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Towards a better SDDS

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Towards a better SDDS

The IMF's SDDS is a good idea, but poorly executed argue Steve Hanke and Matt Sekerke. The authors suggest an alternative accounting standard for central banks.

A necessary condition for transparency in central banking is a uniform accountancy standard for the presentation of on- and off-balance sheet information. At present, there is no such standard for central banks. This shortcoming explains, in part, why the state of central bank finances remains obscure[1].

The SDDS emerges

The International Monetary Fund's Special Data Dissemination Standard (SDDS), with 53 IMF member subscribers, has emerged as an interim standard for central bank reporting. The SDDS was created in March 1996, with a transition period through the end of 1998, "to guide countries that have or seek access to international financial markets in the dissemination of economic and financial data to the public.[2]" The central bank balance sheet is the centrepiece of central bank reporting within the SDDS.

On March 23 1999, the data template on international reserves and foreign currency liquidity (hereafter referred to as the IRFCL template) was added to the SDDS. The IRFCL template was a response to the BIS Euro-currency Standing Committee's conclusions that a better statement of central banks' foreign currency liquidity position was "crucial" and that "the main shortcomings [in central bank reporting] relate to the disclosure of potential drains associated with foreign currency liabilities and derivative instruments." In particular, the committee found there was "a general lack of public information about off-balance sheet positions" which created the potential for a central bank to overstate its available foreign

1 For a survey of the state of central bank reporting, see Hanke and Sekerke (2002).

2 From the IMF's Fourth Review of the Fund's Data Standards' Initiatives, July 23 2001, p8. The document is available at http://www.imf.org/external/np/sta/dsbb/2001/071001.pdf. Forty-two IMF members subscribed in 1996, but growth in membership has been slow since then.

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reserves (Bank for International Settlements, 1998: 2, 4). Therefore, the primary purposes of the IRFCL template are to capture the off-balance sheet components of central bank and government finances and provide more detail on the liquid, unencumbered resources available to each.

In recent years the Fund has played a major role in advancing the goal of an accounting standard for monetary authorities. Our analysis of the key issues in central bank reporting (Hanke and Sekerke, 2003) demonstrates that the central banking components of the SDDS fall far short of qualifying as an adequate standard, however.

Accounting standards count

The seemingly banal details of central bank accounting have serious repercussions. The Fund's failure to give adequate thought to the design of its reporting standards allows central banks that use them to maintain a pretence of transparency. It also undermines the Fund's own goal of transparency. For example, Fund reporting standards have not proven to be useful conventions in the monetary conditionality of Fund lending programmes. Indeed, the definitions contained in the Fund's lending programs don't comport with those of its reporting standards. Instead of using SDDS conventions, the definitions of monetary variables in Fund programmes are a muddle of impenetrable bureaucratic mumbo-jumbo. Consequently, it is impossible to use central bank disclosures within the SDDS to determine whether borrowing countries are meeting the monetary conditionality contained in their loan arrangements. How can an IMF lending program be transparent when only the Fund has enough information to conclude whether the conditions enumerated in the agreement have been met?

Moreover, by doing an incomplete job of eliciting pertinent information from central banks through the SDDS, the Fund has allowed a great deal of unnecessary uncertainty to remain a part of international financial transactions, especially in the currency and bond markets. Speculative attacks still follow on the heels of rumours and fears that could be quelled with a few reliable pieces of information, and countries continue to pay the higher risk premia associated with opacity.

SDDS requirements for central banks

The SDDS covers a number of macroeconomic data categories; the accounts of the central bank are one component. The Fund integrates into the SDDS a rubric for the central bank balance sheet that is similar to that used in its *International Financial Statistics*. Prescribed components of the balance sheet include monetary liabilities (alternatively known as base money, reserve money or the monetary base), domestic assets, and foreign assets. Domestic and foreign assets may be reported on either a gross or net basis, and domestic assets should be broken down by sector (either public / private or government / non-financial public / private)[3].

The IRFCL template supplements the central bank balance sheet with information on foreign currency liquidity and off-balance sheet activities[4].

