International Standards for Impairment and Provisions and their Implications for Financial Soundness Indicators (FSIs)

Disclaimer:

International Standards for Impairment and Provisions and their Implications for Financial Soundness Indicators (FSIs)[1]

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This paper reviews various international standards for the recognition, valuation, and provisioning for substandard financial assets, to examine their effects on financial soundness indicators (FSIs)[2] and to attempt to identify best practices or the most suitable standards to apply in compilation of FSIs. It will be seen that the treatments of substandard assets, impairment, and provisions are inseparably integrated into broader frameworks that describe the recognition and valuation of the items in the income statements and balance sheets of financial enterprises. The various standards differ in their effects on gross and net balance sheet values, the recognition and derecognition of instruments, income and loss, net worth, capital adequacy ratios, monetary and credit aggregates, and financial soundness indicators. Moreover, wide variation in practices between countries hinders the ability to make valid international comparisons.[3] This paper notes that fundamental differences exist between the standards, and that the debate on the appropriate standards is on-going, which complicates the process of identifying the standards most appropriate for FSIs.

In recognition of these important consequences, numerous authorities, including the IMF, the BIS, the Basel Committee on Banking Supervision (BCBS), the IASB, and many others, have announced their support for efforts to create harmonized international standards for recognizing and valuing substandard assets and to bring treatments into line with underlying economic transactions and values.[4] Importantly, in June 2001, the IMF Executive Board in a

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[1] The author of this contribution to the discussion group on this site bears the sole responsibility for both the substance and the style of the contents. The purpose of the discussion group is to elicit comments and to promote debate on specific topics. As such, the views expressed on any of the issues raised are not to be attributed to the IMF. The author's email address is rkrueger@imf.org.

[2] At the request of the Executive Board of the IMF, since 1999 staff have been investigating issues related to the compilation and use of financial soundness indicators – measures of the financial condition and stability of the financial sector. A recent summary of this work is found in *Financial Soundness Indicators: Analytical Aspects and Country Practices*. IMF Occasional Paper 212. 2002.

[3] It has also been noted that the treatment of impaired assets can have real economic consequences, such as affecting taxation or fostering macroeconomic procyclicality.

[4] For example, "The [Basel] Committee strongly supports efforts to harmonize accounting practice internationally. From a banking supervisory perspective, international accounting harmonization could potentially strengthen – and make more transparent – the link between measurement standards and public reporting and prudential requirements." (BCBS 2000; p.6)

review of IMF policy for the development of FSIs explicitly endorsed the Fund's involvement in such initiatives.

> *Directors supported the active collaboration with relevant international standards setting organizations aimed at developing harmonized standards and practices that will improve the reliability and comparability of MPIs. (Macroprudential indicators, now referred to as FSIs) across countries. In this regard, special attention should be given to improving the international comparability of data for nonperforming assets and provisions, and the valuation of liabilities as well as assets. (Concluding Remarks of the Acting Chairman Macroprudential Indicators. Buff/01/94)*

This paper deals with the use of provisions to effect reductions in the carrying value of loans and other assets resulting from impairment. In this regard, it is useful to clarify the definitions of the terms "provisions" and "contingencies", which have several distinct applications, as shown in Table 1.

Table 1 – Applications of the terms "Provision" and "Contingency"

Application	Definition and Comments
Provision – Definition 1 To currently recognize actual obligations, but with amounts that require estimation.	An expense recognized currently when the exact future amount of payment is uncertain (such as for estimated income taxes). These are charges made against income when the exact amount of a future payment is unknown. They are generally recorded as an "other liability".
Provision – Definition 2 To recognize a lessening of the value of assets.	These are entries against the value of assets, such as a loan provision reflecting a reduced likelihood of full repayment, or an allowance to reduce the carrying value of a security to market value. • *Specific provisions* are charges based on evidence of deterioration of specific assets. They are usually netted against the specific asset on the asset side of the balance sheet. • *General provisions* are taken against general credit risk and risk of default, not tied to specific assets. If they are a disclosed component of net worth, they may be included in Basel capital.
Provision – Definition 3 To reserve amounts of retained earnings for a specified purpose.	These are reserves out of retained earnings for a specified purpose that prevent their distribution to shareholders.

Contingency A record of uncertain future events that could affect income or the balance sheet.	Instruments that depend on some uncertain future action before being activated. They are generally off-balance-sheet and may be required to be disclosed, or sometimes put on balance sheet if an estimate of fair value can be attributed.

