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Fiscal Accounting of Bank Restructuring

Prepared by James A. Daniel, Jeffrey M. Davis, and Andrew M. Wolfe¹

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Abstract

Current guidelines and practice for classifying government bank assistance operations inadequately capture in the fiscal balance some of the most common, and important, operations. The shortcomings result from the focus on the general government, the exclusion of non-cash operations, and divergences between the timing of cash outlays and the economic impact of assistance operations. Complementing the standard measures of the fiscal balance with an “augmented” balance would provide a definition that is transparent, comprehensive, and reasonably comparable across countries. The augmented balance would explicitly incorporate the major *quantifiable* fiscal costs of bank assistance operations that are not already included in current definitions of the overall balance.

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Authors' E-Mail Address: JDaniel@imf.org, JDavis@imf.org, and AWolfe@imf.org

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FISCAL ACCOUNTING OF BANK RESTRUCTURING

Government involvement in the financial restructuring of banks can have substantial macroeconomic, especially fiscal, implications.² To facilitate effective policy formulation and good governance, these implications should be recorded transparently in the fiscal accounts and consistently across countries. This paper reviews the problems in current practice and puts forward a solution.

I. CURRENT PRACTICE AND ISSUES

Current guidelines for classifying government bank assistance are founded on the use of the cash-based balance of the general government as described in Government Financial Statistics (GFS).³ Under this system, the fiscal balance is affected by financial assistance that involves either cash transfers from the general government (e.g., subsidies to banks), or lending minus repayments (e.g., loans or exchange of cash or bonds for bank assets) by the general government to financial institutions. This standard (GFS-based) system, however, inadequately captures in the fiscal balance some of the most common, and important, bank assistance operations.⁴ Consequently, current Fund practices have often differed from GFS guidelines. The varieties of assistance operations and their divergent classification for a sample of countries are presented in Table 1.

²See Daniel (1997).

³See IMF (1986).

⁴While GFS excludes such operations from determining the fiscal balance, it provides for their recording as memorandum items.

Table 1. Major Methods of Government Assistance in Resolving Banking Problems

| Method | Country and date | Budgetary classification |
|---|---|--|
| <i>Direct methods</i> | | |
| 1. Recapitalization | | |
| A. Equity injection | | |
| Cash | 1. Egypt (1991) 2. Finland (1991-94) 3. Mauritania (1993) 4. Philippines (1986) 5. Tanzania (1995) | 1. Expenditure, capital. 2. Bank of Finland purchases not recorded. 3. Expenditure, "restructuring and net lending." 4. Expenditure, "equity and net lending." 5. Expenditure, "development expenditure and net lending." |
| Long-term loan | 1. Argentina (1994-95) 2. Azerbaijan (1995) 3. Finland (1991) | 1. Not recorded in expenditure. 2. Expenditure, net lending. 3. Expenditure, "financial investment." |
| B. Bond transfer | | |
| Exchange for bad loans | 1. Ghana (1990) 2. Hungary (1992-93) 3. Lao P.D.R. (1993) 4. Sri Lanka (1993) 5. Kuwait (1992) 6. Tanzania (1992-95) | Principal excluded from expenditure, interest included. |
| Unrequited | 1. Chile (1984) 2. Ghana (1990) 3. Hungary (1992-94) 4. Latvia (1994) 5. Poland (1993-1994) | 1. Neither interest nor principal recorded in expenditure. 2. Principal excluded from expenditure, interest included. 3. Principal excluded from expenditure, interest included. 4. Principal excluded from expenditure, interest included. 5. Principal excluded from expenditure, interest included. |
| C. Assumption of (net) liabilities | 1. Argentina (1994-95) 2. Chile (1983) 3. Finland (1991) 4. Latvia (1995) 5. Mauritania (1986) 6. Philippines (1986) | 1. Loan repayment operations excluded from expenditure. 2. Not included in expenditure. 3. Takeover of bank not recorded in budget, nor later Bank of Finland capital injections. 4. Compensation to depositors classified as expenditure. 5. All cash and debt components included in expenditure, "Restructuring and net lending." Write off of Treasury claims (uncashed checks) recorded as negative revenue. 6. Only interest on debt recorded in expenditure. |
| 2. Short/medium-term loans | | |
| Standard loan | 1. Argentina (1994-95) 2. Chile (1982-83) 3. Latvia (1993) 4. Mauritania (1993) 5. Philippines (1986) | 1. Quasi-fiscal lending by central bank included in expenditure. 2. Excluded from expenditure. 3. Excluded from expenditure. 4. Bank debt to central bank assumed by government in expenditure. 5. Operating position of central bank included in fiscal accounts. |
| Placement of deposits | Lithuania (1995) | Excluded from expenditure. |
| <i>Indirect methods</i> | | |
| Tax breaks and lowering regulatory requirements | Argentina (1994-95) | Not included in the budget. |
| Assumption of enterprise debt | 1. Azerbaijan (1995) 2. Moldova (1994) | 1. Expenditure, net lending. 2. Expenditure, net lending. |
| Equity conversion of non-budget public deposits/claims | Kenya (1986-89) | Excluded from expenditure. |
| Loans or transfers to enterprises to allow servicing/repayment of bank debt | 1. Hungary (1987) 2. Philippines (1986) | 1. Excluded from expenditure. 2. Expenditure, lending or subsidy expenditure. |