3 The official specifications given by the IMF at http: / / dsbb.imf.org / category / spec_fin.htm are "reserve money, base money, or the monetary base; domestic credit, broken down by general government / non-financial public enterprises / private sector or public sector / private sector; and the external position of the central bank on either a gross or a net basis."

4 The particulars on the IRFCL template may be found in Kester (2001).

The template also recognises the grey area between the obligations of the central bank and the government by requiring disclosure of information from both. However, only a select few countries such as the United Kingdom and Italy separate the accounts.

Section I of the IRFCL template details the foreign currency liquidity position of the authorities, breaking foreign reserve assets into cash, deposits in banks headquartered domestically and abroad, foreign-currency denominated securities, gold (and gold swapped), derivative assets, and other assets. All magnitudes are stated in US dollars at current exchange rates to facilitate international comparability and remove distortions from fluctuations of the domestic currency against foreign reserve currencies (valuation effects).

Section II deals with predetermined net drains on foreign currency assets occurring within one year. These include flows related to principal and interest amortisations on foreign-currency denominated loans and scheduled deliveries of foreign currencies arising from foreign exchange forwards, futures and swaps contracts[5]. Notional values, determined by the strike price, are recorded.

Foreign currency options and other contingent commitments are covered in Section III. Potential assets and liabilities such as undrawn credit lines (especially with the Fund and BIS, among others) and exchange rate guarantees are reported separately from securities with embedded options and possible flows related to options positions. Options are classified by long and short positions, calls and puts, and options written and options bought. Contingencies related to social security are excluded from Section III. Section IV includes several useful memorandum items such as the net, marked-to-market values of derivatives, derivatives with a residual maturity of more than one year subject to margin calls, securities borrowed or lent on repurchase agreements, aggregated short and long options positions marked-to-market, and the currency composition of reserves.

It is important that data for on- and off-balance sheet activities remain current. To that end, the SDDS program includes requirements for the frequency (the intervals – such as weeks or months – at which financial variables are disclosed) and timeliness (the delay between the end of an accounting period and the release of the data for that period) of disclosures. Balance sheet data are to be reported monthly with less than two weeks' lag, and off-balance sheet and foreign currency liquidity data are to be reported monthly with less than one month's lag.

Problems with the SDDS

Far from being a tool for sweeping aside uncertainty and lubricating the international markets, the central banking component of the SDDS is confusing, poorly organised and incomplete. A number of gross omissions and oversights make a meaningful evaluation of central bank policy based on information disclosed in the SDDS almost impossible.

5 These drains may be the result of contracts with both residents (individuals or entities residing or headquartered in the reporting country) and nonresidents.

Little detail required

The SDDS's prescriptions for balance sheet presentation require little detail on net domestic assets and net foreign assets. The composition of domestic assets is of interest because it allows conclusions to be drawn about the nature and riskiness of the central bank's operations. For example, an increase in net domestic assets driven by the public sector could be an increase in credit to state enterprises, the monetisation of government debt obligations, or the result of the government transferring its deposits from the central bank to commercial banks. Unless these operations are disaggregated, the data, as they are currently presented, can be misleading. Similarly, to detect the composition of net foreign assets requires making reference to a separate document (the IRFCL template) which, as we will see later, includes no detail on asset quality, maturity, or currency composition.

More importantly, the SDDS contains no explicit requirement to report domestic credit and the external position on a net basis. Without those data, the decomposition of base money into its foreign and domestic components – arguably the most fundamental diagnosis of monetary operations – cannot be performed. This decomposition is necessary to detect any neutralisation of foreign exchange flows by the central bank, a harbinger of balance-of-payments disequlibria and currency crises (Hanke, 2000).

Surprisingly, time series data on the required categories are not made available. New releases are compared only to the previous period, and the retention and presentation of old data is left to the discretion of each central bank. Without these previous results for reference, the direction and magnitude of long-term flows cannot be determined, leaving whatever information is presented – however detailed – without a point of reference and largely useless.

