

Foreign Central Bank Remittance Practices

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1. Executive summary

This note reviews the remittance practices of foreign central banks, with a focus on how losses and expected losses from central bank operations influence remittances. Remittance practices vary widely, but many central banks have adopted accounting and distribution policies that result in some smoothing of remittances around periods of loss. In general, we find that:

- Central banks engage in a variety of accounting and distribution practices that have an influence on the amount and/or timing of remittances, although the motivation for many of the practices reviewed here may be related more to retaining sufficient capital than to smoothing remittances.
- Most central banks suspend remittances when net income drops to zero or below, although some have smoothing arrangements that allow them to continue remittances if losses are not too large or too persistent.
- Some central banks will resume remittances as soon as net income becomes positive again, but many will continue to withhold earnings to restore reserves and capital.
- We examine the experience of three central banks that had significant losses and in some cases operated with negative capital. Such losses do not appear to have affected the ability of the central banks to implement policy. Moreover, as those central banks were seen as implementing policy appropriately, the political fallout from the losses was contained.

Section 2 below begins with a discussion of the impact on remittances of the ways in which central banks present and organize their financial accounts, ensure capitalization, and shift risks in advance of potential losses. In particular, the section looks at the treatment of unrealized gains and losses, at provisioning practices, at retaining earnings, at capital infusions from outside the central bank in anticipation of losses, and at a couple of other, more idiosyncratic policies, all of which influence remittances, especially the volatility of remittances. Section 3 then considers how remittances behave when losses are incurred and how quickly remittances resume once net

¹ This review draws heavily on the work of the Study Group on Central Bank Finances that was headed by Philipp Hildebrand for the BIS Central Bank Governance Group. That work culminated in a December 2011 report, “Central bank finances: How have they changed? Are they relevant for policy?” We also received helpful comments and suggestions from Jim Clouse, Bill English, Jon Faust, Jane Ihrig, Steve Kamin, Steve Meyer, and Larry Mize.

income becomes positive after a period of losses. Finally, section 4 summarizes the experiences of the Swiss National Bank, the Czech National Bank, and the Central Bank of Chile, three central banks that have suffered large losses.

2. Arrangements that influence the volatility of remittances

This section reviews a number of ways in which central bank remittances might be influenced by arrangements central banks make in advance of losses. These include the accounting treatment of unrealized gains and losses and the ways in which central banks provision for losses, retain earnings, and otherwise increase capital. The section also discusses some cases in which central banks explicitly smooth remittances and considers a couple of idiosyncratic arrangements used by the Bank of England that influence the volatility of its remittances. Although all of the arrangements discussed have implications for remittances, the motivation for many of them likely stems from a concern over maintaining strong equity positions, which is seen as supporting effective policymaking and confidence in the currency.

Treatment of unrealized gains and losses

For most central banks, remittances depend on the net income reported in the financial accounts, and reported net income depends in turn on the accounting treatment of unrealized gains and losses. In this section, we describe accounting practices that differ in their treatment of unrealized gains and losses and in the degree to which they let such gains and losses show through to reported net income. All else equal, accounting practices that reduce the volatility of reported net income will tend to smooth remittances.

Many central banks use fair value accounting methods to some degree in their financial reporting. These methods, which adjust book valuations on each recording date to match values observed in the market or values estimated by models, require recording in the accounts unrealized changes in the values of financial instruments.² However, not all fair value accounting schemes used by central banks treat these changes in values in the same way. In some schemes, fluctuations in values pass directly into the calculation of net income. In those cases, an unrealized gain increases reported net income and possibly remittances. If later the unrealized gain is reversed, a loss will be recorded, lowering net income and remittances.³

With this accounting approach, it is possible to remit an unrealized gain, which adds to reported net income, only to find later that the gain will not be realized. If the subsequent reversal in value is sufficient to make overall net revenue become negative and to force remittances to fall to

² Even central banks that have not adopted fair value accounting typically mark-to-market their foreign currency denominated assets and liabilities, thereby recording unrealized gains and losses on the foreign currency parts of their financial accounts.