Source: IMF documents.

The shortcomings in current guidelines result from the focus on the general government, the exclusion of non-cash operations, and divergences between the timing of cash outlays and the economic impact of assistance operations.

Quasi-fiscal operations are often used by governments that do not want to assist financial institutions directly through the general government budget. When banking problems initially appear, the central bank usually extends credit to troubled banks. Assistance, generally extension of directed and/or subsidized credit can also be provided by other public institutions and agencies (e.g., deposit insurance funds).

Yet while the macroeconomic impact of such operations is largely independent of which branch of the public sector implements them, only those operations carried out by the general government affect the present standard GFS measure of the fiscal balance. The types of quasi-fiscal operations that are common in systemic bank restructuring have either been entirely excluded from government budgets or their inclusion has only come indirectly through the incorporation of the net operating income of the central bank (or exceptionally, other public banks).

Non-cash operations: several restructuring operations with similar aggregate demand effects and public policy motivations have been treated differently in the fiscal accounts due to the cash/non-cash criterion. For example, recapitalization via the unrequited issuance of public debt to troubled banks (one of the most common forms of bank assistance) only affects the

standard fiscal balance through interest payments, not the principal, even if the bank immediately sells the debt. If the government had floated the debt and transferred the proceeds, this would have been classified as expenditure. Current practice for the countries surveyed tends to follow this cash/non-cash criterion, (although Mauritania, by fully recording all non-cash bank assistance operations in the budget, is an exception). Thus, Egypt's fiscal balance deteriorated by 6 percent of GDP in 1991 as the bank assistance involved a cash injection financed by selling long-term debt, whereas that of Hungary was unaffected by the principal of negotiable public debt issued to banks equivalent to 9 percent of GDP between 1993 and 1994.

Similarly, other bank assistance operations may not be recorded at all under current practice due to their similarity with portfolio decisions. Two examples are the shifting of government deposits from sound to troubled banks (e.g., Lithuania, 1995) and the conversion of a bank's obligation to the government into equity (or a longer-term obligation). Both, however, may reflect the purposes of public policy and not the objective of maximizing returns from the government's portfolio or facilitating treasury operations.

Timing of impact: when divergences arise between the time of the economic impact and the cash outlay of bank assistance, the cash-based standard fiscal balance does not fully reflect the government's impact on the economy. Such divergences could arise in two situations relating to bank restructuring:

- Banking problems may result from years of prior policy actions, such as directed credit, and only later, when the economic effects have occurred, is there any impact recorded in the budget. Any resulting recapitalization would then represent recognition of accumulated past quasi-fiscal operations. The government's impact on the economy would thus have been understated previously and overstated when any assistance occurs (if the assistance affected the measured fiscal balance).
- Some bank assistance operations do not involve cash outlays when implemented but may lead to future outlays. Such future outlays may be fully known because their extent and the government's obligation are certain (e.g., assumption of a bank's liabilities). Alternatively, they may be contingent, either because the eventual quantity is unknown (e.g., deposit guarantees) or the government's obligation is not specified (e.g., an insolvent bank that would likely not be allowed to fail). Under current practice, these operations would only affect the fiscal balance when, or if, any cash payments by the general government were made; whereas public sector net worth and the government's role in the economy would be affected when the operation was implemented.