The specific consequences for the treatment of impairments and provisions in income statements and balance sheets can be considered in a broad context covering how several international standards frameworks[5] address several fundamental questions. The questions are:

- *Asset-liability status*. What is a financial asset and liability? What are contingent instruments? (Table 2)

- *Recognition and valuation/Derecognition*. What standards determine the initial recognition and valuation of a financial instrument, and its subsequent derecognition? Are recognition and derecognition to be effected on entire financial instruments, or are partial transactions permitted that involve residual benefits and obligations? (Table 3)

- *Changes in value*. How should changes in value of financial instruments be recorded in income statements and balance sheets? (Table 4)

- *Substandard instruments and write-offs*. How should substandard or impaired assets and liabilities be recorded in income statements and balance sheets? What are the rules for recording provisions and write-offs? (Table 5)

[5] The frameworks reviewed include the statistical standards presented in the *System of National Accounts, 1993* and the *Manual on Monetary and Financial Statistics*, the International Accounting Standards (IAS), the results of a study by the Joint Working Group of Standard Setters (JWG) on the implications of full fair-value accounting, the bank supervisory standards of the Basel Committee on Banking Supervision (Basel), and other selected references, such as the Joint Working Group of Banking Associations on Financial Instruments.

Table 2 – Standards related to asset/liability status		
Framework	Key Standards	Comments
National Accounts	A financial asset is an economic asset involving a relationship between units (usually an unconditional creditor/debtor relationship) that provides economic benefits by generating interest income, providing claims on the net income of other units, serving as store of value, or providing holding gains or losses. (see SNA ¶11.16-17; MFSM ¶ 119) A financial asset entitles the creditor to receive payment from a debtor in circumstances specified in a contract between them, or specifies between the two parties certain rights or obligations, the nature of which requires them to be treated as financial. (SNA ¶11.17) Monetary gold and SDRs are treated as financial assets, by convention. Transactions are recorded in the financial account only when an actual financial asset is created or changes ownership. (SNA ¶11.26) Contingencies are not actual current financial assets and should not be recorded in the SNA. The principal characteristic of contingencies is that one or more conditions must be fulfilled before a financial transaction takes place. (SNA ¶11.25)	Standards taken from *System of National Accounts 1993,* and *Monetary and Financial Statistics Manual*. The "financial asset boundary" separates financial assets from contingencies. Although there is slight blurring at the edges, the SNA limits financial assets to unconditional instruments between creditor/debtor or owner/ownee relationships. The financial account records only transactions in these instruments. Most derivatives are deemed financial assets because they have de facto market value by being offsetable in the market.
International Accounting Standards	A *financial instrument* is a contract that results in a financial asset of one enterprise and a financial liability or equity of another enterprise. A *financial asset* is cash, a contractual right to receive cash or another financial instrument, a contractual right to exchange financial instruments with another enterprise on terms that are potentially favorable, or an equity instrument of another enterprise. A *financial liability* is an obligation to deliver cash or another financial instrument or an obligation to exchange financial instruments with another enterprise on terms that are potentially unfavorable. Included are financial guarantee contracts if payments are made in response to changes in interest rates, security prices, commodity prices, credit ratings, exchange rates, price indices, and guarantees provided in conjunction with derecognition of an asset. (IAS 39) Provisions, which are recognized on balance sheets, are distinguished from off-balance-sheet contingencies because there is a likely present obligation involving probable economic payments. (IAS 37)	Standards from IAS 37 *Provisions, Contingent Liabilities, and Contingent Assets*, and IAS 39 *Financial Instruments: Recognition and Measurement* This definition defines all derivatives as financial instruments, and can include contingent instruments that constitute likely obligations with nonzero payments.

Joint Working Group	An enterprise should recognize financial assets when, and only when, it has contractual rights under a financial instrument that result in an asset. Similar for liabilities. ¶ 31. If a contractual right is transferred in a way that has substance, rules establish in what form to recognize any retained components. A transfer has substance if the transferee conducts substantial business with parties other than the transferor, and the components transferred have been isolated from the transferor. A transfer that does not have substance should not affect recognized financial assets and liabilities. Instruments include conditional financial instruments, forwards, options, financial guarantees, and sets of rights and obligations in a hybrid financial instruments. Standards apply to hybrid instruments, which are sets of contractual rights and obligations that if they were separated would be considered financial instruments. Standards apply to contracts to buy/sell nonfinancial items that can be settled net by a financial instrument, except for contracts for normal delivery of nonfinancial items. Standards apply to servicing assets and liabilities that are retained when the underlying assets/liabilities are derecognized. Derecognition of an instrument or component occurs when, and only when, it no longer has the contractual rights. Under arrangements to pass funds from one enterprise to another, the intermediary should usually record separate asset and liability positions, unless under limited circumstances, the rights have been substantially transferred.	Standards from *Financial Instruments and Similar Items.*[6] (December 2000) The JWG treats financial instruments as a set of contractual arrangements that can be individually negotiated. Explicitly covers hybrids and stripped instruments. Transferees should be separate from transferors, which enhances transparency and precludes internal gains/losses. Encompasses the common use of servicing assets and liabilities.