No dates on reserves

The IRFCL template lacks information on the maturity structure of foreign currency assets. As the magnitude of foreign reserves held by central banks has increased, a greater amount has been invested in securities – particularly securities with longer maturities – in order to increase return[6]. Securities that cannot be realised quickly at face value lack liquidity and cannot be considered available for payments or intervention. Thus to avoid overstating the reserves that are available, SDDS subscribers are to revalue securities in the reserve portfolio at market prices on at least a quarterly basis. However, the procedures used and frequency with which subscribers revalue their portfolios vary widely and are not necessarily disclosed. It

6 More aggressive investment of foreign reserves by central banks may also be attributed to the preference of many central banks, especially in developing economies, to build up large "excess" reserves. In the wake of recent crises central banks have sought in this way to deter a speculative attack on their currency. Central banks demand a return on their foreign currency assets because governments demand compensation for the opportunity cost of greater foreign reserve holdings at the central bank. The excess foreign reserves accumulated by the central bank could be used to reduce other government obligations, and should arguably be remitted to the fiscal authorities. However, if the central bank earns a return on those foreign reserves which is greater than or equal to the fiscal authorities' borrowing cost, the consolidated government sector (consisting of the aggregated accounts of the central bank and the fiscal authorities) profits and the fiscal authority consents to greater foreign reserve holdings at the central bank.

would be simpler to break the security portfolio up by term-structure to eliminate any ambiguity about the reserve portfolio's liquidity created by potentially arcane revaluation procedures.

Knowledge of the reserve portfolio's currency composition is necessary to understand which currencies are the sources of exchange rate risk to the portfolio. The IRFCL template suggests disclosing composition only once a year; even then, the distinction is made only between currencies in the SDR basket and those not in the basket[7].

Who owns what? Most SDDS member countries fail to make clear the ownership of foreign assets. While ownership is supposed to be explained either by separation of accounts or in the SDDS metadata (the explanation of statistical definitions and procedures provided by participating countries to the IMF), the publication of metadata is neither consistent nor universal. The line of demarcation between foreign assets available to the central bank and those available to the finance ministry must be made absolutely clear, especially if the central bank is to be considered independent from the fiscal authorities. The central bank's foreign assets may be held in the custody of the finance ministry, as is the case with the United States Treasury's exchange stabilisation fund (Lee, 1998: 157). Conversely, foreign assets may be strictly the property of the central bank. The Banco Central de la República Argentina under the "convertibility" system, a prime example, was not banker to the government and its foreign reserves were not available to the distressed finance ministry for debt service.

As a final remark on the reserve portfolio, not enough has been done to make clear the quality of various reserve assets. A category such as "foreign-currency denominated securities" lumps US Treasury bills together with securities issued by entities with less certain creditworthiness. A threshold level for the credit rating of security issuers may be adopted as a means by which central banks can disclose the quality of their foreign reserve assets. However, strictly disqualifying claims on riskier issuers is a question of reserve management policy that should be addressed individually by central banks and not by an accounting standard.

Derivative risks opaque Greater care must be used for reporting derivatives. Central bank practises suggest that straightforward derivatives contracts such as futures, forwards, swaps and occasionally options on foreign exchange (foreign exchange derivatives) and interest rates are the most widely used products and, therefore, those deserving of the most attention (Rigaudy, 2000). But even these basic contracts are given little consideration in the IRFCL template.

Under IRFCL conventions, derivatives carrying any level of risk and used by the central bank for any purpose are lumped together as a single aggregate in Section II. This unwieldy number is to be unbundled into

7 We know from IMF and BIS data that, in the aggregate, the majority of foreign reserves are denominated in US dollars and that the majority of derivative contracts in foreign exchange have the dollar on one side. This, however, does not preclude the possibility of a monetary authority choosing to allocate its reserves to, say, mostly euros in the event that its country trades mostly with the euro area or because it anticipates a greater international role for the euro in the future.

smaller categories (eg, net values of foreign exchange swaps, futures, etc.) in Section IV, but central banks have been reluctant to take this additional step. Enforcement by the Fund should have a role here, but the watchdogs are sitting on their paws. No SDDS subscriber has been deemed noncompliant for failing to make this disclosure. Accordingly, the various risks incurred by the central bank when using different derivative products remain beneath the surface of a single opaque number.

