



WP/05/72

# IMF Working Paper

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## Central Bank Losses and Experiences in Selected Countries

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## **IMF Working Paper**

Monetary and Financial Systems Department and Statistics Department

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April 2005

#### **Abstract**

**This Working Paper should not be reported as representing the views of the IMF.**

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

Under normal circumstances, a central bank should be able to operate at a profit with a core level of earnings derived from seigniorage. Losses have, however, arisen in several central banks from a range of activities including monetary operations under extreme conditions and financial sector restructuring. The paper discusses the impact of losses on central bank operations and lays out the principles and practices for handling central bank losses. It is suggested that losses should be disclosed as a reduction of the central bank's net worth unless covered by the government. Governments may cover losses through recapitalization of the central bank, and this will create a new central bank asset, usually in the form of government securities held by the central bank. Six case studies illustrate the circumstances under which losses may arise, their coverage, and central banks' disclosure practices.

JEL Classification Numbers: E58, F34, G15

Keywords: central bank balance sheet, central bank losses

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<sup>1</sup> This paper was first prepared as a technical note (MAE Technical Note TN/99/1). The authors gratefully acknowledge helpful suggestions from Tomas Baliño, Peter Dattels, Ed Frydl, Peter Hayward, Stefan Ingves, Alain Ize, Luis I. Jacome, Lucie Laliberté, Arne Petersen, Enrique de la Piedra, and V. Sundararajan.

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## INTRODUCTION

Under normal circumstances, a central bank should be able to operate at a profit with a core level of earnings derived from seigniorage. Losses have, however, arisen in several central banks from a range of activities including: open market operations; sterilization of foreign currency inflows; domestic and foreign investments, credit, and guarantees; costs associated with financial sector restructuring; direct or implicit interest subsidies; and non-core activities of a fiscal or quasi-fiscal nature.<sup>2</sup>

Failure to address ongoing losses, or any ensuing negative net worth, will interfere with monetary management and may jeopardize a central bank's independence and credibility. Transparency and accounting standards require net losses to be recorded as such in the income statement, charged against capital, and any resulting negative net worth to be properly disclosed in the equity section of the balance sheet. Net losses should not be presented in the balance sheet as assets unless they have been formally covered by the government.

Where central bank losses give rise to negative net worth, IMF recommended practice is for the government to recapitalize the bank by an injection of either cash or government securities, through a transparent budgetary appropriation.

The following section addresses some general principles and practices for handling central bank losses. Subsequent sections provide further detail on the specific circumstances of recent cases; other factors that may influence central bank profits and losses; accounting principles for the treatment of losses; and legislative practices for covering central bank losses.

### I. IMPLICATIONS OF LOSSES FOR CENTRAL BANK POLICY AND TRANSPARENCY

Central bank losses can arise in two ways, namely when:

- operating expenses exceed operating income, and result in net operating losses; and
- when net valuation losses from the revaluation of assets and liabilities and any impairment losses exceed operating income.

A central bank incurring net operating losses is, effectively, creating liquidity since it is transferring more cash to external entities than it is receiving. Accordingly, when a central bank operates with such losses, and especially when these are significant and ongoing, central bank policy can be affected and the losses may in fact impair the effectiveness of monetary or exchange rate policy.

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<sup>2</sup>Quasi-fiscal losses include, for example, providing subsidized credit or foreign exchange guarantees, or assuming the exchange risk for external borrowing on behalf of the government or public sector institutions.

Net losses that arise from large revaluations may be recognized in the accounts but since actual losses have not been realized, they do not have the same liquidity effect as operating losses. But they must, nevertheless, be recognized in the accounts as soon as they are identified. The treatment is analogous to a bank charging impairment losses against income and the result is the same. Once losses are recognized, amounts must be set aside in the future from income to restore the desirable level of net worth. This action must precede any decisions concerning the distribution of profits to shareholders. Ignoring such losses in the hope that they may be reversed should not be an option for a central bank, in part, because of its leadership role for the financial sector, the prime conduit of its policy actions.

