

Structural Balance Policy in Chile: What has been done and what has been learnt

Why a Structural Balance Rule? The Issues Deficit Bias and Procyclical Spending

Resource-rich economies face additional challenges to implement sound fiscal policies that will assist their development. One of the key elements in this difficulty is the cyclical nature of commodity prices: sudden booms in prices that generate an inflow of resources for the economy, which in developing countries can be substantial relative to the total tax income, followed by sudden reversions when the commodity cycle is over. This generates on one hand a prevalent **fiscal deficit bias**¹: the uncertainty of both electoral results and of the length of the commodity cycles gives governments an incentive to deplete net assets on average over the long term, this is going to happen even when standard smoothing consumption considerations suggest otherwise.

Additionally, empirical evidence demonstrates that the conventional wisdom of fiscal saving in booms and additional spending on recessions has not been followed in practice. The weight that commodities have on the economies of developing resource-rich economies only exacerbates the problem, borrowing constraints are relaxed during booms and capital inflows also increase as investment projects become more attractive, thus generating procyclical fiscal spending. In this scenario it just becomes too tempting for governments to use that additional credit capacity only to see it disappear when commodity prices collapse.

The Solution: Institutional Changes

Overcoming these issues is necessary if governments want to increase the social benefit arising from the extraction of natural resources, for example by financing long term social policies in a sustainable way. To achieve this, it is necessary to introduce institutional changes focused on²:

- Reducing policy-making fragmentation, by giving more authority about budget limits to central authorities (in lieu of regional governments), more attributions to the Finance Minister against spending ministers, and finally tipping the balance on the budget process to the executive power versus the legislature.
- Adopting fiscal rules that limit fiscal expenditure over the commodity cycle.

In the following report we will show how the structural balance policy in Chile has worked together with some considerations about the implementation of this policy.

Structural Balance Policy in Chile

*Background*³

Having started formally in 2001, the structural balance policy in Chile attempts to transfer the medium-term fiscal outlook into the country's budgetary process. For that to happen, it must estimate the fiscal income that would be obtained net of the impact of the economic cycle so that the expenditures are compatible with this level of income.

¹ Cf. Alesina and Perrotti (1995).

² Cf. Velasco (2011).

³ Cf. Rodríguez, Tokman and Vega (2007).

Although having started 11 years ago, the institutional changes required to make this structural balance policy functional were put in place progressively in time; below there is a brief description of what was done in that respect.

Institutional Changes 1: Reducing Political Fragmentation

The design of the budgeting process has been the main instrument used to align long term fiscal priorities and curb pork-barrelling in the congress. Under Chilean law, the parliament may only decrease expenditures for any programme the government proposes, without increasing expenditures or reallocating expenditures between programmes. Moreover, even if no agreement is reached between the legislature and the executive, the constitution mandates that the government's initial proposal becomes law, which generates even less incentives for a legislature to block an austere budget proposal. As OECD's Chile budgeting report says⁴ 'it simply appears to be accepted across the political spectrum that the Congress would act irresponsibly in the budget arena if it were given any substantive power.'

In addition to this, Chile features a substantially centralised revenue authority, in the past 10 years; central government has never been responsible of raising less than 86% of annual fiscal income⁵; and all corporate profit tax as well as sales tax go through the national tax authority.

Institutional Changes 2: Balancing Income from Copper

Copper constitutes around 60% of Chile's exports, and for that reason the nation's budget is hugely dependent on the volatility of its price. To introduce some degree of stability into the fiscal income stream a compensation fund (the '*Fondo de Compensación del Precio del Cobre*') was introduced in 1985. Basically it consisted on a fund where half of the surplus income from copper was allocated; this surplus was defined as all the income coming from the difference between the long-term price and current observed price. This fund was symmetric, so that equivalent funds were disinvested if prices reversed

Even though this fund introduced a cyclical adjustment to public finances it was placed only to regulate fiscal policy and not to anchor it to a specific goal, which limited its usefulness as a policy tool.