³ Central banks that pass revaluations on a substantial share of their balance sheet items directly through to net income include the Central Bank of Chile, the Bank of Mexico, the South African Reserve Bank, and the Swiss National Bank.

zero, the central bank may well have paid out remittances earlier on an unrealized capital gain that it could not fully retrieve when the gain disappeared. Other fair value accounting schemes avoid such an outcome. In these schemes, fluctuations in values are passed first to revaluation accounts. Recording an unrealized gain entails increasing the value in a revaluation account, and recording an unrealized loss entails decreasing the value in the revaluation account. The net value in this account then enters into the calculation of net income only when the financial instrument is sold. In this way, unrealized gains and losses are recorded on balance sheets but influence neither net income nor remittances.⁴

Another important variant on fair value accounting with revaluation accounts is the one used by the ECB and the euro-area national central banks.⁵ These central banks bound the extent to which revaluation accounts can absorb unrealized losses. All unrealized gains result in increases in revaluation accounts, but unrealized losses are recorded in revaluation accounts only to the extent that they do not exceed previous gains.⁶ When unrealized losses exceed previously recorded gains (including when no previous gains were recorded), the unmatched portions of losses directly pass through to net income and reduce remittances. Thus, unrealized gains cannot increase remittances but unrealized losses can decrease them. This accounting approach has the effect of delivering lower net incomes from which remittances would be made, compared with either of the previously described fair value methods.

The Reserve Bank of Australia follows a distribution policy that has the same effect on remittances as the ECB accounting policy just described. The main difference is that the RBA first reports unrealized gains as net income. However, the RBA then extracts the unrealized gains from net income to compute income available for distribution to the government. The unrealized gains are instead allocated to a reserve fund, which can absorb future valuation losses if any occur or be distributed if the financial instrument is sold. If losses exceed previously accumulated unrealized gains, the excess is taken against income. Thus, unrealized gains do not increase remittances but losses in excess of previously unrealized gains reduce remittances.⁷

In contrast with fair value accounting methods, accounting at cost, either historical cost or amortized cost, does not recognize fluctuations in market values of securities or other financial instruments held on the books.⁸ Thus, these fluctuations do not affect reported net income and do not affect remittances.⁹

⁴ The Czech National Bank and the Riksbank employ such accounting schemes.

⁵ The Riksbank also uses the ECB's accounting method.

⁶ In this arrangement, revaluation accounts are created for each security and for foreign exchange by currency.

⁷ The Reserve Bank of New Zealand follows a similar practice, where in general unrealized gains are retained by the Bank until they are realized. However, the RBNZ may recommend that some unrealized gains be distributed when it believes that the probability of the gain being realized is high.

⁸ Accounting at amortized cost entails initially recording the value of the security on the books at the purchase price of the security (historical cost). At subsequent valuation dates, the book value of the security is adjusted so that over the remaining life of the security the difference between the purchase price of the security and its face value is

Provisions, reserves, and capital

Many central banks make allocations to accounts for provisions or reserves before making transfers to governments and shareholders.^{10 11} The accounting nature of these allocations varies: Some reflect charges that reduce net income; others reflect the portion of reported net income that is retained on the balance sheet as equity or capital rather than distributed. In either case, however, the amount of net income available for distribution is reduced when such allocations occur.

Allocations of the first type, which reduce net income, are typically calibrated to match the riskiness of a central bank's operations. For example, in 2005 the Governing Council of the ECB decided to begin provisioning for a set of specific balance sheet risks, including exchange rate, interest rate, and gold price risk.¹² In 2009, following the introduction during the crisis of the ECB's covered bond purchase program, the scope of this provision was extended to include credit risk as well. The provisions were guided in part by a risk assessment involving calculation of values at risk (VaR). Some euro-area NCBs, such as the Bundesbank, also make provisions for risk of this sort.

When losses occur, accumulated provisions of this type can be drawn down without affecting current net income. But because net income in previous periods had been reduced to create the provisions, provisioning along these lines tends to spread losses over time and smooth remittances.