To maintain transparency, and in line with accounting standards, net losses should be recorded on the face of the income statement, or deducted against the capital and reserves, thereby reducing central bank net worth. In extreme one-off situations, such as when major valuation losses occur, or in ongoing cases, losses can result in negative net worth for a central bank.<sup>3</sup> Negative net worth signals to the public that central bank losses have completely eroded the bank's capital, and must be accompanied by action to remedy the situation.<sup>4</sup>

From an accounting standards viewpoint, and notwithstanding central bank practices in some countries, net losses should not be shown as a deferred or unfunded asset in the balance sheet of a central bank. This is because such treatment does not mirror the underlying economic reality for the central bank, nor does it meet the asset recognition criteria established in accounting standards. In this latter regard, an asset should only be recognized on the balance sheet once action has been taken to cover the losses or negative net worth.

The impact of losses on central bank operations and the need to properly cover them is now recognized in the laws of many countries through provisions for government support in case of major central bank losses. Usually, this support takes the form of a budgetary appropriation by the central government in either cash or government securities to recapitalize the central bank.

In circumstances where the government is unable to successfully appropriate the necessary budgetary funds for the recapitalization, the central bank should be prepared to disclose its negative net worth to the public, along with actions that may be taken to restore net worth over time. Such disclosure provides a transparent view of the true financial condition of the central bank (including negative net worth). It also avoids creating an impression that the management of the central bank is either unwilling or unable to confront the problems that

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<sup>3</sup> It is important to note that the notion of negative net worth for a central bank differs from that of insolvency as applied to commercial enterprises. Unlike insolvent commercial enterprises, a central bank with negative net worth will not become subject to the sanction of official liquidation due to its status as a specialized economic agency. For a fuller discussion of why a central bank needs positive net worth, see Stella (1997).

<sup>4</sup> For a more in-depth discussion on remedies, see Leone (1993).

have given rise to the losses. Finally it serves to put the financial sector and the community generally on notice that the central bank must adopt a stringent and prudent approach to any further creation of credit or extension of central bank financial support.

## **II. FACTORS AFFECTING CENTRAL BANK PROFITS AND LOSSES**

### **Causes of central bank losses**

Central bank losses recorded by countries in Africa, Europe, Latin America, and the Asia-Pacific region during the 1980s and 1990s reflected many factors, including operating and valuation losses, and subsidies.<sup>5</sup> In many instances, losses were incurred in connection with activities which go much beyond conventional central banking functions. Specific causes included: the transfer of government or private sector debt to the central bank at an appreciated exchange rate; acquisition of nonperforming assets through development banking activities or from troubled financial institutions; devaluation of the domestic currency when foreign liabilities exceed foreign assets; losses on domestic securities or foreign currencies in the bank's portfolio; improper pricing of contingent liabilities such as foreign exchange guarantees; interest rate subsidies on loans to preferred sectors, institutions, or individuals; subsidies to exporters; assumption of the exchange risk in on-lending funds borrowed abroad; foreign exchange transactions at subsidized non-market rates; operational expenses associated with open market operations; and uncontrolled administrative outlays and transfers by the central bank.

In many cases, the accumulated losses became quite substantial before they were addressed, and represented a significant proportion of GDP.<sup>6</sup> Also, they highlighted the threat that unresolved central bank losses can pose to a central bank's ability to pursue an independent monetary policy and to fulfill its role in stabilizing the country's currency and domestic price level.

Some important lessons that came from these experiences are:

- overburdening of a central bank with tasks that go beyond monetary and exchange rate policy responsibilities should be avoided;
- the government should assume responsibility for the quasi-fiscal losses of the central bank;
- accumulated losses must be resolved; and

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<sup>5</sup>These countries include: Bolivia, Chile, Guyana, Jamaica, Madagascar, Peru, the Philippines, The Gambia, and Turkey.