The structural balance indicator

Creating a structural balance policy

In the decade preceding the implementation of the structural balance policy, Chile showed good fiscal discipline, with more surpluses than deficits and with a continuous decrease in its public debt. However, the simple stabilisation rule for copper had to be updated, given that⁶

- a) There was no longer-term framework for fiscal policy.
- b) Additionally, the state was assuming more long-term liabilities, as public works contracts and the expansion of state-funded pensions.
- c) And finally, that the absence of a declared policy allowed for an ongoing discussion about the appropriate level of spending.

The structural balance policy, therefore, had to tackle these issues; especially the last one, which required a rule that was simple in order to frame public discussion easily.

⁴ Blöndal & Curristine (2004).

⁵ According to Dipres (2011).

⁶ Cf. Velasco (2011).

The result is a structural balance indicator that nets out the cyclical impact of three variables: *Trend GDP growth*, and the *prices of copper and molybdenum* (closely associated with copper extraction), in such a way that the structural balance reflects the financial results that the government would have had if the GDP growth had been at its trend level and copper and molybdenum prices at their long-term level.

The Role of Independent Committees

Empirical evidence⁷ shows that when the forecast of sensitive variables in the budget process is left to the government, predictions tend to be overly optimistic; for that reason, copper price projection and the long term GDP trend were delegated to independent committees.

In the case of the GDP trend, the forecast is done indirectly according to IMF guidelines⁸, which corresponds to the estimation of a production function for the economy. Experts provide their five-year forecasts for the determinants of a Cobb-Douglas production function to obtain underlying potential output. Both the GDP trend as well as the expected difference between the trend and the expected effective GDP are mentioned explicitly in a report.

The long term estimation on the price of copper is made by another committee; COHILCO, the government's copper studies agency provides each member of the committee with data regarding consumption, production, inventories and prices as well as with a three year price projection. COHILCO also elaborates its own long-term copper price projection and estimations on the metal's consumption, costs and production, again. All the data of the estimations are detailed explicitly in a report.

Finally, in the case of molybdenum, the absence of a specific committee was replaced with a reference price equal to the seven-year moving average. This is at best a non discretionary assumption, but the government expects to have a committee analogous to the one for copper once the market for the metal becomes deeper, and the number of experts in the country increases.

In addition to this, income and expenditure were also cyclically adjusted to take into account non-mining tax revenues and social security payments.

Setting a goal

Once the structural long term income is determined, a target must be chosen. In the case of Chile this was initially equivalent to target a structural surplus of 1% of GDP, not really a balanced budget, this was done in order to get additional resources to recapitalise the Central Bank, to face contingent liabilities related with state-guaranteed pensions and to give some space for currency mismatches.

The target has been explicitly revised twice since 2001, first to a 0.5% surplus in 2008 and then to balanced budget (0% surplus) in 2009 when crisis hit the country.

Starting the rule – Political consensus

An appropriate timing helped when it was necessary to achieve the approval from the legislature. When the idea of an explicit fiscal rule was introduced in 2001, the country was coming out from a mild recession that was augmented by fiscal and monetary adjustment, the idea of mitigating future incidents like this sounded appealing. Also, low prices of copper at that time implied that the structural balance allowed the government to run a moderate deficit in the following years:

⁷ Frankel (2011).

⁸ Hagemann (1999).

political consensus was achieved because at that moment the implementation of this kind of rule did not impose a curb on current spending.

Managing a sovereign wealth fund

Fiscal surplus originated from this rule has to be stocked in foreign currency to prevent unwanted appreciation of national currency, in the Chilean case the funds are allocated so that⁹:

- a) 0,2% to 0.5% of GDP goes to the pension reserve fund;
- b) 0.5% went initially to help recapitalise the central bank;
- c) The rest goes to the social and economic stabilisation fund.

The structure of the fund must allow drawing resources easily if required; therefore the portfolio composition is going to be different than a standard long term portfolio like in the Norwegian case.

Increasing the Complexity of the rule

As large-scale private mining industry gained importance for the tax authority, it became apparent that additional effort was required to forecast the long-term income from private activities. In the same way, the price of molybdenum multiplied by 6 in the past decade, which turned it from an irrelevant by-product of copper exploitation into nearly 6% of the taxation for minerals.