A mixed bundle

To illustrate, consider the difference between foreign exchange forwards, non-deliverable forwards, and futures. All three instruments require an exchange of currencies at a predetermined exchange rate and settlement date. However, the counterparty risk incurred under each contract is quite different. In a foreign exchange forward, the gross amounts must be delivered at settlement in cash by each counterparty, which may create complications if either party faces a dearth of unencumbered funds. Non-deliverable forwards mitigate this risk by only requiring one party to deliver the difference between the obligations of the short and the long in cash. Futures contracts settle through a clearinghouse which assumes the counterparty risk of the participants in return for a required margin deposit. It follows from this consideration of several echelons of risk that a classification of derivatives according to the type of contract is too important to ignore.

It is just as important to consider the currencies involved in various derivatives contracts. Without some indication of which exchange rates pose currency risk to the central bank portfolio, the consequences of movements in those exchange rates for the portfolio cannot be anticipated.

Concerning valuation, the template captures a rather useless set of values. Instead of marking the value of derivatives contracts to the market, Section II records the aggregated notional values of foreign exchange derivatives. The entire portfolio is to be marked to market in Section IV, but again, disclosures are rare and enforcement is absent. Since derivatives will only be realised at market values, it is hard to see why the notional values should be of any interest.

No reasons behind the risk

The ambiguity surrounding central bank's use of derivatives is further compounded by the IRFCL template's failure to make a distinction between derivatives that are used for risk management and those that are used for foreign exchange market intervention, investment[8] and monetary policy applications. An analyst has no idea, therefore, whether the central bank's interest in derivatives – assuming anything at all is disclosed – is motivated by a relatively low-risk prudential strategy or a relatively high-risk strategy, such as the defense of a pegged exchange rate. While some private sector efforts to identify derivatives used specifically for hedging (such as Financial Accounting Standard 133) have created problems for management, some means of making the distinction between risk management and monetary policy uses of derivatives should be employed.

8 While investment in financial derivatives is certainly possible, no central banks participating in Neely's (2001) survey on derivative use acknowledged using derivatives purely as investments – ie, for "speculative" purposes.

To avoid the burdensome and distorting influences of complying with a FAS 133-type disclosure procedure, a low-cost approach for disclosing information about derivatives – without distorting management decisions concerning the use of derivatives – must be employed. This can be accomplished by supplementing a qualitative assessment of portfolio-level derivative use with market prices for the instruments contained therein, published as a memorandum item.

Ignorance provokes speculation

The SDDS provides for no qualitative details, leaving financial statement users with a mostly incomplete view of the central bank's policy in using derivatives. And just as incomplete information has spurred bank runs and panics throughout history (Davis, 1995: 314), it will leave currencies prone to speculative attack. Although a primary objective of the SDDS was to inspire confidence in the markets that no sudden revelations of losses or complications would rear their ugly heads, it is obvious that current SDDS practice still allows a number of demons to haunt the infrastructure of international commerce.

A final word on derivatives concerns options, by far the most complex of the basic derivative products. While foreign exchange options are not widely used by central banks, a reporting template must nevertheless contemplate the problems posed by real or potential uses of these instruments. Options are particularly noteworthy because their fair value may fluctuate considerably in short periods of time. Therefore, certain events may suddenly thrust a central bank into the uncomfortable position of being a writer of "in-the-money" options which, if exercised, will necessitate significant foreign currency outflows. Two precautions against such a debacle included in the IRFCL template are marking options contracts to market and stress-testing the portfolio[9]. These are good practises, but neither is currently satisfactory. An accurate treatment of options requires a frequency of reporting that approaches real time[10]. And the stress test is opaque because the particular currencies that pose exchange risk to the portfolio are unknown.

Central bank law missing

Legal and regulatory information are completely absent. Surprisingly, the SDDS has completely neglected the legal dimension of central bank disclosures. Because the legal framework of the central bank defines the scope and scale of its direct and contingent commitments, it offers a

9 The IRFCL template includes five simple stress tests for the options portfolio, which simulate 0, 5 and 10% appreciations of the domestic currency against all foreign currencies.

