

# Macro policies and public debt in Chile

Sebastián Claro and Claudio Soto<sup>1</sup>

## Abstract

This note characterises the evolution of Chile's public debt, and discusses its implications for the management of the country's monetary policy. Historically, the main issuer of public debt in Chile was the central bank. The government, in turn, has recently started to engage in a more active debt policy, with the aim of deepening the market for risk-free securities and diversifying its funding sources. In general, the soundness and predictability of fiscal policy and the high degree of coordination between the government and the central bank has meant that the debt policy of the fiscal authority has posed no major challenge for the conduct of monetary policy. Moreover, the government's positive net asset position government has played an important role, allowing the central bank to fulfil its price and financial stability objectives in spite of a negative equity position.

Keywords: Monetary policy, fiscal policy, public debt

JEL classification: E52, E62, H6

---

<sup>1</sup> Board Member of the Central Bank of Chile and Head of Macro Analysis, respectively. The views expressed in this note do not necessarily represent those of the central bank. We thank Luis Oscar Herrera, Matías Bernier and Sergio Salas for their contribution to an earlier version.

## I. Introduction

This note outlines the evolution of Chile's public debt and discusses its implications for monetary policymaking. Historically, the main issuer of the country's public debt has been the Central Bank of Chile (CBC). In the 1980s, a large amount of debt was issued by the monetary authority to finance operations resulting from the 1982–83 banking crisis. Later, in the 1990s, debt was issued to sterilise large reserves accumulations. The last two administrations, in turn, have engaged in a more active debt policy and the share of public debt issued by the treasury has increased.

In the last few years, two factors have shaped the evolution of Chile's public debt. On the one hand, the government has issued debt mainly with a view to deepening the market for risk-free securities. It has needed to issue only relatively small amounts of public debt to finance its operations and roll over existing debt. On the other hand, the CBC has issued long-term bonds to finance two massive reserve accumulation programmes, one in 2008 and the other in 2011.

Overall, the soundness and predictability of fiscal policy and the high degree of coordination between the government and the CBC have meant that the conduct of monetary policy has faced no major challenges. In this context, the country's positive net asset position has played an important role: it has allowed the central bank to fulfil its price and financial stability objectives in spite of a negative equity position.

## II. The evolution of public debt in Chile

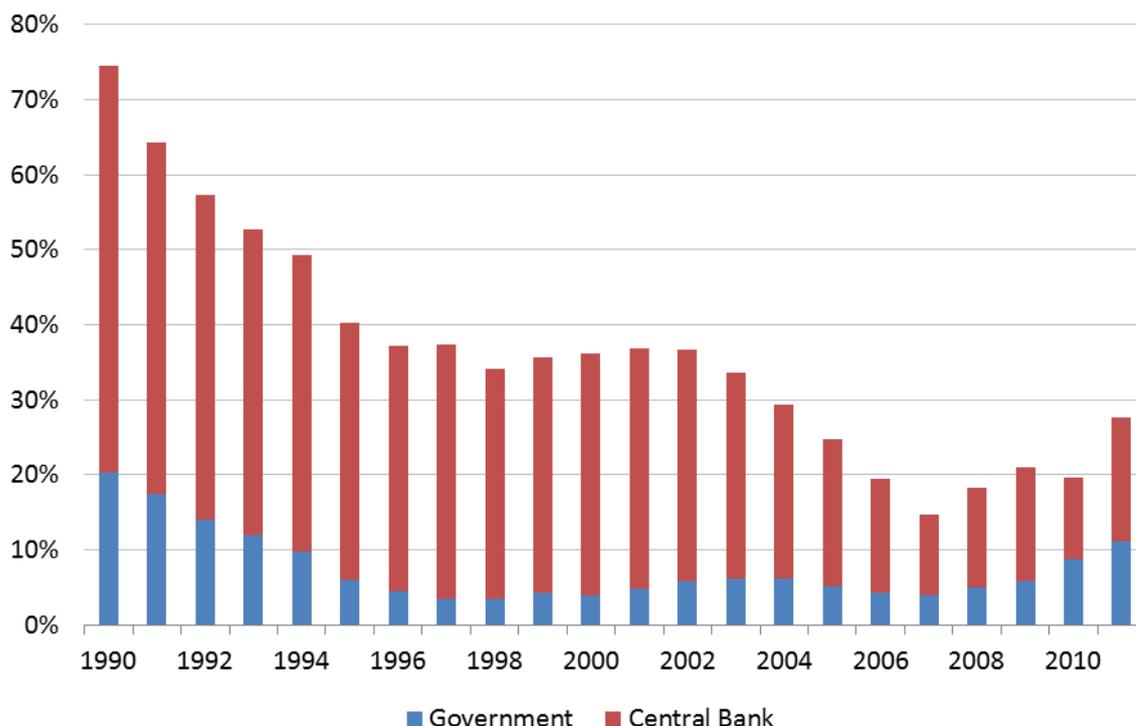
As mentioned, a large share of Chile's current stock of public debt was issued by the central bank (Figure 1). This debt reflects in part the operations implemented after the financial crisis of 1982, when the monetary authority issued large amounts of bonds in order to finance the rescue of the Chilean financial system. In this sense, although registered on the CBC'S balance sheet, this debt has a fiscal origin. More precisely, the central bank acted on behalf of the fiscal authority in order to provide liquidity and to recapitalise the banking system at a time when the monetary authority lacked autonomy. Later, when the central bank was granted autonomy at the end of the 1980s and the size of its capital was defined, the value of the liabilities arising from the financial rescue were not fully recognised in its balance sheet.