This has meant that there has been an ongoing process of adapting the policy, while making it more complex so that it reflects the different components of income cyclicity.

However, this ongoing modification of the methodology is not without its own risks. A good example of what can go wrong is what happened during 2009's recession in Chile. Then, the Chilean government adopted a series of transitory tax cuts, together with focalised benefits, to stimulate the economy. As a result, these measures decreased the tax income for that year: the ministry of finance took the decision to exempt those transitory measures from the calculations of the structural balance which allowed for increased fiscal expenditure.

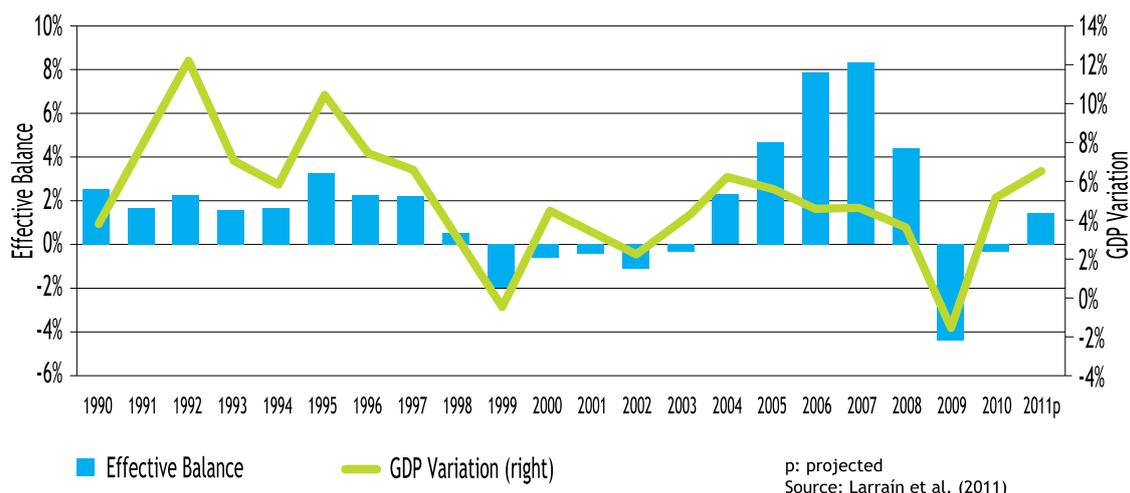
This increased fiscal expenditure during 2009 helped to overcome the recession that year, though it left open a regulatory loophole that could be easily misused by governments, it just required that a bigger part of the budget was declared to be a 'transitory measure'. For that reason, new guidelines have abolished the distinction between transitory and permanent tax modifications; this allows year-to-year structural balances to be comparable.

One of the consequences of new regulation is that now, in order to make aggressive counter cyclical stimulus the government must make an explicit departure from the structural goal, a deviation that needs to be clearly justified in terms of its length and consequences.