[6] "This Draft Standard proposes far-reaching changes to accounting for financial instruments and similar items. These include: (a) measurement of virtually all financial instruments at fair value; (b) recognition of virtually all gains and losses from changes in fair value in the income statement in the periods in which they arise; (c) preclusion of special accounting for financial instruments used in hedging relationships; (d) adoption of a components approach for accounting of transfers of financial assets; and (e) some expansion of disclosures about financial instruments, financial risk positions, and income statement effects." (JWG. page I)

Basel Committee on Banking Supervision	Balance sheet recognition of loans, whether originated or purchased, when units become party to the contractual provisions of the loan. Derecognition when rights to benefits specified in the contract have been realized, rights expire, or contractual rights that comprise the loan (or a portion of the loan) are surrendered or control is lost.	Standards from *Sound Practices for Loan Accounting, Credit Risk Disclosure, and Related Matters*. (1998)

Table 3 – Standards related to Recognition and initial valuation/Derecognition.		
Framework	Key Standards	Comments
National Accounts	Financial assets and liabilities are recognized at market value on balance sheets as a result of financial transactions. Transactions are recorded in the financial account only when an actual financial asset is created or changes ownership. (SNA ¶11.26)	Derecognition also occurs as a result of financial transactions. Mutual cancellation by both the creditor and debtor results in derecognition.
International Accounting Standards	Financial assets and liabilities are recognized on balance sheets when, and only when, an enterprise becomes party to contractual provisions of an instrument. (IAS 39 ¶27) Forward contracts to buy or sell financial instruments or commodities are recognized on the commitment date. Derecognition occurs when, and only when, an enterprise loses control of the contractual rights (or portion thereof). Derecognition occurs when rights to benefits specified in the contract have been realized, rights expire, or contractual rights are surrendered. (IAS 39 ¶35) If a financial instrument is transferred, but not derecognized, the transaction is treated as collateralized borrowing. (IAS 39 ¶36) If it is determined that the position of either party is that the transferor has retained control, the transferor should not derecognize the instrument. (IAS 39 ¶37) The transferor has not lost control if he has the right to reacquire, is entitled and obligated to repurchase on terms that provide a lender's return on the asset (interest equivalent to that on a loan secured by the asset.), or has retained substantially all risks and returns through a total return swap. (IAS 39 ¶38) A transferor has lost control only if the transferee has the ability to obtain the benefits of the transferred instrument, such as freedom to sell or pledge the full value of the instrument. (IAS 39 ¶41) Exchange of a debt instrument for another with materially different terms results in derecognition of the old instrument and recognition of the new; a gain/loss should be recognized on the transaction. (IAS 39 ¶51,61) Initial recognition is at cost, which is the fair value of acquiring the instrument.	Forwards, even though they may have a zero initial value, expose both parties to price risk from initiation. These standards reflect that derecognition might result in creation of a new debt instrument, retention of rights or risk, or guarantees that need to be recognized in the income statement and balance sheet. This is not dealt with directly in the SNA.

Joint Working Group	Initial recognition is at fair value, which is an estimate of price an enterprise would have received if it had sold the asset or paid if it have been relieved of the liability on the measurement data in an arm's length transaction motivated by normal business conditions. Derecognition of an asset or liability or component thereof is ceasing to recognize that asset, liability, or component on an enterprise's balance sheet. Components of a financial instrument are the contractual rights to future benefits and contractual obligations to transfer economic benefits that make up the financial instrument. A transfer occurs when one party passes to another the whole or some component of one or more of its assets. Transfer is broadly defined to include all forms of sale, assignment, provision of collateral, sacrifice, distribution, and other exchange. It does not include origination, issuance, or expiry. The JWG concluded that the traditional historical cost "effective interest" method is not appropriate for the analysis of income determined on a fair value basis for interest bearing financial instruments." Page iv.	Components of financial instruments can be stripped and separately derecognized. It is not necessary to recognize or derecognize entire instruments. This implies creation of new or residual instruments. The JWG rejects the "debtor approach" to interest accruals, which will affect the carrying value of balance sheet assets and comprehensive income.
Basel Committee on Banking Supervision	Balance sheet recognition of loans, whether originated or purchased, when units become party to the contractual provisions of the loan. (BCBS 1998) Derecognition when rights to benefits specified in the contract have been realized, rights expire, or contractual rights that comprise the loan (or a portion of the loan) are surrendered or control is lost.	