<sup>6</sup> For further detail covering Latin American countries, see Leone (1993).

- steps must be taken to remove or limit the potential for future losses.

The latter two require actions to address the causes of losses, and also to recapitalize the central bank, most often through the formalization of the central bank's claims on the government and the conversion of such claims into debt instruments with an appropriate return.

### **Some factors of particular relevance**

Causes of central bank losses that are of particular relevance for the IMF's work are allowances for loan losses and bank restructuring costs; the impact of exchange rate devaluation on countries' obligations to the IMF; and the exclusion of certain items from the determination of net profits.

#### ***Loan loss allowances and bank restructuring costs***

Central banks in many countries have provided finance and credit that extend beyond the usual range of short term, collateralized, central bank standing facilities. Such extended facilities can include central bank financing associated with the provision of financial support during a crisis, implicit or explicit deposit guarantee schemes, or with bank restructuring arrangements. They may also include financing provided to entities beyond the group of financial institutions that are normally regarded as recipients of central bank credit facilities. This can occur where, for example, a central bank undertakes commercial or directed credit operations involving public or private enterprises, or where the central bank provides guarantees to support borrowings by other entities.

Extended credit arrangements expose central banks to a broader range of commercial risks, including risk of default or inadequacy of collateral, than those typically found in central bank portfolios. Where such operations occur, central banks must carefully evaluate the extent to which claims on debtors may be impaired and establish adequate loan loss allowances to cover possible losses in the same manner as would any commercial organization undertaking similar operations.

Bank restructuring costs may contribute to central bank losses in several ways: from write-offs of loans provided to banks that are subsequently placed into liquidation; from loss of interest when loans provided to banks are transferred to another agency at principal value only, i.e., excluding any accrued interest; from acquisition of low-income-earning assets—including the transfer of insolvent banks to the central bank and central bank take up of long-term low coupon government bonds; or as a result of additional operating costs absorbed by the central bank in implementing or managing a restructuring plan. The realization of guarantees provided to weak banks would have similar effects.

### ***IMF currency valuation adjustments***

In accordance with the Articles of Agreement of the IMF, each member undertakes to maintain the value of the Fund's holdings of that member's currency in terms of the SDR. Such holdings include funds held in the IMF No. 1 and No. 2 accounts at each member's central bank, and the amount of any securities issued to the Fund either by the central bank or other fiscal agent.

Securities usually represent the main means by which a member exchanges its own currency with the IMF for access to foreign currency under an IMF facility. Where the securities become a part of the central bank balance sheet, the annual currency valuation adjustment will initially be recognized as a component of all exchange rate revaluations. Where central banks hold an equivalent amount of foreign exchange, revaluation gains and losses could be expected to be offsetting. Where, however, the foreign exchange has been drawn down and used by, say, the government, subsequent revaluations can expose a central bank to large negative valuation adjustments in times of a depreciating national currency.

Such valuation adjustments are usually "paid" once a year through the issue of a further security or promissory note to the IMF. This requires an accounting entry in the books of the fiscal agent, normally the central bank or the ministry of finance, to reflect the valuation loss, depending on the institutional responsibility in each country for such payments. Where this responsibility falls on the central bank, it is important that the effects of the currency valuation adjustment are properly reflected in the bank's financial statements and clearly explained in the notes to the financial statements.

### ***Exclusion of items from net profit determination***

In one country, legislative provisions have excluded valuation losses, and certain interest rate costs associated commercial bank deposits at the central bank, from the profit and loss accounts of the central bank concerned. As a result, while the bank's profit and loss account records net profits, debit balances representing the valuation losses and interest costs have accumulated in a separate account which is shown as an asset in the bank's balance sheet. This approach overstates net profit and, accordingly, amounts available for distribution is not a recommended practice.