While not all central banks make allocations of the type that spread losses in this way, most allocate some portion of net income to capital or equity. Many central banks—including the Bank of England, the Bank of Japan, and the Riksbank, among others—accumulate general reserves by retaining a fixed percentage of their net incomes, as prescribed in their respective central bank laws.¹³ These retained earnings accounts thus fluctuate with earnings and, while the

gradually eliminated. This process amortizes the premium or discount at which the security was purchased, so that when the security matures, the book value and the face value are the same.

⁹ The Federal Reserve and the Bank of Japan make extensive use of amortized cost accounting in their financial reports. However, even these central banks mark to market their foreign currency denominated holdings, thereby recording some unrealized gains and losses in their financial accounts.

¹⁰ Most central banks make remittances to governments. The ECB makes remittances to its shareholders—the euro-area national central banks, which in turn make remittances to their governments. Some other central banks, such as the Federal Reserve, the Swiss National Bank, and the South African Reserve Bank, pay dividends to private shareholders as well as make remittances to their governments. These dividend payments are typically small.

¹¹ A number of central banks, such as the Bank of England, the Bank of Japan, the Bank of Korea, and the South African Reserve Bank, pay taxes to their governments. We do not consider the effects of these distributions on remittances in this note.

¹² This decision to increase provisions led to a suspension of the ECB's remittances to the NCBs for three consecutive years starting in 2005, as the ECB allocated all surplus revenues to its general provision and reported its net income as zero in each of those three years.

¹³ Other examples include the Netherlands Bank, which retains all profits from sales of gold and 5 percent of remaining net income, and the Bank of Korea, which can retain 10 percent or more of its net income to build reserves.

accounts are used to absorb losses, their size is not explicitly related to the riskiness of assets on the balance sheet or the probability of future losses. In addition, some reserves of this type are limited in size, such as the general reserves of the ECB and the Bundesbank, in ways that do not obviously relate to the scale of potential losses.¹⁴

In contrast to the provisioning that spreads losses over time, these retained earnings accounts do not shift the time at which losses are recorded in the accounts. The retained earnings accounts generally absorb losses only if net income becomes negative. In those cases, because the accounts do not insulate net income from losses, remittances are likely to decline at the time losses occur. However, to the extent that remittances can resume sooner once net income becomes positive again, perhaps because it is not necessary to withhold future net income for as long to rebuild equity to an acceptable level, the earlier additions to reserve accounts might still smooth remittances.

Explicit smoothing of remittances

For most central banks, the transfer to the government or shareholders is a residual: a payment of what is left of net income after allocations to provisions or reserves. But some central banks smooth remittances explicitly and let other accounts serve as the residual. Both the Swiss National Bank and the Riksbank use reserve accounts that are explicitly designed to smooth remittances. The Swiss National Bank makes payments from net income to a profit distribution reserve. This reserve accumulates distributable profits and funds annual remittances to the cantons and the Swiss Confederation. It serves as a buffer between the earnings of the SNB, which fluctuate from year to year, and the fixed annual transfer to the government. The SNB agrees with the Federal Department of Finance on a fixed nominal amount to transfer to the government each year for a fixed number of years, as long as the transfer does not leave the distribution reserve negative. The amount transferred can be taken from current profits or from the distribution reserve: Profits in excess of the fixed amount are added to the reserve, and profits less than the fixed amount require drawings from the reserve to make up the difference. The Riksbank smooths its remittances by paying out a share of its adjusted net income averaged over five years, with its reserves serving as a buffer between remittances and current net income.¹⁵

By contrast, there are also a few cases in which reserve accounts are not loss absorbing and do not help smooth remittances. The Federal Reserve's surplus account is an example, as is the

¹⁴ The general reserve of the ECB can be no larger than paid-in capital. The Bundesbank has a statutory limit on its general reserve of €2.5 billion.