Another significant share of the public debt issued by the CBC is related to the sterilisation of its massive accumulation of international reserves throughout the 1990s, just prior to the Asian crisis. This build-up occurred in the context of large capital inflows to the country, during a period in which the CBC maintained a target zone for the exchange rate.

Since the start of the last decade, total public debt as a share of GDP began to fall, declining from about 37% of GDP in 2001 to 27% of GDP in 2011. The main reason was the end of the CBC's massive accumulation of reserves. Without the large capital inflows of the 1990s, and after the target zone for the exchange rate band had been abandoned, the monetary authority stopped systematically intervening in the exchange market, obviating the need to sterilise such interventions. Nominal debt stabilised and, thanks to sustained growth, started to fall as a share of GDP. In 2011, due to an extraordinary programme of reserves accumulation and the corresponding sterilisation, the CBC's debt went from around 10% of GDP in 2010 to 16% of GDP by the end of 2011.

Government debt has remained more or less stable over the last 15 years, oscillating between 5% and 10% of GDP. It has increased in recent years due to explicit policy objectives to establish benchmarks for risk-free securities prices, and also to diversify the currency composition of public funding. In the next section, we discuss Chile's fiscal policy in greater depth and how it has determined the evolution of the government's debt. Then, we analyse the case of monetary policy.

Figure 1  
**Chile's public debt owed to the private sector**  
 % of GDP



Sources: Central Bank of Chile and DIPRES (Budget Office).

### III. Fiscal policy and public debt

Over the past several decades, the Chilean government has managed its fiscal policy rather conservatively, with positive balances in 14 out of the last 21 years. As a result, large stocks of public assets have been accumulated and the government has needed to issue only relatively small amounts of public debt to finance its operations and roll over existing debt.

Chile's prudent approach to the conduct of public finance was institutionalised in 2006 by the Fiscal Responsibility Act. This legislation obliges the government to adopt an explicit fiscal target for its structural budget so as to keep fiscal expenditure in line with long-term or structural fiscal revenues. A fiscal rule had previously been established, in 2001, albeit without any binding commitment. Since the adoption of this rule – and against the backdrop of a large terms-of-trade windfall – the government's net position has improved considerably, moving from a net debtor to a net creditor position. However, since 2003, the Treasury has made some significant public debt issuances, both domestically and internationally, with the aim of adding liquidity to the domestic bond market, helping to establish benchmark prices and diversify public financing sources. In addition, these domestic currency issuances have obviated the need for the government to immediately liquidate all the revenues it receives in foreign currency.<sup>2</sup>

<sup>2</sup> The Chilean government has a structural currency mismatch between its revenues and its expenditures. A significant part of its revenues are denominated in foreign currency while most of its expenditures are in local currency.