## **III. SPECIFIC LOSS EXPERIENCES**

Table 1 provides an overview of loss experiences of central banks in a number of countries in the 1990s.<sup>7</sup> This section presents an examination of some specific aspects for each country, including the main factors behind the losses, how the losses were covered, and how they were reported in central bank financial statements.

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<sup>7</sup> Countries were selected to represent some regional diversity, and also those countries for whom central bank losses are disclosed publicly and relevant information readily available.



Table 1. Central Bank Loss Experiences in the 1990s

Country	Year of loss	Loss in millions of national currency	Loss as a percentage of prior year central bank net worth	Loss as a percentage of central government expenditures	Loss covered by
Brazil	1997	1,875 (real)	52	1.5	Government
Chile	1997	756,560 (peso)	570	11.3	Central bank
Czech Republic	1996	8,653 (koruna)	32	1.8	Central bank
Hungary	1996	51,600 (forint)	108	1.8	Government
Korea	1994	73,331 (won)	7	0.1	Central bank
Thailand	1997	67,613 (baht)	147	7.7	Central bank

Sources: Central bank annual reports and Internet sites; IMF, *International Financial Statistics*, various issues.

### Brazil

Banco Central do Brazil's (BCB) losses for the year ended December 31, 1997, largely reflected the effect of interest differentials between the cost of domestic liabilities (including securities issued by BCB for monetary policy purposes) and the relatively low return on the bank's holdings of foreign currency assets.

The losses were recognized subsequently in a balance sheet account "Result to be Offset," where they were held until such time as they could be offset by positive results in future fiscal years. The balance of the account (i.e., accumulated losses) at end-December 1997 was R\$ 9.6 billion. Although the losses have not been securitized as a claim on the government, the balance of the Offset Account earns interest paid by the government at a rate based on the overnight interbank market rate. Since January 1997, this interest has been credited to a separate provision account that is used to offset the total of accumulated losses.

The losses and their treatment are disclosed in an Appendix to BCB's Annual Report, which is also available on the bank's Internet site.

### Chile

Losses recorded by the Banco Central de Chile (BCC) in 1997 reflected the mismatch between domestic and international interest rates from the use of BCC paper to sterilize foreign inflows, and an ongoing effect of reduced earnings stemming from BCC's involvement in a scheme to recapitalize the banking system in the late 1980s. In the case of sterilization activities, losses came about because BCC's earnings from foreign exchange assets were considerably below the cost of securities issued to absorb the liquidity impact of the foreign inflows. In the recapitalization exercise, the BCC injected cash into commercial banks through a take up of subordinated debt equivalent to the face value of banks' nonperforming loans. Subsequently, a debt for equity swap also saw the BCC hold equity positions in banks, in preparation for a privatization of the banks concerned.

The low level of earnings attached to the subordinated debt and equity holdings<sup>8</sup> has affected the ability of BCC operating income to absorb the costs of sterilization and since 1992, the BCC has recorded successive net losses. In addition, BCC was also accumulating unrealized losses on changes in the value of its equity positions in commercial banks. BCC net losses have been charged against its equity. In 1997, these losses resulted in negative net worth, which was disclosed in the bank's 1997 annual report.

## **Czech Republic**

Czech National Bank's (CNB) losses for the year ended December 31, 1996, reflected losses on financial transactions undertaken as part of the bank's monetary operations to sterilize the effects of foreign capital inflows, during a period in which a fixed exchange rate regime operated in the Czech Republic. (This regime was replaced, in 1997, by a floating regime as part of a range of measures adopted by the Czech Government to restore the pace of economic reform.)

The losses were included as a negative item against CNB capital and reserves, but did not result in negative net worth for the bank. (The Central Bank Law does not contain any provisions for the government to cover CNB losses.) In 1997, CNB profits were in excess of CZK 10.7 billion, and these were allocated to cover the 1996 losses and also to increase the bank's reserve funds. It should also be noted that the 1997 result was determined after the Czech National Bank charged some CZK 30.4 million (equivalent to almost three times the resulting net profit of CZK 10.7 million) against income to fund specific and general loan loss provisions for losses recognized during 1997.