¹⁵ The adjustment to net income removes unrealized gains and losses arising from movements in exchange rates and the price of gold.

currency reserve of the Swiss National Bank, which normally receives an allocation regardless of net income.¹⁶

Capital infusions

Some central banks have asked at times for an infusion of capital in advance of operations that might not be self-funding. For example, the Bank of Japan recently obtained permission from the government to set aside more of its profits as reserves, given the greater risk of loss on its asset holdings.¹⁷ And in 2004, the Reserve Bank of New Zealand received a capital injection from the New Zealand government to fund intervention in the foreign exchange market.¹⁸ As with setting aside a portion of net income to bolster reserves, these operations have the effect of reducing net transfers to the government or shareholders in advance of a loss (where net transfers would be regular remittances less the capital injection), and possibly reducing the period during which remittances are suspended or diminished in the aftermath of a loss.

Another example of a capitalization prior to any realized losses involves the ECB. The Governing Council, after consulting the European Parliament and the European Commission, has the authority to require the NCBs to increase their capital subscriptions in the ECB. The Governing Council recently decided to exercise that authority and called for an increase in its subscribed capital by €5 billion over the course of three years starting in December 2010. This increase allowed the ECB to increase also the size of its provision for exchange rate, interest rate, gold price, and credit risk, which by statute can be no larger than the size of paid-in capital.¹⁹

A related arrangement, which is equivalent to a guarantee of an ex post recapitalization, if needed, is government indemnification of central bank operations. The Bank of England provides a prominent example. During the financial crisis, the BoE frequently obtained indemnities from H. M. Treasury for specific operations, including those under the Special Liquidity Scheme and the Asset Purchase Facility as well as for the provision of emergency

¹⁶ The currency reserve of the Swiss National Bank is different from the distribution reserve described above. Allocations to the currency reserve are determined by formula that normally targets a ratio for reserves to nominal GDP. Adjustments to the formula can be made at the discretion of the Bank Council—a board of directors that includes representatives nominated by the federal government and the shareholders of the SNB (which includes the cantons). Allocations to this fund were made even in the years the Bank experienced substantial losses. The SNB's currency reserve is currently valued at almost 10 percent of central bank assets.

¹⁷ In fiscal years 2008 and 2010, the Bank of Japan transferred 15 percent of its net income to its legal reserve rather than the 5 percent specified in the law. The law permits allocations to the reserve fund of amounts in excess of 5 percent of net income upon authorization from the Minister of Finance. These extraordinary allocations could be seen as equivalent to making the larger remittance that would occur had the allocation to reserves been only 5 percent of net income, combined with a simultaneous capital infusion from the government of the amount remitted in excess of the 5 percent.

¹⁸ The Reserve Bank received another injection in 2008 when the central bank adopted IFRS and shifted to recording changes in the unrealized market value of government securities in equity. Evidently, the government viewed the accounting change as sufficiently valuable to warrant a capital injection to cover the resulting increase in the reported volatility of the central bank's equity position.

¹⁹ The statute of the Eurosystem Central Banks requires that the risk provision together with the general reserve fund not exceed the value of capital paid in by the euro-area NCBs.

liquidity assistance (ELA). All Eurosystem central banks also have arrangements with their governments to protect the central bank from losses incurred on loans made via their ELA operations. These operations have the effect of smoothing central bank remittances by removing the losses from central banks' accounts of some of the riskier operations central banks conduct.

Other policies that influence remittances

The unique accounting structure of the Bank of England also likely results in a smoothing of remittances, as it reduces the probability that remittances would ever drop to zero. The BoE is organized into an Issue Department and a Banking Department, with each department having its own set of accounts and remittance policy. The Issue Department, which has been assigned accounts associated with the issuance of banknotes, must remit 100 percent of its net income (seigniorage) to the Treasury. This part of the BoE's activities is the main source of the Bank's overall net income, and the risk of loss associated with these activities is very low. The other department, the Banking Department, records all other BoE income and expenses. If losses occur, they are more likely to lead to an interruption of remittances from the Banking Department, with no effect on the remittances of the Issue Department.

The arrangement used by the Bank of England to conduct operations under its Asset Purchase Program reflects a further segregation of accounts and has an influence on remittances. The BoE operates its Asset Purchase Program through a subsidiary, the Bank of England Asset Purchase Facility Fund (BEAPFF), which is funded by a loan from the Bank of England. The government indemnifies the operations of the Fund and, accordingly, receives any surplus from the Fund and bears any loss.²⁰ Originally, remittances from the Fund were to occur after the Fund was fully wound down and any profits or losses would be settled through a one-time transfer to or payment from the U.K. Treasury. The arrangement changed in November 2012, however, to require quarterly transfers to the Treasury of all positive cash balances generated by the Fund and any negative cash balance to be offset by a quarterly transfer from the Treasury. The new arrangement will necessarily lead to more volatile cash flows from the BEAPFF to the Treasury and may entail negative remittances at some point.