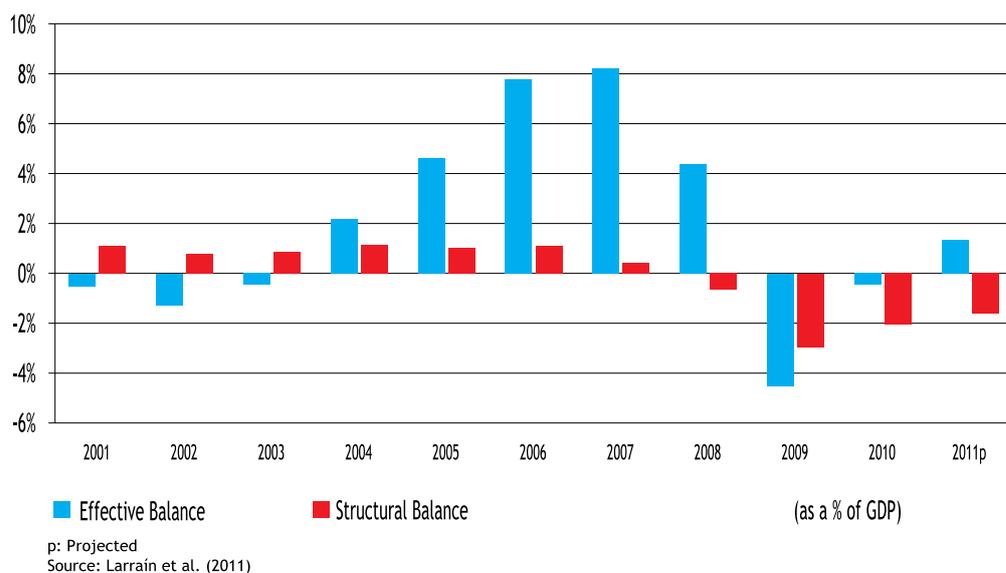
Results

Though since 1990 the government had kept fiscal discipline, real decoupling of the effective balance and the GDP growth occurred only after the fiscal rule was established, as can be seen in the graph below.

⁹ Velasco (2011).



It is interesting to notice also the relation between the structural balance and the effective balance, please notice that throughout the first decade of the 2000s the structural balance remained almost constant while allowing for the accumulation of funds in an SWF.



When crisis fell on 2009 there was ample room for a countercyclical impulse to the economy, and that's why the structural balance fell so strongly. The stimulus itself was equivalent to 2.8% of GDP, with additional spending in infrastructure and transfer to poorer households, together with temporary tax cuts that benefited mostly small and medium enterprises. The fact that there were enough resources to fund this stimulus meant that interest rates could be kept low, thus giving an additional monetary stimulus.

This stimulus was to be transitory; however in 2010 a massive earthquake and tsunami struck Chile, causing estimated damages of around 4.2% of GDP. To finance reconstruction, the new government in place adopted a series of measures that implied an explicit departure from the 0% surplus target. The ministry of finance has maintained the structural balance rule but it has used a moving target converging to a 1% structural deficit in 2014.

This transitory target allows keeping the structural budget comparable on a year-to-year basis (there are no further modifications to the methodology) and guarantees that the reconstruction can be financed in a sustainable manner. Given that copper prices are substantially above their long term average, a moderate structural deficit has in fact implied a surplus in 2011 and on the expected 2012 effective budgets

Benefits of the system

Among the benefits that this rule has brought are

- Has decreased fiscal policy's procyclical nature, thus decreasing the volatility of production.
- Has increased public savings during booms, allowing for counter cyclical policies during recession without compromising solvency.
- Has reduced interest rate volatility.
- Has increased the credibility of the Chilean state, and of the country as a debt issuer in international markets.
- Has allowed the export sector to retain competitiveness, by keeping a more competitive and less volatile real exchange rate, than it would have been had the state spent transitory incomes.
- Has reduced the need to resort to international financial markets.
- Has assured the sustainability of long term social policies.

Some Recommendations

Flexibility with consensus

The structural balance rule creates automatic stabilisers into the budget allowing a counter cyclical fiscal policy. However, these same stabilisers can be insufficient in the case of high magnitude shocks to the economy. For Chile, both the 2009 economic crisis and 2010 earthquake and tsunami were cases in which the economy required more stimulus than the automatic stabilisers could provide on their own. In these cases the marginal propensity to spend saved assets is much higher and therefore providing an escape clause for the fiscal rule is welfare enhancing¹⁰ and so it makes economic sense.

In order to avoid excessive discretion about when this escape clause is invoked, a good measure is to make any departure from the fiscal rule to be justified by an economic report that at least mentions¹¹:

- The nature and the magnitude of the shocks that are going to be faced.
- For how long the fiscal rule is going to be modified
- The path to convergence

Creation of an institutional framework for the committees

In the case of Chile, a Fiscal Council has just been created with the specific task of guaranteeing the independence and the soundness of the structural balance process. Among the objectives of this council are the following:

- Participate in the committees setting the GDP Trend and the long term price of copper, and confirm the estimations being made there,
- Verifying that these variables are properly used in the ex post assessment of the structural budget,

¹⁰ Engel, Neilson and Valdés (2011).