Details of the 1996 net loss and 1997 loan loss allowances were reported in the CNB's Annual Reports, and more recent figures are also available from its Internet site.

## **Hungary**

The National Bank of Hungary's (NBH) losses in 1996 reflected two contributing factors. The first was associated with increased forint expenses associated with domestic liabilities and repurchase operations used to sterilize foreign currency inflows. During 1996, the NBH continuously bought foreign exchange, thereby increasing the forint issue of the bank. The second factor derives from the NBH's role as the foreign borrowing agent for Hungary. In this role, the NBH accumulated significant foreign exchange valuation losses on its net foreign currency liabilities that were recorded as a non-interest-bearing claim on the government in the NBH balance sheet. Although there was a process for gradual securitization of this claim into an interest-bearing claim on the government, the non-interest-bearing component accounted for almost 30 percent of total assets at end-December 1996,

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<sup>8</sup>The subordinated debt earned 2 percent per annum.

which correspondingly limited the scope for NBH revenues to cover increases in domestic interest expenses, particularly those associated with sterilization operations.

The losses of 1996 were covered by a budgetary allocation from the government which resulted in a small net profit available for distribution and payment of taxes. During 1997, legislative changes were introduced which saw the transformation of the remaining non-interest-bearing claim into an interest-bearing foreign exchange claim recognized by the government. This transformation also had the effect of covering the NBH's previous net foreign exchange liability position, thereby reducing the possibility of further foreign exchange valuation losses.

The losses and their remedies were fully disclosed in the NBH's 1996 and 1997 Annual Reports, which can also be accessed through the bank's Internet site.

## **Korea**

The Bank of Korea (BOK) incurred relatively small net losses in 1993 and 1994, largely as a result of negative interest margins between central bank securities issued and counterpart foreign currency assets. The losses were recorded as a negative item against BOK capital and reserves in 1993 and 1994, but did not result in negative net worth for the bank. Profitable operations returned in 1995 and 1996, and in the latter year, the bank allocated around two-thirds of net profits to the government.

Summary data on BOK assets, liabilities, capital, and profits and losses can be obtained from the bank's Internet site.

## **Thailand**

During 1997, the Bank of Thailand's (BOT) General Department incurred substantial foreign exchange losses of around B 170 billion through both market operations and end-year revaluation of foreign currency liabilities and assets. The market losses arose as the General Department engaged in foreign currency spot and swap transactions and in its market interventions in the period leading up to the floating of the baht. A valuation loss ensued when the Department's net foreign currency liability position was revalued at end-December 1997 exchange rates, which were considerably below the rates prevailing at the beginning of the year.

Of the total losses of B 170 billion, some B 104 billion was recognized in the Profit and Loss account, and B 66 billion was recorded as deferred unrealized losses in other assets on the balance sheet. The B 104 billion losses charged against income resulted in a net loss of B 68 billion. This was subsequently charged against the capital and reserves of the General Department, producing a negative net worth equivalent to about 3 percent of the total assets of the General Department. The remaining deferred unrealized losses recorded on the balance sheet were to be amortized over a four-year period.

Legislative provisions of the Currency Act and the Bank of Thailand Act at the time required BOT to maintain entirely separate accounts for its General Department and the Issue Department. Consequently, the bank was not able to offset General Department losses against profits of the Issue Department for 1997. The bank did, however, disclose in its 1997 Annual Report that Issue Department profits would have been adequate to cover the losses but for the legislative requirements. Subsequently, the government issued the Emergency Decree in 2002, allowing a one-time transfer of assets from a Special Reserve Account, which is part of the Issue Department's Account, to eliminate accumulated losses.