3. Net income fluctuations and remittances

This section looks more specifically at what happens to remittances when losses result in negative net income and what happens to remittances immediately following, when net income becomes positive again. Of course, central banks that provision for future losses, such as the ECB and the Bundesbank, may have some capacity to manage how quickly reported net income becomes positive again and how quickly remittances resume. For example, allocations to restore provisions after a loss could be large enough to result in reported net income of zero and the continued suspension of remittances. However, even for these central banks, certain remittance practices are followed when reported net income is negative and once reported net

²⁰ Accordingly, the Bank of England does not consolidate the BEAPFF into its financial statements.

income becomes positive again. In general, central bank remittance practices vary, and they depend on the magnitudes of both the hit to net income and the subsequent rebound.

When net income is negative

Most central banks will suspend remittances when net income turns negative, and some have arrangements that allow for negative remittances—transfers *from* rather than *to* the government or shareholders—if the loss is large enough. The Bank of England might also make remittances if the losses are in only one of its two departments (most likely its Banking Department).

Central banks with distribution policies that explicitly smooth remittances will continue to make remittances even if current net income is negative, so long as the loss is not too large. For example, the Swiss National Bank will continue to make remittances as long as the loss does not leave the value of the SNB's distribution reserve negative, and the Riksbank will continue to make remittances as long as the loss does not push the five-year average of income to zero or below. If the loss is large, however, central banks that smooth remittances can suspend payments.

A few central banks have arrangements in which they will receive an infusion of funds from their governments if losses are large enough to deplete reserves. By law, any losses incurred by the Bank of Korea that exceed its reserves will be made up by the government. The ECB also has a recapitalization arrangement. This recapitalization, which is provided for by statute, would come after the ECB's general reserve fund had been depleted. Then, by decision of the Governing Council, the ECB could impose a charge on the NCBs to help offset any remaining losses.²¹

In addition, the ECB has stated that member states should provide their respective NCBs with appropriate amounts of capital, which is at least at the level of statutory capital, within a reasonable period of time after any shortfall. Of course, euro-area governments may not always be in a position to provide the new capital quickly or may not feel compelled to put such a demand for government resources ahead of other priorities. In the case of the Central Bank of Ireland, for example, there is no mechanism in Irish law at present indicating in detail how the government might replenish the capital of the CBI if capital fell below the statutory minimum, even if it is expected that some action would be taken.

When net income becomes positive again

All central banks will remit at least some amount if the return of positive net income is sufficient to fully restore capital and reserves. With smaller positive net incomes, remittances may or may not resume.

Many central banks can continue to suspend remittances after net income becomes positive. Some can continue to withhold net income until capital and reserves that were depleted by the

²¹ The charge would be against the monetary income of the NCBs.

earlier loss have been fully restored. For example, after reporting negative net income in 2007, both the Czech National Bank and the Central Bank of Chile had positive net income in 2008, and neither central bank made remittances in 2008. Instead they retained earnings to help rebuild reserves and capital that had been depleted. The Bank of Mexico reported positive net income in 2007 but made no remittances, using its income that year to help restore general reserves following the loss that was made in 2006.

Some other central banks can continue to suspend remittances after net income becomes positive, but the amount of net income that can be withheld may fall short of full restoration of reserves and capital. For example, if the Bundesbank experiences losses that leave it with a reserve shortfall greater than €250 million, the central bank can allocate only the first €250 million of its net income to rebuilding reserves before it is required to start making some remittances to the German government.²² Similarly, the Netherlands Bank can retain up to one-sixth of an earlier loss before making any remittances.²³

Central banks that explicitly smooth remittances, such as the Swiss National Bank and the Riksbank, may also refrain from making remittances when net income turns positive immediately after a period of loss. If the losses experienced by these central banks were so large that they actually interrupted remittances, it is possible that the resumption of positive net income may not be sufficient to trigger an immediate restart of remittances.