Table 4 – Standards related to subsequent measurement of changes in value in the income statement and balance sheet		
Framework	Key Standards	Comments
National Accounts	Transactions and balance sheet are on an accrual basis. Values of securities at the end of each accounting period are recorded at market value; Loans and deposits are recorded at nominal value. The total change in positions is be broken down into three flow changes: changes due to transactions are recorded in the financial account; those due to changes in market values or exchange rates in the revaluation account; and other changes are recorded in the Other Changes in Volume of Assets (OCVA) account.	The system uses market values for securities and nominal value for loans and deposits on an accrual basis
International Accounting Standards	Initial recognition on balance sheet when the enterprise becomes party to contractual provisions of an instrument. Subsequent timing depends on category of instrument. Four categories are defined. *Instruments held for trading* are intended to generate a profit from changes in price or margins. All financial derivatives are trading instruments – unless designated as hedges – that are recorded at fair value on an accrual basis. *Held-to-maturity investments* have fixed or determinable payments and fixed maturity, and the enterprise has intent and ability to hold to maturity. *Loans and receivables originated by the enterprise*, other than those intended for sale. *Available for sale financial assets* are all other instruments. All subsequent timing is on a fair value, accrual basis, unless (a) loans and receivables originated not for trading, (b) held-to-maturity investments, or (c) those without reliable fair value. Derivatives designated as hedges are on a fair value accrual basis; non-derivative hedging instruments can only be for foreign-currency risk. Hedge accounting recognizes fair value changes in the hedging instrument and the item being hedged. Originated loans and receivables can be hedged with respect to interest rate risk; held-to-maturity investments can be hedged only with respect to foreign currency risk.	

Joint Working Group	All financial instruments should be remeasured at fair value at each measurement date. ¶ 69 An enterprise should measure part of a hybrid contract that is to be measured at fair value as if it were a free standing instrument. ¶ 74	
Basel Committee on Banking Supervision	A bank should recognize interest income on an unimpaired loan on an accrual basis. ¶ 12 For impaired loans, accrual of interest should cease, or be accrued with a specific allowance for full amount of accrued interest. However, impaired loans carried at estimated expected future cash flows can accrue interest on the carrying amount. ¶ 13	For impaired loans, in net, no accruals of interest income should be shown within income or on the asset side of the balance sheet.

Table 5 – Standards related to substandard instruments, provisions, and write-offs

Framework	Key Standards	Comments
National Accounts	No changes in value of loans are recorded due to lessened prospects for full repayment are made, unless a mutual write-off occurs. No rules are established for accounting for loan provisions.	The symmetry in valuation between assets and liabilities, in conjunction with continuing fixed legal liabilities by debtors, leave no room for impairment related reductions in the value of loans.
International Accounting Standards	"A financial instrument is impaired if its carrying amount is greater than it estimated recoverable amount. An enterprise should assess at each balance sheet date whether there is any objective evidence that a financial asset or group of assets may be impaired. If any such evidence exists, the enterprise should estimate the recoverable amount…and recognize any impairment loss." (IAS 39 ¶109) "Impairment would result if any interest or principal payments are reduced, forgiven, or delayed." (www.iasplus.com/standard/ias39.htm) A loss is recognized in net profit when an instrument is impaired. (IAS 39 ¶108) For loans, receivables and held-to-maturity investments, expected future cash flows are discounted at the financial instruments original effective interest rate. (IAS 39 ¶111) After a write down, interest income is based on the rate used to discount future cash flows for the purpose of measuring the recoverable amount. (IAS 39 ¶116)	Impairment is defined as the carrying amount exceeding estimated recovery.
Joint Working Group	An "impaired loan asset" is a loan asset whose credit quality has deteriorated to the extent that it is more likely than not that the lender will fail to receive the full amounts owned on or before the scheduled payment dates in accordance with the terms of the loan contract. (¶ 7) Changes in value due to impairment are to be reflected in reduced fair value on an accrual basis.	Impairment is defined as probability of less than full recovery is greater than that of full recovery. Changes in fair value (rather than provisions) should capture any changes in value due to impairment.