10 Because option values can be difficult to calculate, a transparent central bank will be limited to contracts involving assets for which historical market price inputs are readily available. It is critical for the central bank to specify the inputs used for its options valuations. This requirement may well disqualify many options contracts from acceptable use, but they will ensure that the reported values are independently observable and that they represent accurately the central bank's contingent position. Such "fair value"-oriented accounting concerns are not limited to options and may apply to any number of derivative contracts. Indeed, Neu (2001) notes that "[a] transparent market may not exist to price the [derivative] assets/liabilities readily, for example; or if one does exist, it may be sufficiently volatile to erode the meaning of any intermittent snapshot."

perspective from which the analyst can begin to evaluate the data reported on- and off-balance sheet. No reporting standard is complete without legal and regulatory disclosures.

The law on the central bank contains the statutory objectives ot the central bank as well as the constraints imposed on its actions. Knowledge of these objectives and constraints allows an analyst to anticipate the extent to which the central bank will be affected by developments in the balance sheets of the banking and government sectors. Indeed, analysis of how the law on the central bank circumscribes the central bank's relations with the government has formed the core of the conventional notion of central bank independence (see, for example, Cukierman, 1992). Similarly, the law on the central bank often sets the terms of lending to the banking system.

When it is charged with regulating the banking system, the central bank's relationship with banks is modified at its own discretion. These modifications are contained in the regulations issued by the central bank, and constitute a powerful instrument of monetary control. In countries with poorly-developed debt markets, changes in the reserve requirement are the most potent weapon in the central bank's arsenal for managing base money. Other regulations adjust the definition of appropriate collateral for rediscounts and overdrafts. These adjustments in turn change the central bank's scope for base money expansion via loans to the banking sector. Deposit guarantees administered by the central bank are governed by regulations, which are of interest because they determine the degree to which the central bank must recognise potentially insolvent banks as a contingent liability (Chandavarkar, 1996: 183). And if the central bank resorts to direct methods of monetary control – including interest rate controls, credit ceilings, rediscount quotas, statutory liquidity ratios, selective credit controls, and moral suasion (Chandavarkar, 1996: 30) – they will be discovered not in balance sheet data, but in the regulations.

What a standard should have

Our discussion above demonstrates that the following additional disclosures should be required of central banks:

- relevant legal and regulatory information;
- historical time series data on the balance sheet;
- the on-balance sheet external position and domestic credit on a net basis;
- more detailed treatment of net domestic assets;
- the term structure, credit rating and currency composition of foreign reserve assets;
- the foreign reserve assets available to the central bank and the fiscal authorities;
- marked-to-market values for derivatives;
- classification of foreign exchange derivatives by instrument;
- classification of foreign exchange derivatives by currency; and
- a qualitative discussion of how derivatives are used by the central bank – if at all – to manage risk and achieve other policy results.

As a final recommendation, we note that the frequency of reporting should approach real time. The information technology already exists to put this recommendation into practice; we contend that it is an investment worth making.

We have developed a new reporting template (Appendix I) to be incorporated into the SDDS which corrects the major problems found in the current central bank reporting requirements. We cannot claim that our proposed template is exhaustive and definitive, however. Central banks and their policies are too numerous and varied for such a claim to be credible. Indeed, there are probably gaps, albeit small ones, which would remain open in any accountancy standard. Not least among these are rigorous definitions of the concepts subsumed under each category and the recognition and valuation procedures to be applied when recording data. That said, some more fundamental problems in central bank reporting still remain, which we will discuss later. First, we will describe the most salient features of our redesigned template.

The transparency dividend

The template amalgamates the information contained in the IRFCL template with that found on the central bank balance sheet. With the addition of an area for the disclosure of relevant legal and regulatory information, all information is now available in a single document. The IRFCL template classifications for foreign reserve assets have been supplemented with information on maturity that lines up with the maturity structure of foreign liabilities on the other side of the balance sheet. Foreign assets and liabilities belonging to the central bank and the government are distinctly separated to make clear the obligations falling on each and the resources available to each. Consequently, the net external position of the central bank will be unquestionable and foreign creditors will be able to assess better the country's capacity for meeting current and future debt payments. Since creditors will no longer demand a premium for opacity, countries implementing this reporting format can expect to see borrowing costs decline[11]. In addition, markets will better be able to anticipate looming balance-of-payments crises, hastening a return in the direction of equilibrium. IMF programs will also be able to make use of the definitions and disclosures on the template for the purposes of establishing and monitoring conditionality, bringing more transparency to the Fund lending process.