#### **IV. ACCOUNTING PRINCIPLES FOR THE TREATMENT OF CENTRAL BANK LOSSES**

From the above specific cases, a range of accounting responses to central bank losses are evident. Not all of these, however, are fully consistent with generally accepted accounting practices for recognizing and recording losses, or with IMF recommended practice. There are two main elements of relevance here. The first concerns recognition and treatment of actual losses, and the second concerns treatment of any subsequent earnings that may flow from a resolution or coverage of losses.

##### **Recognition of losses**

It is imperative that any losses are reflected in the financial accounts as soon as they are first discovered. This principle applies to central banks the same as it would to any organization.

Accounting standards require that all losses resulting from operations, or from diminution in asset values below historical cost, be first recognized in the income statement. Supporting this, for example, the conceptual framework for International Financial Reporting Standards does not permit losses to be recognized or accumulated as an asset on the balance sheet, because such losses do not meet the recognition criteria for balance sheet assets. Once a loss is recorded in the income statement it must then be charged against capital and reserves. When the losses result in negative net worth, this must be shown as a negative item in the equity section of the balance sheet until such times as action is taken to cover the losses, either through recapitalization or other financial structuring of the organization.

Application of these general principles to central banks is evident in some of the cases above, for example, where losses have been charged against capital and reserves or where the government has covered the losses with a budgetary outlay or through the issuance of securities to the central bank. Only when the government has actually acknowledged its coverage of losses through an issue of securities (which is equivalent to recapitalization), or where the central bank law provides for the "automatic" issuance of such securities, can a corresponding central bank asset be recognized.

Other cases involving the recording of losses as an asset or a deferred asset when, for example, a government is unable to cover losses, would not meet the International Standard definition of assets. This definition requires that an item can only be recognized as an asset when it is probable that the item will give rise to a future flow of economic benefits, and that

it can be reliably measured. While losses can be reliably measured, they would fail the probability test in the absence of an acknowledgement, or action, by the government to cover the losses. All the bank has at such a point is a deficiency of assets that it hopes to replace with a subsequent claim on the government. Until such time as that claim is accepted, the loss must be reflected as a negative element of equity.

Where losses result in negative net worth for a central bank, the practice recommended by the IMF is that losses be covered by the issue of government securities bearing interest at market-related rates.

### **Recognition of earnings flowing from coverage of losses**

Accounting standards require that any interest payments received on securities issued by the government to cover central bank losses be recognized as income and recorded as such in the income statement. They should not be credited directly to a balance sheet account.

Once a profit has been determined, such profits may then be allocated toward redemption or amortization of assets created to cover the losses. In this regard, a feature of central bank law in some countries is that when government securities have been issued to cover past central bank losses, any future profits are first allocated to the redemption of such securities. Related to this is the more general accounting principle that all payments and receipts that are in the nature of interest must be recognized in the income statement for the determination of net profits. Failure to do so results in financial statements that are not comparable with those of other organizations, and which also lack transparency in terms of presenting the true position and results of central bank operations.

## **V. LEGISLATIVE PRACTICES FOR COVERAGE OF CENTRAL BANK LOSSES**

Model central bank law as recommended by the IMF includes provisions for coverage of central bank losses through two main features. These features are found in the central bank laws of many countries.

The first feature provides for central banks to maintain general and other reserves which are available to cover operational losses and other risks facing a central bank. This requirement serves to establish the basic financial soundness of a central bank. The level of reserves may be set as a multiple of capital or, as has been the case more recently, as a percentage of the monetary liabilities of the central bank.

The second feature applies to situations where a central bank has negative net worth. This can occur when the value of a central bank's assets falls below the level of its liabilities and unimpaired capital as a result of losses. In this case, the law would require the government to issue to the central bank securities that bear interest at market-related rates. This process restores the solvency of a central bank. Furthermore, the requirement that the securities earn interest also serves to provide a level of core earnings to cover normal operating expenses, thereby reducing the scope for further operating losses.

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