Basel Committee on Banking Supervision	Impairment should be identified and recognized when it is not probable or no reasonable assurance exists that the enterprise will be able to collect all amounts due according to the contractual terms. (BCBS 2000, p.3.) An allowance or charge-off should be made in the period in which the impairment occurs. The instrument should be measured at its estimated realizable value. Aggregate specific and general allowances should be adequate to absorb credit losses in the loan portfolio. “Restructured troubled loans” are those in which the lender grants concessions that it would not otherwise consider. This results in a charge to income in the period when the loan was restructured, based on net realizable value taking into account all concessions. Restructuring often implies modification of interest and other terms. When impairment is recognized, accrual of interest should cease or a specific allowance made for the full value of the interest accrual. When a loan is carried at present discount value of expected future cash flows, interest may be accrued on the carrying amount and included in net income.	Interest is permitted on fair value carrying amount after impairment is recognized. Changes in market value due to probable deterioration in the collection of the full amount on are handled through a charge-off or allowance. Separate allowances on accruals of income appear to be allowed.
Borio and Lowe (BIS)	Interest rates carry a premium for perceived default risk, or competitive conditions may result in premia or discounts from general interest rates. Thus, financial instruments can have embedded gains that may already compensate for credit risk and obviate a need for provisions. In concept, negative provisions are possible.[7] [8]	This innovative formulation suggests that IAS 39 differs from fair value because under IAS 39 (1) provisions never exist at origination, (2) only positive provisions exist, and (3) movements in market rates do not affect the appropriate provision.
National supervisory standards	Based on either general deterioration in the ability of the borrower to make payment or history on nonpayment. Typically, classes of asset quality are established and provisions are progressively applied. See appendix 1 for several examples.	This is the most common methodology at this time, but the classifications are not standard, nor are allowances.

[7] A negative provision would help compensate for understatement of assets, and any resultant underpayment of taxes.

[8] Borio and Lowe (p. 47) consider unresolved the treatment of how to account for changes in loan values due to changes in market interest rates, which of course include changes in risk premia, either specific to firms or in general. They suggest that it could be possible to adjust the original discount rate to reflect movements in risk-free rates, which (a) could give rise to provisions for embedded credit and interest rate losses, and (b) would depart from the SNA debtor (or contractual) valuation principle.

An examination of the tables above reveals at least five different concepts of valuation and provisioning, which are briefly described below.

- *Joint Working Group recommendations*. The JWG, which was established as a study group to systematically review the consequences of full-scale application of fair value standards, provides perhaps the most radical option. It recommends comprehensive coverage of financial instruments, valuing all financial instruments at fair value[9], use of a comprehensive definition of income based on changes in the fair value of financial instruments, treating financial instruments as sets of contractual benefits and obligations that can stripped and separately marketed, and applying requirements for substantial transfer before derecognition is permitted.

- *National accounts presentation based on SNA standards*. The SNA use of market values for tradable financial instruments has similarities in spirit with the application of fair values, but in other respects there are sharp differences between key elements of the SNA approach and those of other standard setters. For example, the national accounts have the most limited definition of a financial asset as they exclude all contingent instruments, apply different valuations to tradable and nontradable instruments, disaggregate value changes into changes due to transactions, revaluations, and other changes in volume, reductions in values as a result of impairment or provisioning of loans are not recognized, financial instruments must be recorded symmetrically on the creditor and debtor balance sheet – partially in recognition of the debtor's continuing legal liability, provisions are not encompassed, different treatments based on motivation are not recognized, and derecognition is based on entire instruments rather than on components.

- *International Accounting Standards*. The IAS standards provide what is referred to as a mixed attributes model, in which some instruments are recorded at fair value, others are recorded at cost, and special hedging standards exist. Within the IAS, depending of the type or use of the asset, substandard assets and impairment are reflected either through changes in fair value, or through provisioning.[10]

- *Cost with provisioning and reserves approach*. Under this approach used in many countries, financial instruments are recorded on balance sheets at amortized cost and changes in value due to impairment are handled by establishing provisions or reserves. This approach commonly bases adjustments on observed market information (such as 90-days overdue payments), rather than expectations of future receipts. Elements of this approach are retained in many countries' accounting systems and widespread use of

[9] Rigorous fair value accounting removes the possibility of hidden reserves on financial assets.