Derivatives: the full picture

We have opted for an off-balance sheet recording of derivatives supplemented by qualitative disclosures. In doing so, we have noted the difficulties encountered in the private sector in implementing Financial Accounting Standard 133, Accounting for Certain Derivative Instruments and Certain Hedging Activities (FAS 133). Under FAS 133, firms are to determine whether derivatives qualify as hedges and recognise them on the balance sheet and income statement accordingly. The rationale was that changes in the fair value of the derivatives would be immediately

11 A recent survey conducted by PricewaterhouseCoopers found that debt issued by countries that lacked transparency paid a risk premium of up to 1316 basis points higher than Singapore and the United States, countries with relatively high transparency ratings (Barth, et al., 2001).

manifested in the financial statements, eliminating any surprises created upon settlement of the derivative transaction. However, FAS 133 proved costly to implement (in terms of human and financial resources), increased earnings volatility (suggesting mismanagement) and discouraged firms from using certain types of legitimate risk management techniques. Consequently, we believe it is best for central banks to indicate, on a qualitative basis, how derivatives are used – and have been used in the past – to manage risk to the portfolio and to achieve other policy goals. Whenever possible, the market values of the derivative instruments employed should be recorded as memoranda off the balance sheet, to follow the spirit of full disclosure at a reduced cost of implementation. To that end, we encourage classification of the instruments used by the type of contract, the currencies or interest rates involved, and the duration of the contract. Both notional and market values, as well as the strike price, should be available for comparison.

Domestic assets are treated with more detail than before, and a presentation of the domestic liabilities of the central bank guarantees that the net domestic asset position can be observed, rather than the gross position[12]. Foreign exchange swaps with resident banks are now considered a domestic asset, since they are best described as two collateralised loans between the banking system and the central bank. Reporting foreign exchange swaps this way discourages the convention used by many central banks of recognising foreign exchange received in one leg of the swap as an addition to foreign assets and banishing the corresponding future liability from the balance sheet.

Central bank income statement

We have augmented the net worth section of the balance sheet to become a brief income statement for the monetary authority. The decapitalising losses that characterise fiscal abuse of the central bank (see for example, Beckerman, 1997 and Mackenzie and Stella, 1996) will therefore become immediately obvious. Including realised and unrealised foreign exchange gains and losses also solves the problems associated with valuation effects created when foreign assets and liabilities are reported in the domestic currency[13].

A section on contingent liabilities recognises potential cash flows resulting from guarantees granted to creditors, the government, depositors, and the banking sector. Not all such guarantees will be quantified easily, and some contingencies will, of course, remain unknown. Contingent credit lines available to the central bank are also listed to reflect the resources the central bank could summon in a crunch.

12 Recall that the central bank balance sheet does not have to contain net values for domestic assets or the external position under SDDS guidelines. Perhaps the fact that the balance sheet need not balance should have been the first signal that something was awry with the central bank component of the SDDS. The classification and valuation of net domestic assets is an area which is blurred by the quasi-fiscal nature of domestic assets and liabilities, as well as by the considerable variety of domestic credit policies employed by the world's central banks. There remains much work to be done before net domestic assets can be evaluated at a level of detail comparable to that which is applied to foreign reserve assets.

13 For a discussion, see Kurtzig (2001).

Finally, appropriate legal information should be linked to the reporting template in section E. The legal framework of the central bank provides the perspective needed to let the numbers talk and is indispensable for any serious analysis to take place.

Remaining obstacles

Although we are confident we have addressed most problems of central bank reporting in this template, we have not yet gotten to the bottom. Some fundamental reforms must be made in other areas before central bank accounts can be considered a truly accurate reflection of central bank operations.

As we alluded to before, a number of contingent commitments are not explicitly priced by the central bank for the purpose of disclosure. A qualitative summary of such commitments would be a reasonable starting point on these matters. Further steps might include explicit valuations using assumptions about the key variables and/or market prices and quantity inputs. Unknown contingencies cannot be measured, but a number of stress tests could be applied to the portfolio to simulate the effects of unanticipated contingencies of various magnitudes. Because of the structure of debt markets and liquidity problems in some derivatives markets, market prices for certain claims are simply not available. Consequently, any valuation that is assigned to such a claim is somewhat arbitrary. Central banks should disclose the methods, assumptions and market price inputs used to value claims for which no true market exists.