Since 2001, Chile's fiscal policy has been guided by a fiscal rule based on the concept of the structural balance. In Chile, government revenues are influenced not only by the level of economic activity but also by the price of copper and other minerals.<sup>3</sup> With the main goal of smoothing fiscal policy over a medium-term horizon, government expenditure is set each year at a level compatible with a target for the structural balance, where revenues are adjusted according to the cyclical position of the economy and copper price deviations from the metal's long-run value.<sup>4</sup>

Shortly after the implementation of the structural budget fiscal rule in 2001, the government mandated two independent committees to provide the key variables on which the structural balance is computed: trend GDP and the reference or long-run price of copper. In 2006, the Fiscal Responsibility Act was enacted, further strengthening the fiscal rule by requiring each incoming government to (i) announce its target for the structural balance during its term; (ii) estimate the expected outcome of its fiscal policy on the structural balance for the public budget law; and (iii) annually report the actual outcome of the structural balance.

Between 2001 and 2006, the target for the structural balance was set at 1% of GDP. Then, for 2007 and 2008, the target was reduced to 0.5% of GDP and in 2009 it was originally set at 0% of GDP. During this period, expenditures moved in tandem with structural revenues and the government successfully met its target, except in 2008. In 2009, an escape clause was put in place so that a countercyclical fiscal policy could be implemented that would support aggregate demand in response to the global financial crisis. During that year, the structural deficit amounted to 3% of GDP. In 2010 and 2011, it was reduced but remains sizeable (Table 1). The present administration has announced that it expects to bring the structural deficit back to 1% of GDP by 2014.

Table 1  
Public balance  
% of GDP

	Expenditure	Revenues	Effective balance	Structural revenues	Structural balance
2001	22.3	21.8	-0.5	23.4	1.1
2002	22.3	21.1	-1.2	23.2	0.8
2003	21.1	20.7	-0.5	22.0	0.8
2004	19.9	22.0	2.1	21.0	1.0
2005	19.3	23.8	4.6	20.4	1.1
2006	18.1	25.8	7.7	19.5	1.4
2007	18.7	26.9	8.2	19.8	1.1
2008	21.2	25.5	4.3	20.4	-0.8
2009	24.8	20.4	-4.5	21.9	-3.0
2010	23.4	22.9	-0.4	21.3	-2.0
2011 (*)	23.3	24.5	1.2	21.7	-1.6

(\*) Estimated. Source: DIPRES (2011).

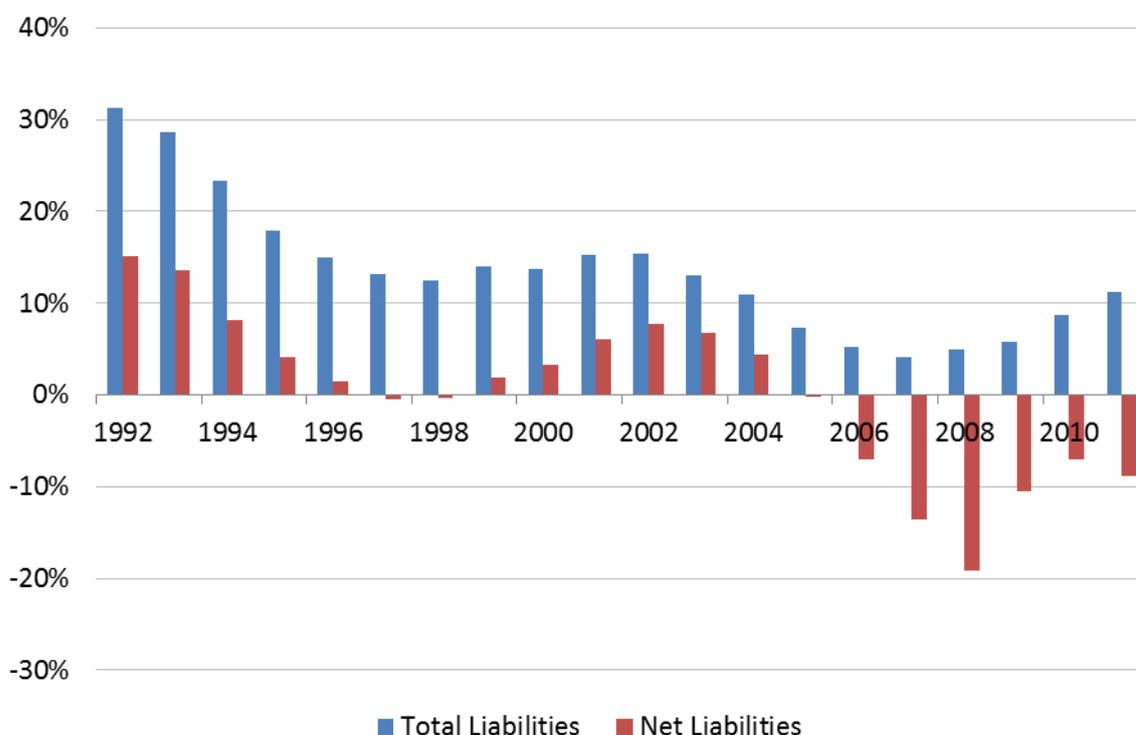
<sup>3</sup> Income from copper and other minerals greatly influences revenues accrued through the profits of Codelco, the state-owned mining company, and from taxes on private mining companies, which started to make significant profits in 2005.