[10] The Joint Working Group of Banking Associations on Financial Instruments in *Accounting for Financial Instruments for Banks* (October 1999) strongly endorsed the continuing use of a mixed model because – in the WG's view – it best captures the diverse nature of various types of instruments and differences in motivation.

various provisions and reserves continues, but in many countries elements of market price or fair value accounting are increasingly being integrated.

- *Macroprudential, forward provisioning.* The BIS has taken the view that prudential risk builds during the expansionary phase of a cycle, and therefore, as discussed in a paper by Borio and Lowe in the BIS Quarterly Review[11], provisioning based on historical information can provide misleading information about future risks and also can be pro-cyclical. They suggest that supervisors should adopt a forward-looking and dynamic view toward provisions as something that must be examined over the entire cycle, as a means to enhance stability. In contrast, they argue that accountants and tax collectors take a more circumspect view and prefer use of more objective, backward-looking criteria. The concept of forward looking provisions is embodied in a Spanish proposal for a "statistical provision" based on estimates of probable future loss for different types of loans; however, the concept is still under discussion and does not yet appear to have widespread backing.[12]

Within the context of construction of financial soundness indicators, it is possible to identify several standards or practices within these frameworks that could be applied in the compilation of FSIs to enhance the international comparability.

- The fair value model has been broadly accepted in the work of the IASB and the BCBS for valuation of liquid instruments and is also viewed as applicable for many illiquid financial instruments, and thus can be viewed as a generally accepted standard. It is thus recommended that absent evidence that the assumptions underlying the fair value model do not apply in specific situations or countries, in accordance with the IAS, the impairment of securities should be handled through their valuation at fair value or a constructed equivalent, and loans should be treated as impaired if there is likelihood that full recovery will not occur.

- However, for the foreseeable future, the fair value model seems unlikely to be adopted fully and thus mixed attributes models in some form will continue to be used. In such models, some changes in value will be reflected by fair value changes, and others by provisioning. The full fair value approach eventually may gain fuller acceptance, but for now it is not fully embraced within the IAS and there appears to be fairly well entrenched resistance to completely abandoning mixed models. It can be concluded that the methodology for financial soundness indicators will need to accommodate both fair value and mixed methods of dealing with impairment. However, both models imply departures from the SNA standards, which do not recognize provisioning for loans.

[11] Borio and Lowe. *To Provision or Not to Provision*. BIS Quarterly Review. September 2001 p. 40.

[12] In June 2002, at a consultative meeting at the IMF of international and regional organizations on the draft Compilation Guide on Financial Soundness Indicators, there were no expressions of active support for use of dynamic provisioning.

- Whenever possible, in statistical reporting for compilation of FSIs, in order to promote greater agreement with the results of fair value accounting, it is recommended that specific provisions should be netted against the corresponding gross asset on the asset side, rather than recording the provision as a liability as is sometimes done. It is also recommended that statistical balance sheets separately identify the sum of general provisions and statistical provisions within net worth because they are measures of possible future loss on the portfolio and thus are relevant for macroprudential analysis.

- Accruals of income on impaired loans can be handled in several ways.

    - For fair value instruments, accruals can continue under the presumption that the changes in fair value reflect the prospect that there will only be partial recovery on the asset.[13]

    - Accruals should cease for impaired instruments, or

    - Accruals can continue, but be fully provisioned, so that no net income or increase in the total value of the asset is recorded.

- Within accounting and supervisory standards, classifying loans as nonperforming appears to be simply a final decisive step along a continuum of assets of progressively lesser quality. At the point of determination that an asset is a total loss, it should be removed from the balance sheet.[14]

    - Objective criteria can be used for classifying assets as nonperforming. An international consensus appears to be developing that payments being over 90 days overdue is a standard for defining overdue loans[15]. However, the tone of

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[13] Under these circumstances, a new effective interest rate could be applied to the impaired instrument, as if novation has occurred. IAS 39 ¶116 seems to imply recalibration of the discount rate. The SNA treatment is related in that it would also be appropriate to continue to accrue income on the market value of instruments, but the SNA treatment for loans would not correspond to the extent that loans are not written down or that inappropriate originally-contracted interest rates might be applied.