II. AN AUGMENTED MEASURE OF THE FISCAL BALANCE

The fundamental aim of any definition of the fiscal balance is to provide a *transparent* and *comprehensive* measure of the impact of fiscal policy that is reasonably comparable across countries. In this respect there is a need to strengthen current practices in accounting for the

fiscal impact of bank assistance operations. Rather than undertaking a piecemeal revision of current, GFS-based, practices, which have important merits from the perspective of monetary consistency and established understanding and usage, it is recommended that they be complemented with an “augmented balance” concept. The augmented balance would explicitly incorporate the major *quantifiable* fiscal costs of bank assistance operations that are not already included in current definitions of the overall balance. These costs would be included in a separate category of the augmented balance, entitled “bank assistance measures,” which would be added to the standard overall balance.⁵ The augmented balance would not replace the overall balance, but would be used alongside this, and other, measures of the fiscal stance for countries where bank assistance operations are important. Presentation of the augmented balance would, however, provide a transparent basis for considering the aggregate demand effects of particular restructuring instruments and assessing the need for offsetting action.⁶ Table 2 summarizes the suggested treatment of some common bank assistance operations within this augmented balance.⁷

An alternative approach would be to extend the current GFS-based measure of the fiscal balance to include some of the major costs of bank assistance operations in the

⁵To preserve continuity, existing bank restructuring programs could include under “bank assistance measures” only those costs not already encompassed within the overall balance.

⁶Daniel (1997), provides an analytical basis for assessing these effects.

⁷The augmented balance concept could, in principle, be extended to capture any quasi-fiscal activities not recorded in the GFS-based balance in addition to those related to bank assistance.

categories in which they best fit. For example, operations involving the government obtaining a claim of similar economic value might be classified under lending minus repayments;

Table 2. Recommended Classification of Some Common Bank Assistance Operations

| Operation | Current Practice | Recommended Classification |
|--|--|---|
| <i>Quasi-fiscal operations</i> | | |
| Lending to, or equity purchase in, troubled banks by the central bank or public financial institutions, or non-standard government loans, such as placement of deposits. | Only affects the overall fiscal balance through either the incorporation of net income in the budget, or budgetary profit transfers (if the marginal rate of transfer is positive), of the public financial institution. | Loans minus repayments, equity purchase minus dividends/sale proceeds, and deposit transfers should be included in the augmented balance. 1/ |
| <i>Non-cash operations</i> | | |
| Recapitalization through issuance of government debt both unrequited and in return for non-performing assets. | Interest included in expenditure, but the principal component does not usually affect the overall balance. | Principal component should be recorded in the augmented balance. |
| <i>Divergent timing of cash and economic impacts</i> | | |
| <ul style="list-style-type: none"> ● Assumption by the government, or other public financial institutions, of the bank's, or bad debtor's, liabilities. 2/ ● Contingent liabilities, for example, insolvency of a public bank or Deposit Insurance Agency (DIS). | <ul style="list-style-type: none"> ● Excluded from the budget when assumed. ● Not recorded. | <ul style="list-style-type: none"> ● The full amount of liabilities should be recorded in the augmented balance when assumed. ● Report estimate of the potential cost to the government as a memorandum item, for example, the estimated insolvency of a bank or the DIS. |

1/ With a consequent offset in central bank transfers to the budget.

2/ Provided liabilities are not assumed as part of government takeover of a bank.

unrequited payments might be included under current or capital transfers, as appropriate. This is the approach that has been in effect adopted in some of the country presentations (e.g., Mauritania). The augmented balance has, however, the advantages of not relying on an *ad hoc* system of classification, and, when bank assistance costs are large and lumpy, providing both a standard and augmented balance facilitates analysis of fiscal stance developments over time. The augmented balance approach also has the important advantage of being supportive of the current proposals for revising GFS, which provides for the measurement of many quasi-fiscal operations, advocates an accrual recording basis, and allows for the supplementary recording of contingent items.^{8 9} Specifically, creating the augmented balance would entail the following:

Quasi-fiscal operations relating to bank assistance should be included in the augmented balance. One of the most important such operations is lending by the central bank, or other public financial institutions, to support a troubled bank.¹⁰ Ideally, some estimate of the implicit subsidy component should be recorded as fiscal expenditure, but in practice this is not generally possible. A more practical approach is to classify such lending for policy

⁸See IMF (1996) and Efford (1996).

⁹The augmented balance can also be seen as step towards a net worth approach to government sector accounting.

¹⁰Determining if a bank is troubled is difficult and should follow the distinction between LOLR lending and solvency support. Certainly, any protracted central bank support should be classified as a fiscal operation.

purposes as a determinant of the augmented balance.¹¹ When quasi-fiscal operations of public financial institutions cannot be separately identified, their operating position can be included in the augmented balance. The cost of other quasi-fiscal operations, such as purchasing equity in a troubled bank, should also be recorded in the augmented balance.¹²

Non-cash bank assistance operations not included in the standard fiscal balance should be included in the augmented balance if implemented for purposes of public policy.¹³ Some such strategies will have more substantial and immediate implications for demand and the fiscal stance (e.g., if a debt issue is negotiable) and others less, but this argues for careful interpretation of the augmented balance rather than not recording the operations. Thus, the principal component of bank recapitalization via issuing public debt should affect the augmented balance regardless of whether assets are received in return or the debt is negotiable. The full amount of deposits shifted to troubled banks should be included in the augmented balance if the motivation is to assist a troubled bank (i.e., the deposit shift is effectively a short-term loan).¹⁴ Conversions of a bank's non-capital liabilities to the

¹¹For more details on treating quasi-fiscal operations see Mackenzie and Stella (1996).