<sup>4</sup> The current fiscal rule evolved from previous attempts to insulate fiscal policy from copper price fluctuations. A Copper Stabilisation Fund was set up as early as 1985 in order to help smooth public revenues.

Despite the fiscal expansion of 2009 and the subsequent public deficit in 2010, the government's net position is still positive. During the 1990s, net liabilities were reduced systematically until the Asian crisis hit. After that episode, the government posted deficits until 2003 with a consequent increase in net liabilities. Then, from 2005 onwards, the government's net position turned positive. Currently, its net assets amount to slightly less than 10% of GDP (Figure 2).

When the net position of the government became positive, two sovereign funds were created: the Pension Reserve Fund (PRF) established at the end of 2006 to fund fiscal pension obligations, and the Economic and Social Stabilisation Fund (ESSF), set up in early 2007 to help cover fiscal deficits and/or repay public debt. Given its experience in managing Chile's international reserves, the operation of the two funds was delegated to the Central Bank of Chile.<sup>5</sup> In addition, an independent Financial Committee was set up to advise on investment policy. By March 2012, the two funds held aggregate assets of slightly more than USD 19 billion.

Figure 2  
**Total and net liabilities of the central government**  
 % GDP



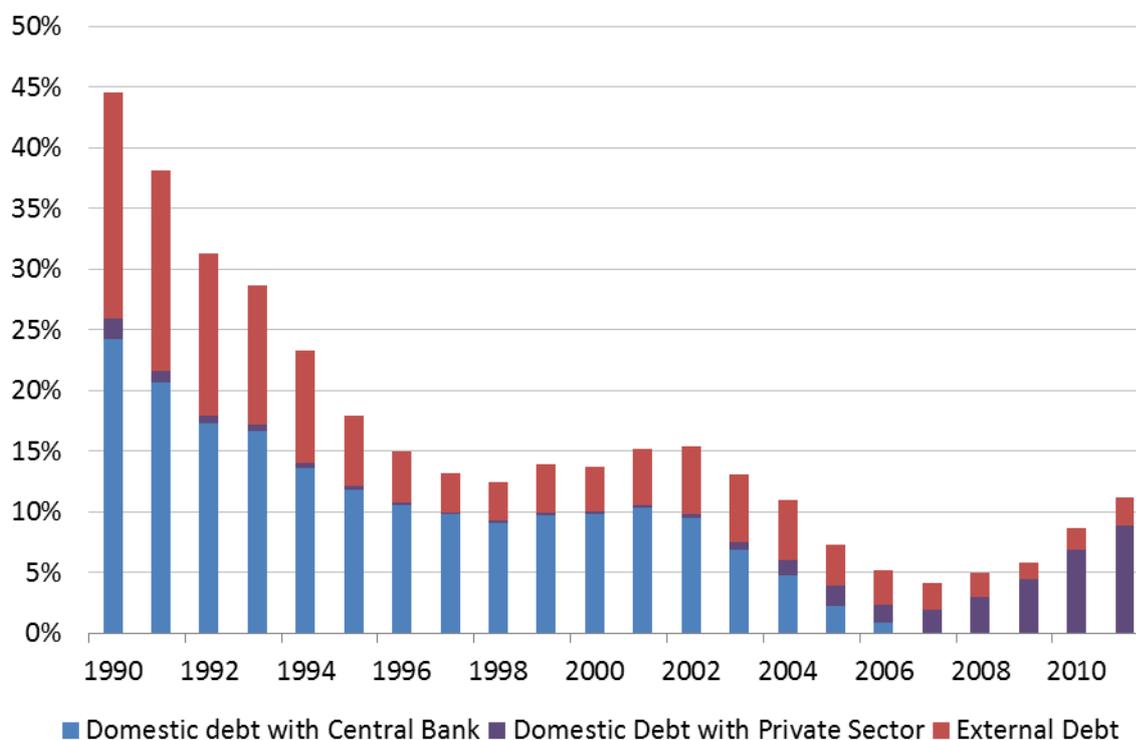
Source: DIPRES and Chile's Ministry of Finance.