Some central banks are required by law to distribute a portion of their net income to their governments or shareholders whenever net income is positive, regardless of the level of capital and reserves. The Central Bank of Ireland is expected to remit at least 80 percent of its net income. Similarly, the Bank of Japan's statutes call for the Bank to remit 95 percent of its net income to the national treasury, although that ratio can be lowered if authorized by the Minister of Finance. The ECB also has a requirement to resume remittances once net income turns positive and is expected to remit at least 80 percent of its net income to the NCBs, even if the ECB needs to rebuild its general reserve fund. If the general reserve fund is at its maximum, the ECB should remit all of its profits. These requirements increase the rate at which remittances return after a loss but slow the rate at which central banks can restore reserves and provisions

²² If the reserve shortfall is greater than €250 million, the Bundesbank will allocate all of its net income up to €250 million to general reserves. For increments of net income in excess of €250 million, the Bundesbank will allocate 20 percent to its general reserve and remit 80 percent, until the reserve shortfall is eliminated. Any remaining net income will be remitted in full. If the reserve shortfall is less than €250 million, net income will be allocated to reserves until the shortfall is eliminated, and any excess income will be remitted in full.

²³ In 2003, the Netherlands Bank (DNB) conducted a simulation of its balance sheet and profit and loss over a 10-year period using asset liability management (ALM) techniques. The results of this analysis facilitated an agreement with the Ministry of Finance, in which the DNB would be allowed to hold capital and reserves sufficient to withstand most adverse outcomes, as defined by the model, over the 10-year period. In addition, to assist in reaching that target following a loss, the ministry agreed to allow the central bank to retain future profits in amounts that would offset the loss over the subsequent six years. As a result, once net income turns positive, the DNB is allowed to retain annually net income of up to one-sixth of its earlier loss before transferring any income to the government. The DNB is then expected to remit 95 percent of any further net income, after subtracting any gains from the sale of gold (another concession the ministry made to support the central bank).

depleted by earlier losses, compared with the ability to suspend remittances entirely in such a situation.

4. Case studies of central banks that have experienced losses

This section offers three case studies of central banks that have suffered large losses. In addition to influencing remittances, which were suspended for long periods of time in some cases and not suspended at all in another, the losses also elicited a range of political and governmental responses. In each case, however, the losses do not appear to have restrained the effectiveness of the central bank's policy operations.

The Swiss National Bank

In reaction to the global financial crisis and the European debt crisis, the Swiss National Bank (SNB) began in 2008 to conduct operations that increased the size of its balance sheet. Since then, the balance sheet has grown by a factor of 4, to more than 80 percent of GDP at present. Much of the increase owes to unsterilized foreign exchange intervention, and since 2010 a majority of the SNB's assets has been denominated in a foreign currency. Like most central banks, the SNB marks its foreign assets to market, and exchange rate fluctuations influence its net income.

Due to a sharp appreciation of the Swiss franc against the euro, the SNB registered a loss in 2010 of about 21 billion Swiss francs (\$22 billion), about 3½ of percent of GDP.²⁴ The SNB had a very large amount of capital and reserves at the time, so the loss did not result in a negative equity position for the Bank. However, the loss led to political pressure on the SNB: There were calls by a major opposition party to rescind the independence of the SNB and make the institution a department of the Finance Ministry, and some politicians also called for the resignation of the chairman of the SNB's governing board, Philipp Hildebrand. Amid concerns that losses might continue, the Vice Chairman of the SNB gave a noted speech in 2011 in which he assured the public that the SNB could operate in the future with negative equity if need be.