¹²If the public financial institution's net income is incorporated into the budget, or its marginal rate of profit transfer is positive, its contribution to the fiscal balance should be offset to avoid double counting. The offset would be 100 percent if net income is fully incorporated or the marginal rate of profit transfer is 100 percent.

¹³It should be noted that it is often difficult in practice to distinguish whether an operation is for the purposes of public policy.

¹⁴This requirement is in effect a clarification of existing GFS recommendations.

government into bank capital, undertaken when a bank is experiencing financial problems, are clearly effected for reasons of public policy and should be included in the augmented balance.

Bank assistance operations that have substantially divergent cash and economic impacts should, in principle, be recorded in the fiscal balance when the policy affects the economy. For operations that reflect prior policy, the implication would be to adjust past fiscal balances. Practically, this course is not feasible, and since it is preferable to record the costs at some stage, rather than at none, the operations should be shown when they are effected.^{15 16} In this case, however, there would be need for particular caution in interpreting the aggregate demand impact of the augmented balance. A swap of government debt for government-directed bad loans, for example, will have increased aggregate demand in the past, though an additional impact, through, for example, lower interest spreads, may occur when the swap is implemented.¹⁷

Operations that imply future outlays should be included in the augmented balance when implemented if the outlays are certain and known. For example, government assumption of a bank's liabilities should be added to the augmented balance (if not included in the

¹⁵For example, explicit inclusion in the budget would clarify the cost of the politically-appealing decision to provide government assistance, in particular, that it would be paid for by future generations.

¹⁶In analyzing the assistance operations, care should be taken to link the costs to the policies that gave rise to them, for example, a decision to extend a deposit guarantee.

¹⁷See Daniel op. cit.

standard balance) when the liabilities are assumed rather than when they are liquidated.¹⁸

Subsequent liquidation would be treated as amortization of government debt. Bank assistance operations that are contingent, either because of uncertainty regarding the amount or obligation, should not, however, be included in the fiscal accounts for practical reasons.

Including these sums would involve a high degree of estimation and may even lead to moral hazard as recognizing a potential claim on government resources may encourage perverse behavior. Thus, the current practice of recording such liabilities when they are liquidated is appropriate. However, since these liabilities still have an implication for assessing the sustainability of, and potential risks to, the fiscal stance it is important to include some assessment of their expected magnitude as a memorandum item.

III. STANDARD AND AUGMENTED FISCAL BALANCES: A NUMERICAL EXAMPLE

Consider the case of a government that recapitalizes a bank by issuing bonds to the bank (100) and to creditors (20), assuming the bank's interbank debt (60), and giving creditors cash (5). Bonds issued to the bank and creditors pay 10 percent annual interest and have 10 equal annual amortization payments. The interbank debt is for one month and bears a

¹⁸If the liabilities are implicitly assumed as part of a government takeover of an insolvent bank, the liabilities should not be recorded in the augmented balance as this would overstate the cost to the government. Rather, an estimate of the bank's insolvency (i.e., its negative net worth) should be recorded as a memorandum item when the bank is taken over and any subsequent bank assistance measures, such as a bond issuance, should be recorded in the augmented balance when implemented.

monthly interest rate of 1 percent. The central bank also extends a long-term loan of 30 to the bank. An audit also reveals that a public bank has an estimated insolvency of 50.

| | Standard treatment | Augmented treatment | |
|--|--------------------|---------------------|---|
| <u>Revenue</u> | 17.6 | 17.6 | Arbitrary amount chosen to ensure zero overall balance. |
| <u>Expenditure and lending minus repayments</u> | 17.6 | 17.6 | |
| Expenditure: non-interest | 5.0 | 5.0 | Creditor cash reimbursement (a current transfer). |
| interest | 12.6 | 12.6 | Interest on bonds (12) and assumed debt (0.6). |
| <u>Overall balance</u> | -- | -- | GFS treatment. |
| <u>Additional operations</u> | | | |
| Bank assistance measures not included above: | | | |
| <u>Expenditure</u> | | | |
| Noncash transfer reflecting bond recapitalization 1/ | -- | 120.0 | Counterpart to financing entry for bonds issued to bank (100) and creditors (20). |
| Noncash transfer reflecting assumption of debt 1/ | -- | 60.0 | Counterpart to financing entry for assumed interbank debt. |
| <u>Lending minus repayments</u> | | | |
| Quasi-fiscal operations: central bank loan | -- | 30.0 | Long-term loan by central bank. |
| <u>Augmented balance</u> | -- | -210.0 | |