As mentioned above, the government has regularly issued domestic bonds since 2003 regardless of its net creditor position. Two types of bonds have been sold: nominal bonds (Bono Tesorería en Pesos, BTP) and inflation-indexed bonds (Bono Tesorería UF, BTU). The stated aim of these issuances is to enhance bond market liquidity in Chile by setting

<sup>5</sup> The central bank acts as the government's fiscal agent for the placement of bonds in the local market and their administration.

benchmarks to complete the yield curve. Most of the issuances have been at the long end of the yield curve.<sup>6</sup> As a result, domestic public debt held by the private sector has risen from about 1% of GDP in 2004 to almost 9% of GDP at the end of 2011 (Figure 3).

Figure 3  
**Government domestic and external debt**  
 % GDP

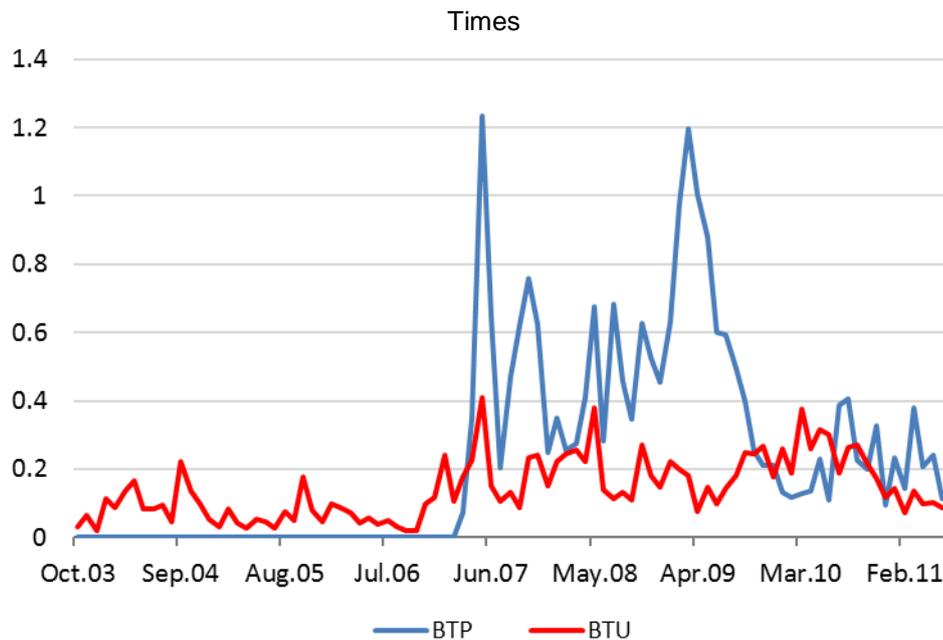


Source: DIPRES.

The market has considered these bonds to be risk-free instruments, similar to those of the central bank. Turnover has been sizeable, in particular for the nominal bonds or BTP (see Figure 4).

<sup>6</sup> In 2003, the Ministry of Finance issued a BTU with a 20-year maturity. Then, together with the 20-year maturity bonds, it issued a BTP and a BTU with 10-year maturities. In 2008 and 2010, BTUs of seven- and 30-year maturities were issued. In 2011, a seven-year BTP was issued.

Figure 4  
**Monthly turnover of Treasury bonds**



Source: Central Bank of Chile and Ministry of Finance.

