expected” loan losses.⁵ More specifically, in the case of banks and other lenders, output may be set equal to property income receipts (primarily interest), minus interest payments, minus expected loan losses. (When actual loan losses are recognized, there would be no immediate impact on output, either for the lender or borrower.) In essence, the writedown or writeoff of loans, when different from expected amounts, is treated as a capital loss that is excluded from the calculation of current period output. A similar methodology is being considered by an OECD expert group on insurance (it would be adjusted to take account of “expected insurance claims” rather than “expected loan losses”).

The international groups of experts have not yet reached any final conclusions, and so the symmetry between the treatment proposed here for calculating lender output (and operating surplus) and the treatment that is ultimately proposed for insurance or other financial industries by the expert groups cannot be assessed at this time.

⁵ See Fixler, Dennis J. and Brent R. Moulton, “Comments on the Treatment of Holding Gains and Losses in the National Accounts,” unpublished paper presented at the OECD meeting of national accounts experts, Paris, 9-12 October, 2001. Available at <http://www.oecd.org/pdf/M00017000/M00017916.pdf>.