| | Standard treatment | Augmented treatment | |
|--------------------------|--------------------|---------------------|--|
| <u>Financing</u> | -- | <u>210.0</u> | |
| Bonds | -- | 120.0 | |
| Debt assumption | -- | 60.0 | |
| Amortization | -72.0 | -72.0 | Repayment of interbank debt (60) and 10 percent of bonds (12). |
| Change in cash balances | 72.0 | 102.0 | Net decrease in cash/deposit holdings. Augmented treatment also includes central bank loan (30.0). |
| <u>Memorandum items:</u> | | | |
| Debt increase 2/ | 108.0 | 108.0 | Increase in liabilities for bonds (120.0) and debt assumption (60.0), less amortization (72.0). |
| Contingent liability | -- | 50.0 | Estimated insolvency of public sector bank. |

1/ If the bank assistance measures were not unrequited but associated with increases in government equity, the amounts shown would be recorded under lending minus repayments.

2/ For non-cash issuance of debt, GFS shows the debt liability, even though it does not show the transaction associated with the acquisition of the liability.

IV. CONCLUSION

Current guidelines and practice for classifying government bank assistance operations inadequately capture in the fiscal balance some of the most common, and important, such operations. The shortcomings result from the focus on the general government, the exclusion of non-cash operations, and divergences between the timing of cash outlays and the economic impact of assistance operations. Complementing the standard measures of the fiscal balance with an “augmented” balance would provide a definition that is transparent, comprehensive, and reasonably comparable across countries. It would also provide basis for an analysis of the fiscal impact of bank restructuring operations. The augmented balance would explicitly incorporate the major *quantifiable* fiscal costs of bank assistance operations that are not already included in current definitions of the overall balance.

References

- Baer, Herbert, and Gerard Caprio, Jr., 1995, "Bank Recapitalization: If and When," DEC Policy Review Note #2 (Washington: World Bank).
- Begg, David, and Richard Portes, 1993, "Enterprise Debt and Economic Transformation: Financial Restructuring in Central and Eastern Europe," in *Capital Markets and Financial Intermediation*, ed. by Colin Mayer and Xavier Vives, pp. 230-61 (Cambridge, England: Cambridge University Press).
- Borish, Michael S., Millard F. Long, and Michel Noël, September 1995, "Banking Reform in Transition Economies," in *Finance and Development*, pp. 23-26.
- Daniel, James A., "Fiscal Aspects of Bank Restructuring," IMF Working Paper, WP/97/52.
- de Juan, Aristóbulo J., 1991, "Does Bank Insolvency Matter? And What to Do About It," EDI Working Paper (Washington: World Bank).
- , 1995, "Linkages Between Bank Restructuring, Bank Privatization, and Enterprise Restructuring," CEEP Workshop Series, No. 6.
- Efford, D., 1996, "The Case for Accrual Recording in the IMF's Government Finance Statistics System," IMF Working Paper 96/83 (Washington: International Monetary Fund).
- Hinds, Manuel, 1988, "Economic Effects of Financial Crises," PPR Working Paper Series (Washington: World Bank).
- IMF, 1986, "A Manual on Government Finance Statistics" (Washington: International Monetary Fund).
- , 1996 (Statistics Department), "Government Finance Statistics Manual: Annotated Outline" (Washington: IMF).
- Ize, Alain, 1993, "How to Measure the Fiscal Deficit," ed. by M. Blejer and A. Cheasty, (Washington: International Monetary Fund).
- Lane, Timothy D., 1996, "The First Round Monetary and Fiscal Impact of Bank Recapitalization in Transition Economies," IMF Paper on Policy Analysis and Assessment 96/8 (Washington: International Monetary Fund).
- Lindgren, Carl-Johan, Gillian Garcia, and Matthew I. Saal, 1996, "Bank Soundness and Macroeconomic Policy" (Washington: International Monetary Fund).
- Mackenzie, George A., and Peter Stella, 1996, "Quasi-Fiscal Operations of Public Financial Institutions," *IMF Occasional Paper 142* (Washington: International Monetary Fund).
- Sheng, Andrew, 1991, "The Art of Bank Restructuring—Issues and Techniques," EDI Working Paper (Washington: World Bank).
- , 1996, "Bank Restructuring: Lessons from the 1980s" (Washington: World Bank).