#### IV. Monetary policy and public debt

The central bank was granted full autonomy in 1989. This means that the institution has its own legal status, independent of the government. The new constitutional law – Law 18 840 of October 1989 – provides for the central bank’s independence in technical and financial terms, and defines its objectives as follows: to ensure the currency’s stability and the normal functioning of domestic and foreign payments. One of the key aspects of the new constitutional law is that it prohibits any form of financing of the government by the monetary authority, except in extreme circumstances such as war or national emergency.

In this context, coordination between monetary and fiscal policy is key for the proper functioning of the economy. One benefit of Chile’s fiscal rule is that it simplifies the task of policy coordination between the fiscal and monetary authorities. The central bank follows a flexible inflation targeting approach in conducting its monetary policy so that expected inflation plays a central role in defining monetary policy. For its part, the fiscal rule provides a predictable fiscal stance over a medium-term horizon. Thus, in making the projections on which monetary policy is based, the central bank can take as given the path for public expenditure that is consistent with the fiscal rule. Another dimension of the coordination between fiscal and monetary authorities is related to their respective debt policies. The Ministry of Finance and the central bank annually coordinate their debt issuance for the year, bearing in mind, among other aims, the need to promote the development of the local financial market.

To meet its inflation target, the central bank uses the overnight nominal interest rate as its main policy instrument. It sets a notional level for the monetary policy rate (MPR), and then adjusts market liquidity to bring the overnight interbank interest rate to around that level. It offers permanent overnight borrowing and lending liquidity facilities to commercial banks with a view to keeping the interbank lending rate close to the MPR. The central bank favours a policy of non-intervention in the interbank market. However, when liquidity pressures cause the overnight interbank interest rate to move significantly away from the MPR, the central

bank uses a range of instruments to accommodate liquidity. The main tools are traditional repo operations, where the central bank purchases its own securities with a buy-back clause for the next working day. These securities are discount promissory notes (PDBC) due in 30 to 360 days, nominal bonds with maturities of two, five and 10 years (BCP2, BCP5 and BCP10 respectively), and inflation-indexed bonds with maturities of five and 10 years (BCU5 and BCU10).

In addition to traditional repo operations, the central bank regularly performs open market operations, issuing short-term securities with the aim of supporting the smooth functioning of the money markets. The issuance of these securities is determined and pre-announced on a monthly basis. Other mechanisms to provide peso and dollar liquidity are also available. Some of them were used extensively during the 2008–09 financial crisis (see Annex A).

The issuance of the long-term securities that represent the bulk of central bank liabilities is done in such a way as to accommodate the increase in demand for monetary base. To define the size and composition of long-term debt issuance, an annual calendar sets out the securities falling due in more than one year and money demand increases are estimated. Hence, the net increase in money demand roughly corresponds to the net value of securities that are not re-issued. This programme interacts with the short-term security issuance programme in order to adequately manage liquidity at different maturities. This programme is pre-announced annually, but the central bank explicitly states that it may be subject to modification if conditions change.

Naturally, commercial banks account for a large part of demand for debt securities issued by the central bank. But a significant share of demand also comes from pension funds and insurance companies, which are typically “buy and hold” investors. This affects the turnover in secondary markets, so that bid-to-cover ratios vary from around 2.2 for nominal bonds to 2.7 for inflation-indexed bonds.

A long history of inflation in Chile explains the prevalence of indexation in most long-term issuance. However, since 2000, efforts have been made to issue nominal bonds. One reason to issue nominal bonds was to provide benchmarks with the aim of deepening the market (Table 2).