The Swiss National Bank had negotiated in 2002 an agreement with the Finance Ministry under which it would provide a fixed annual remittance of 2.5 billion Swiss francs to the Swiss authorities (⅓ to the federal government, ⅔ to the cantons). Even after its 2010 loss, the SNB made the agreed-upon payment to the authorities in early 2011, drawing the funds from its distribution reserve account. Later in 2011, however, the SNB and the Swiss government renegotiated their remittance agreement. The new agreement lowers the SNB's annual remittance to 1 billion Swiss francs. It allows for no remittance if a remittance would leave the Bank's distribution reserve account with a negative balance, but also calls for a renegotiation if the distribution reserve grows beyond 10 billion Swiss francs. The SNB recorded a profit of

²⁴ The SNB also registered a loss of about 5 billion Swiss francs in 2008.

about 10 billion Swiss francs in 2011 and 6 billion Swiss francs in 2012, and political pressure on the Bank has greatly diminished.

The Czech National Bank

The Czech National Bank was created in 1993 with a low capital base. Its early profits were spent in the 1990s on programs designed to support the banking sector. In addition, the CNB accumulated sizable foreign exchange reserves, in part in an effort to counter upward pressure on the Czech koruna. The foreign exchange reserves led to losses for the CNB as the interest cost paid on sterilization operations exceeded the interest income generated by the foreign securities held in reserves; losses were incurred also when the domestic currency appreciated. As a result, the CNB has registered losses in a majority of years since its inception.

In recent years, the CNB reported losses in 2006, 2007, and 2010, but profits in 2008, 2009, and 2011 (with losses a bit larger in total). As a result of accumulated losses since the 1990s, the CNB has long had a negative equity position, amounting to almost 4 percent of GDP at the end of 2011. In recent years, even when the Bank has made a yearly profit, it has not made remittances to the government. The CNB plans to replenish its reserve accounts slowly over time from its own profits, forecasting that it will reach a positive equity position in 10 to 15 years.

The CNB has argued that its losses are evidence of a successful monetary policy and that one cause of the losses, an appreciating domestic currency, reflects confidence in the central bank's policies, particularly its success in fighting inflation. Furthermore, the CNB has stated that it believes that losses or negative capital have "never undermined its independence or limited its decision-making and operational capacity in any way." To educate the public and legislators, the CNB routinely splits its profit and loss accounts to present separately the effects of domestic and foreign operations; the accounts show that, in recent years, losses have been related to the foreign-currency holdings of the Bank.

The Czech Republic is a member of the European Union and, as such, it is scheduled to adopt the euro in the future. In a recent dispute, the ECB rebuked the CNB for its negative equity position and argued that the Czech government should recapitalize the Bank over the next few years. The CNB responded that a recapitalization would likely lead to a loss of independence and that it was better therefore for the CNB to rebuild its capital over time from its own profit. In addition, the CNB even argued that, in its view, positive equity was not necessary for a central bank to join the Eurosystem.

The Central Bank of Chile

With the exceptions of 2008 and 2011, the Central Bank of Chile (CBC) has declared an annual loss every year since the early 1980s. These losses arose initially from a bailout of several large banks in 1982, and they have continued because the large portfolio of foreign securities held by

the Bank has yielded a lower return than the interest paid on its domestic-currency liabilities. In addition, further losses have occurred in years in which the Chilean peso has appreciated, as the CBC marks its foreign currency holdings to market.

As a result of this series of losses, the CBC has long operated with a negative equity position. Despite capital injections by the government in 2006, 2007, and 2008, which were equivalent, in total, to about 1.5 percent of GDP, the negative equity position of the CBC in 2011 amounted to about 2¼ percent of GDP. In principle, according to the 1989 act governing the operations of the CBC, the Bank can retain up to 10 percent of its annual surplus to build up reserves. The act was recently amended, however, and it now allows the Bank to retain any annual surplus it generates until it rebuilds its capital and reserves. The CBC estimates that it may take 20 years or more to reach a position of consistently positive equity.

Despite the weakness of its balance sheet position, the CBC has been widely viewed as a successful central bank, with its policies often seen as a model for Latin America. In fact, the success of its policies, in particular in fighting inflation, has contributed to its losses, as it has at times led to an appreciation of its domestic currency. The sound fiscal position of the government is also often cited as a reason for the apparent lack of public concern over the equity position of the CBC, as the government is seen as capable of recapitalizing the central bank without raising major concerns over its fiscal health.