¹¹ Larraín et al. (2011).

- Advise the Finance Minister on the specific issues concerning the structural balance rule,
- Discuss possible methodological changes, if asked by the government,
- And assess medium term projections of structural budget.

Explicit escape clauses

As was seen above, it is necessary to leave some room for flexibility when facing a recession. However, even with an independent committee the government retains some discretionary power to determine when the fiscal rule is going to be determined

A solution to this is to establish an escape clause that can only operate if the gap between Trend GDP and effective GDP is wider than a pre specified magnitude. In their recommendations for a reform of the structural balance rule, Corbo et al. (2011), point out that this setting prevents the government from invoking ad hoc escape clauses for the fiscal rule when there is a mild recession that can be dealt appropriately with automatic stabilisers¹². Additionally, it has the advantage of being symmetric, implying that it would be easier for a government to raise its yearly surplus target (i.e. to save more) if the price conditions are extremely favourable.

Engel et al. (2011) conclude that a well crafted rule that allows for more spending in deep recessions (and more saving in commodity booms) could provide the same welfare as doubling the amount of natural resources available.

The Road Ahead

Transparency and simplicity

One of the reasons a structurally balanced budget is helpful is that it helps governments to contain expenditure demands from the wider public. Therefore it is crucial that the rule is kept simple enough so that the general public can understand it.

Moreover, the communicational emphasis needs to be put on those parameters that need to be known more widely. In the case of Chile, excessive fluctuations in the price of copper usually feature on the press, whereas the current level of fiscal spending is not. Therefore, in those situations when the price of copper is unusually high, the government must stress its adherence to a fiscal rule that will protect existing social services in case of a downturn in prices.

Facing resource exhaustion

This structural balance rule assumes that additional income from natural resources is going to remain indefinitely, and therefore all the accumulated funds are saved with the idea of exhausting them in case of a severe recession. It could be argued, however, that the same consumption smoothing argument can be applied to the longer term when there are no more resources to extract. This issue has not been dealt with in the Chilean structural balance rule; it is a topic on which there is an expanding literature and that it must definitely be tackled to allow the long term sustainability of the economy.

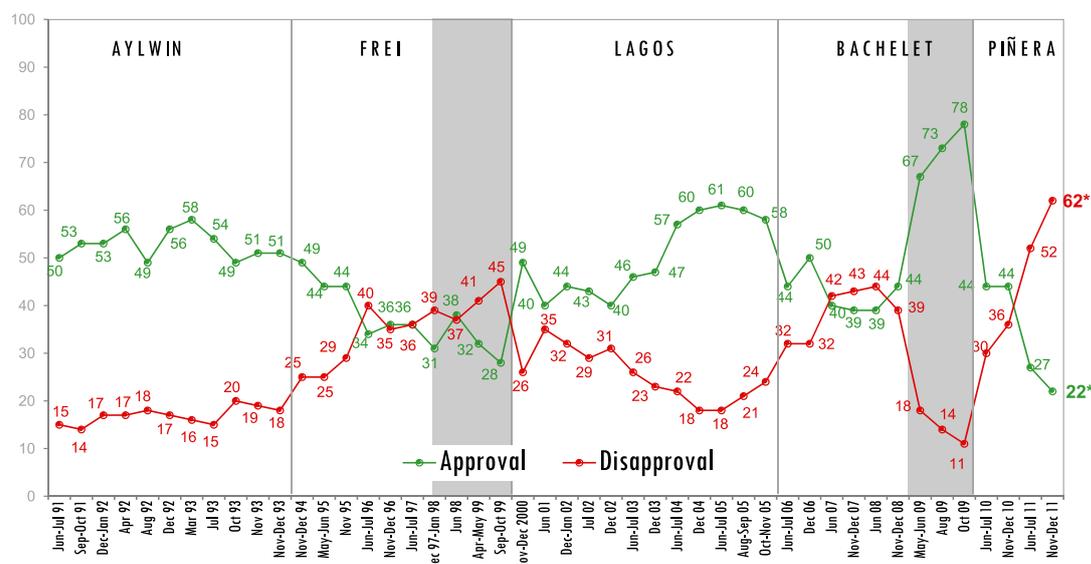
Conclusions

A small aside: Political approval dynamics

One of the consequences of being able to use a fiscal balance rule is that there is the possibility to implement aggressive countercyclical measures in recessions. This has effects on the political

¹² See also Velasco (2010).

approval rates of the executive. In the graph below we can see the rates of approval for each Chilean government since 1990, with recessions highlighted in gray.