Table 2  
Evolution of the debt stock by currency and term

	Dec'02	Dec'03	Dec'04	Dec'05	Dec'06	Dec'07	Dec'08	Dec'09	Mar'10	Jun'10	Sep'10	Dec'10	Jun'11
<b>Short debt (under 1 year)</b>													
Total CBDN	6,307	4,264	3,457	4,096	3,648	2,178	2,289	7,213	8,122	4,770	6,140	3,355	6,140
<b>Long debt (over 1 year)</b>													
CBP	772	3,148	3,711	3,457	3,680	4,090	4,432	3,751	3,921	4,479	4,584	4,543	6,018
CBU	606	2,458	3,276	4,008	4,770	5,203	11,015	9,773	9,414	4,479	7,572	8,209	12,656
Other inflation-linked	15,551	12,504	10,283	8,142	6,447	5,875	3,454	2,749	2,477	2,321	2,161	1,777	1,572
USD	5,868	6,270	5,519	3,288	790	435							
Total bonds	22,797	24,380	22,789	18,895	15,687	15,603	18,901	16,273	15,812	11,278	14,317	14,529	20,247
Peso long debt (%)	3%	13%	16%	18%	23%	26%	23%	23%	25%	40%	32%	31%	30%
Inflation-linked long debt (%)	71%	61%	59%	64%	72%	71%	77%	77%	75%	60%	68%	69%	70%
USD long debt (%)	26%	26%	24%	17%	5%	3%							
<b>TOTAL DEBT CBC</b>	<b>29,103</b>	<b>28,644</b>	<b>26,246</b>	<b>22,992</b>	<b>19,335</b>	<b>17,780</b>	<b>21,189</b>	<b>23,486</b>	<b>23,933</b>	<b>16,048</b>	<b>20,457</b>	<b>17,884</b>	<b>26,387</b>
% Short debt	22%	15%	13%	18%	19%	12%	11%	31%	34%	30%	30%	19%	23%
% Long debt	78%	85%	87%	82%	81%	88%	89%	69%	66%	70%	70%	81%	77%
Peso total (%)	24%	26%	27%	33%	38%	35%	32%	47%	50%	58%	52%	44%	46%
Inflation-linked total (%)	56%	52%	52%	53%	58%	62%	68%	53%	50%	42%	48%	56%	54%
USD total (%)	20%	22%	21%	14%	4%	2%							
<b>Remaining maturity (years)</b>													
Short debt	0.35	0.17	0.09	0.10	0.10	0.08	0.24	0.10	0.06	0.13	0.18	0.22	0.08
Long debt	3.66	3.42	3.23	3.47	3.59	3.28	4.76	4.10	3.97	3.88	4.14	4.05	5.48
<b>Total CBC debt</b>	<b>2.94</b>	<b>2.94</b>	<b>2.82</b>	<b>2.86</b>	<b>2.93</b>	<b>3.28</b>	<b>4.27</b>	<b>2.87</b>	<b>2.64</b>	<b>2.77</b>	<b>2.95</b>	<b>3.33</b>	<b>4.22</b>

Calculated with parities \$/USD 500 and \$/UF21,000.

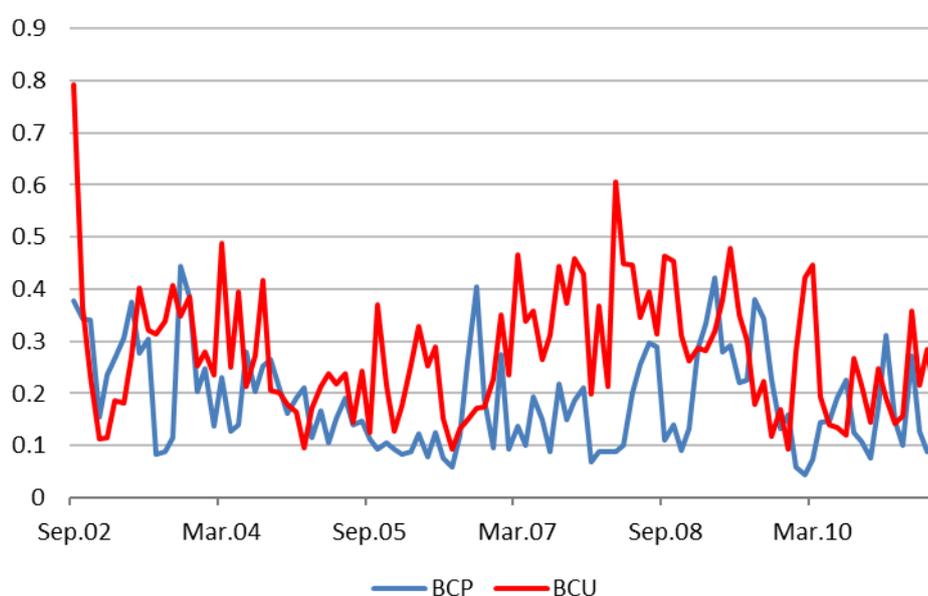
One implication of the large stock of public debt issued by the central bank is that its balance sheet is weak. As mentioned above, part of the debt was issued to finance the rescue of the

financial system at the end of the 1990s. But the return on the assets the bank received in exchange has been on average lower than the return on the bonds issued. In the case of the debt issued to sterilise the reserve accumulation, the return on international reserves has been also lower than the debt issued. As a result, the central bank's net worth has usually been negative since the mid-1990s. At the end of 2011, the bank's negative net worth position was equivalent to an estimated 3.5% of GDP.