[14] These take-downs in assets might occur without erasing a debtor's legal obligation under the financial instrument, thereby creating an asymmetry that is not consistent with the SNA's symmetry requirements. It might be resolved in the SNA by either (a) writing down the debtor's obligation based on the evidence that impairment under fair value standards reflects the underlying economic reality of diminished recovery, or (b) using a full information approach for the creditor by showing on the asset side both the gross claim and the provision against the claim.

[15] At the aforementioned June 2002 consultative meeting on the draft Compilation Guide on Financial Soundness Indicators, there was widespread agreement on use of the 90-day standard to define nonperforming loans. Also, a review by Cortavarria, et. al. (2000) concluded that there was a rough pattern in which that special mention loans are past due up to 3 months, substandard are past due up to 6 months, doubtful are overdue over 6 months to a year, and losses are ascribed for loans over one year overdue, and that *nonperforming loans* are often those in the last three categories. However, they found great variation, and their

(continued)

many of the discussions is that impairment and nonperforming status should be determined through a comprehensive examination of the instrument and the debtor's condition, resulting in an informed judgment about the extent of possible impairment, and thus impairment could be recognized more rapidly than 90 days (including instantaneously in the case of fair value instruments), or under exceptional circumstances a period over 90 days could be appropriate.

  - In this continuum formulation, as noted in the immediately preceding bullet, income accruals should be ended or fully provisioned on the impaired portion, but can continue on the diminished fair value carrying value of the performing portion of the asset. *This latter condition is equivalent of treating the decrease in fair value as a volume change*.[16]

- If it is accepted that accruals on assets cease to the degree that they are (partially or totally) impaired, then all attribution of income (and FISIM[17] estimation within the SNA framework) should be terminated on the impaired portion. The impact on accounts will be lessened to the extent that partial impairment can be recognized, as under fair value, rather than having to treat an entire asset as impaired.

Several additional points rise from the tables that are relevant for FSIs and which highlight some of the differences in approach between contemporary accounting and supervisory standards and the SNA standards.

- The IAS and JWG have advanced derecognition standards to encompass the stripping of particular features of an instrument and to define standards for substantial transfer, both of which go well beyond what was envisioned in the SNA. This concept of financial instruments as a set of negotiable contractual components can lead to ambiguous situations as to what has been derecognized and to whom, and may require reconsideration in the national accounts about the definitions of financial assets and how

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Table 3 that lists criteria for nonperforming loans in Asian countries shows relatively short periods before loans are considered nonperforming, such as three months.

[16] Bloem and Gorter state that within the SNA, "the fact that partial impairment to tradable debt instruments is treated as a price effect, but the complete loss of the financial instruments is classified as a volume effect is not elegant from a theoretical point of view. *Indeed, any impairment would seem to be in essence a change in volume (quality) (emphasis added)*, although it is difficult in practice to isolate this volume change within the overall value change of a traded financial instrument." (p.15).

[17] FISIM – Financial Intermediation Services Indirectly Measured, is a SNA concept defined as total property income (interest) receivable by financial intermediaries less total interest payable, excluding interest receivable from the investment of own funds. FISIM, as a measure of the production of output, must be recorded as disposed of as intermediate consumption by corporations, final consumption by households, or exports to nonresidents. See SNA Paragraph 6.125.

they should be classified. This is an area that needs to be followed closely, and which could generate profound differences between accounting standards and SNA treatments.

- The IAS and JWG definitions of financial instrument include more contingent instruments than does the SNA "financial asset" definition; that is, the financial asset boundary is broader under the IAS and JWG than within the SNA.

- The IAS and JWG use comprehensive measures of income that incorporate valuation changes and changes in volume due to impairment not encompassed within the SNA concepts of income.

Conclusion

Contemporary accounting and supervisory work recognizes a strong need to handle changes in value due to impairment, either through application of fair value or provisioning. There is a case – not yet resolved – for treating an impairment related markdown as a volume change, especially if accruals are continued on the marked down asset. Treating impairment changes as volume changes, which has implications for the subsequent measurement of income on the instruments, differs from the SNA standards.

Also, a new definition of financial instrument may be emerging that extends beyond the SNA asset boundary. Individual components of financial instruments can be recognized or derecognized of balance sheets, effectively at fair value. This is important for macroprudential analysis, especially because the definition directly affects the measurement of numerators and denominators used in financial soundness indicators. There is a case for macroprudential and FSI work to take aboard the developing accounting and supervisory standards that encompass a more complete picture of the risks and rewards facing an enterprise.