Source: Centro de Estudios Públicos (2011)

During the first recession, in the last years of president Frei's administration, the disapproval ratings increased during the recession as a consequence of a jump in unemployment rates. However during a similar external environment, after the 2008 crisis, the Chilean government at the time was able to capitalise the fact that aggressive fiscal stimulus was required, and the public perception agreed and approve these measures.

Therefore, a fiscal balance rule aligns the incentives for the government (who seeks approval) and the public without resorting to populist but unsustainable fiscal policies.

Summary of recommendations

- Timing helps: It is much easier to implement a public fiscal rule if it does not require immediate fiscal cuts in the short term. A path to convergence on the medium term can be a substitute to obtain political approval.
- Avoid optimistic price projections: It is crucial that key economic parameters that influence the structural balance are made by independent committees, and that the procedure to achieve them is known to all.
- Explicit target: The target must be explicit and set beforehand. Even when a countercyclical measure is taken, the departures from this target should be clear.
- Automatic stabilisers may not be enough: Welfare increases if in recessions spending is increased (escape clauses). But it is preferable that these clauses are set clearly beforehand to eliminate the arbitrary departure from the rule.
- Simplicity: Will help people to understand the rules and keep spending pressures at bay (less voracity effect by politicians or by the public).

References

Alesina, A. & R, Perotti (1995). "The Political Economy of Budget Deficits". IMF Staff Papers (March): 1-37.

Blöndal, J.R. & T. Curristine (2004). "Budgeting in Chile". OECD Journal on Budgeting. 2(4):7-45.

- Centro de Estudios Públicos (2011). "Estudio Nacional de Opinión Pública N°65, Noviembre-Diciembre 2011". Presentation of survey results.
- Corbo, V., R. Caballero, M. Marcel, F. Rosende, K. Schmidt-Hebbel, R. Vergara & J. Vial (2011). "Comité Asesor para el Diseño de una Política Fiscal de Balance Estructural de Segunda Generación para Chile - Propuestas Para Perfeccionar la Regla Fiscal". Final Report. June, 2011.
- Dipres (2011). "Estadísticas de las Finanzas Públicas 2001-2010". Dipres, August 2011.
- Engel, E., C. Neilson & R. Valdés (2011). "Chile's Fiscal Rule as a Social Insurance". Central Bank of Chile Working Paper N° 627/May 2011.
- Frankel, J (2011). "A Solution to Fiscal Procyclicality: The Structural Budget Institutions Pioneered by Chile". Central Bank of Chile Working Paper N° 604/January 2011.
- Hagemann, R. (1999). "The Structural Budget Balance. The IMF's Methodology". IMF Working Paper N°95.
- Larraín, F., R. Costa, R. Cerda, M. Villena, A. Tomaselli. (2011). "Una Política Fiscal de Balance Estructural de Segunda Generación para Chile". Estudios de Finanzas Públicas. Dipres, October 2011.
- Rodríguez, J., C. Tokman & A. Vega (2007). "Structural Balance Policy in Chile". Studies in Public Finance. Dipres, December 2007.
- Velasco, A., A. Arenas de Mesa, J. Rodríguez, M. Jorratt & C. Gamboni (2010). "El Enfoque de Balance Estructural en la Política Fiscal en Chile: Resultados, Metodología y Aplicación al Período 2006-2009". Estudios de Finanzas Públicas. Dipres, February 2010.
- Velasco, A. (2011). "Fiscal Policy in an Emerging Market Economy". Presentation, March 2011.