However, this has not proved to be a problem for the conduct of monetary policy. The central bank has successfully issued domestic debt to manage liquidity in order to keep the monetary policy rate at its target level. Moreover, the debt issued by the central bank is considered to be a relatively risk-free asset. In fact, the monthly turnover of central bank's securities is relatively high, reflecting their liquidity (Figure 5).

The reasons for this are manifold: first the government – which is perceived by the market as the guarantor of the central bank – has a strong financial position and is expected to remain that way in part due to the fiscal rule. Second, the adoption of the pay-as-you-go principle for the pension system has deepened the financial system and increased the demand for safe assets, including central bank securities. Third, banking and financial sector regulation and supervision have improved considerably since the banking reforms in the mid-1980s. This has helped to keep the risk of financial crises relatively low. Finally, despite its negative net worth position, the central bank has run a primary surplus due to gains from the inflation tax, low non-financial costs and the absence of quasi-fiscal commitments. Moreover, in the long run, thanks to the expansion of the monetary base, it is expected that the central bank's net worth will eventually become positive (see Restrepo et al (2009)).<sup>7</sup> In sum, the government's solvency along with financial institutional developments has allowed the central bank's debt to be rolled over without difficulty.

Figure 5  
**Monthly turnover of central bank bonds**  
 Times



Source: Central Bank of Chile.

<sup>7</sup> J Restrepo, L Salomó and R Valdés, "Macroeconomía, Política Monetaria y Patrimonio del Banco Central de Chile", *Revista Economía Chilena*, 12(1), April 2009. This paper's baseline forecast calls for the central bank's net worth to return to the positive domain in about 25 years.

**Annex A:**  
**Policy actions taken by the Central Bank of Chile**  
**during the 2008–09 crises.**

<b>Peso Financial Facilities</b>			
<b>Fecha</b>	<b>Actions</b>	<b>Elegible Collateral</b>	<b>Actions Duration</b>
Sep. 29 2008	Repo 28 days	Central Bank Bonds	
Oct. 10 2008	Repo 28 days Repo 7 days	Central Bank Bonds Bank Deposits	6 months 6 months
Dec. 10 2008	Repo 28 days Repo 7 and 28 days LCC (Line of Credit Collateralized)	Central Bank Bonds Bank Deposits Central Bank Bonds, Treasury Bonds	All 2009 All 2009 Indeterminate
Jul. 09 2009	Term Liquidity Facility (TLF) 3 and 6 months	Central Bank Bonds, Treasury Bonds, Mortgage Bills and Bank Deposits	Indeterminate
Nov. 18 2009	TLF 63 and 154 days, with further reductions of 30 days	Central Bank Bonds, Treasury Bonds, Mortgage Bills and Bank Deposits	Dic 14 th 2009 - May 2010

<b>US Dollar Financial Facilities</b>				
<b>Fecha</b>	<b>Actions</b>	<b>Amounts</b>	<b>Program Duration</b>	<b>Rate</b>
Sep. 29 2008	Swap 28 days	500 million dollars per week. Total of USD 2.000 million		libor + 100bp
Oct. 03 2008	Swap 28 days	500 million dollars per week. Total of USD 1.500 million	3 weeks	libor + 100bp
Oct. 09 2008	Foreign Currency Reserve		9 Oct'08 - 8 Apr'09	
Oct. 10 2008	Swap 60 and 90 days	500 million dollars per week. Total of USD 5.000 million	6 months	libor + 100bp
Dec. 03 2008	Swap 60, 90 and 180 days		December'08	
Dec. 10 2008	Swap 60, 90 and 180 days		All 2009	
Apr. 07 2009	Foreign Currency Reserve		Apr'09 - Feb'10	