In summary, there appears to be a fairly sharp divergence between the developing accounting and supervisory standards and the SNA in the treatments of impairment and provisioning, with important implications for valuation and income. The accounting and supervisory standards appear to be more closely attuned to the needs of macroprudential analysis and the compilation of FSIs. On the other hand, the SNA framework, which rests on a national residency foundation and provides comprehensive standards for classification of economic sectors and instruments, provides a systematic basis for placing FSIs within a macroeconomic context useful for analysis and policy purposes. The differences could provide the potential for fruitful cross-harmonization between the standards, involving the 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.

Appendix 1 – Examples of asset classification schemes

This appendix lists several examples of schemes to classify substandard assets. Each differs, but it is possible to identify several intrinsically different groups – (1) normal assets, (2) assets with some increased risk but with no clear indications of reduced receipts, (3) assets for which reduced receipts are likely or experienced, and (4) write-offs. In general, the classification schemes combine simple rules such as number of days payments are overdue, and general analysis of the condition of the financial instrument and the debtor.

Provisions can be assigned to the assets in each group. For example, under IAS specific provisions can range from zero at initiation for the best assets to full write-offs. Conversely, it is possible to assume that some credit risk exists for all assets and thus provisions should never be zero. In another alternative, reduction in the fair value of instruments in lieu of taking provisions should in concept begins with group 3 where the probability of reduced receipts become significant. There does not appear to be any consensus internationally on the strategy to pursue or the amount of provisioning within each group. As a practical matter, it should be possible in many cases to examine how many assets classified within each group ultimately default, which is referred to as migration analysis.

Institute of International Finance loan classification scheme

- *Standard*: Credit is sound and all principal and interest payments are current. Repayment difficulties are not foreseen under current circumstances and full repayment is expected.

- *Watch*: Asset subject to conditions that, if left uncorrected, could raise concerns about full repayment. These require more than normal attention by credit officers.

- *Substandard*: Full repayment is in doubt due to inadequate protection (e.g., obligor net worth or collateral) and/or interest or principal or both are more than 90 days overdue. These assets show underlying, well-defined weaknesses that could lead to probable loss if not corrected and risk becoming impaired assets.

- *Doubtful*: Assets for which collection/liquidation in full is determined by bank management to be improbable due to current conditions and/or interest or principal or both are overdue more than 180 days. Assets in this category are considered impaired, but are not yet considered total losses because some pending factors may strengthen the asset's quality (merger, new financing, or capital injection).

- *Loss*: An asset is downgraded to loss when management considers the facility to be virtually uncollectible and/or principal or interest or both are overdue more than one year.

Japanese Financial Supervisory Agency

- *Category I*: Assets with no problems in terms of collectability.
- *Category II*: Assets with higher collectability risk than normal because of difficulties in fulfilling contracted conditions, or due to concerns about the credit risk of the borrower. (15% provisioning required)
- *Category III*: Assets with concerns over final collection of value. Losses are likely to be incurred, but it is difficult to make estimates of the timing and scale of losses. (70% provisioning required)
- *Category IV*: Assets that are assessed as uncollectible or of no value.

U.S. Loan Classification System (Commercial Bank Examination Manual)

- *Standard assets*: Loans in this category are performing and have sound fundamentals. (Fundamentals include the borrower's overall financial condition, resources and cash flow, credit history, and character. They also include the purpose of the loan, and types of secondary sources of repayment).
- *Specially mentioned loans*: Loans in this category are performing, but have potential weaknesses which, if not corrected, may weaken the loan and the bank's asset quality. Examples are: credit that the lending officer is unable to properly supervise, an inadequate loan agreement, uncertainty of the condition of collateral, or other deviations from prudent lending practices.
- *Substandard loans*: Loans in this category have well-defined weaknesses, where the current sound worth and paying capacity of the borrower is not assured. Orderly repayment of debt is in jeopardy.
- *Doubtful loans*: Doubtful loans exhibit all the characteristics of substandard loans, with the added characteristics that collection in full is highly questionable and improbable. Classification of "loss" is deferred because of specific pending factors which may strengthen the asset. Such factors include merger, acquisition, or liquidation procedures, capital injection, perfecting liens on additional collateral, and refinancing plans.
- *Loss loans*: are considered uncollectible and of such little value that their continuance as bankable assets is not warranted. This classification does not mean that the asset has absolutely no recovery or salvage value, but rather that it is not practical or desirable to defer full provision or writing off this basically worthless loan. Partial recovery may be effected in the future.

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