Show the national hand

Finally, fiscal accounting must be brought up to speed. In the big picture, the central bank's accounts are only a subset of the general government accounts. Various fiscal roles played by the central bank blur the line that divides the finance ministry from the central bank. In order to evaluate properly the net government position, fiscal and central bank accounts must be consolidated. A less obvious reason that improved fiscal accounting is needed is that the path of government deficits over time influences monetary policy (Sargent and Wallace, 1981). Because deficits that cannot be financed with debt must be financed by currency emission, the central bank's money supply policy will be determined, in extreme cases, by the fiscal balance. Accordingly, an evaluation of central bank policies also requires fiscal accounts.

When they even do exist, the financial statements of governments face all the problems of central banks' accounts and more. Much work remains to be done. An important first step, however, is for central banks to adopt the rigorous reporting standard we have sketched here. □

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Appendix I: a sketch of a new reporting template for the SDDS (in the domestic currency)

A. Assets

Foreign currency assets

Securities

	Belonging to the central bank	Belonging to the fiscal authorities
Less than one month to maturity		
One to three months to maturity		
Three to six months to maturity		
Six to twelve months to maturity		
More than one year to maturity		

Foreign currencies on deposit

With other monetary authorities, IMF and BIS
With domestically-headquartered banks
With foreign-headquartered banks
Of which located in the reporting country

IMF reserve position and SDRs

Gold

Of which gold swapped

Other foreign currency reserve assets

Domestic assets

Rediscount and overdrafts to banks

Of which foreign exchange swaps with resident banks

Government securities (all levels)

Unsecuritised loans to the government (all levels)

Loans to the non-financial public sector

Other domestic assets (describe)

B. Liabilities

Foreign currency liabilities

Debt amortisations

	To be funded by the central bank	To be funded by the fiscal authorities
Due in less than one month		
Due in one to three months		
Due in three to six months		
Due in six to twelve months		
Due in more than one year		

Local currency deposits of the government

Other domestic liabilities

Monetary base

Currency in circulation
Bank deposits for reserve requirements **and/or clearing accounts**
Excess reserves of the banking system

C. Net Worth

Original net worth

Accrued interest receivable
Realised foreign exchange gains/losses
Less accrued interest payable

Net operating income, accrual basis

Unrealised foreign exchange gains/losses
Less profit remitted to the fiscal authorities

Current net worth

D. Off-balance sheet items

Summary of derivatives use by the central bank (qualitative)

Memoranda

Net, marked-to-market value of foreign exchange and interest-rate derivatives (list below – indicate whether the central bank or the fiscal authority is the counterparty in the transaction)

Type of instrument	*Currencies or interest rates involved (specify short/long)*	*Date of initiation*	*Settlement date*	*Notional value and strike price*	*Current market value*
			Totals (net):		

Foreign exchange options (list below – indicate whether the central bank or the fiscal authority is the counterparty in the transaction)

European or American	*Currencies involved (indicate short/long)*	*Date of initiation*	*Exercise date*	*Notional value and strike price*	*Current market value*

Interest rate options

European or American	*Interest rates involved (indicate short/long)*	*Date of initiation*	*Exercise date*	*Notional value and strike price*	*Current market value*

Contingent liabilities (qualitative or quantitative summary)

Embedded and Implicit Options

Guarantees extended to creditors
Guarantees extended to the government
Guarantees extended to depositors

Contingent commitments to the banking sector

Contingent Credit Lines

E. Legal information

Law on the central bank

Regulations governing the banking sector

F. Memorandum items

Assumptions made and inputs used for valuing assets and liabilities without market prices

Low-grade securities included in foreign asset portfolio

Currency composition of foreign asset portfolio (as percentage of total reserves)

	Foreign assets of the central bank	Foreign assets of the fiscal authorities
United States dollars Euros Japanese yen		

Currency composition of foreign currency liabilities (as percentage of total reserves)

	Foreign liabilities of the central bank	Foreign liabilities of the fiscal authorities
United States dollars Euros Japanese yen		