Saving the windfall before the shock

Chile's copper revenues and the structural fiscal rule, 2001-09

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The hook

A copper boom brought Chile money it could spend immediately. Its fiscal framework instead asked how much revenue would persist at a normal level of activity and a long-term copper price. When the global crisis arrived, accumulated savings offered room to respond. The hard decision was how to separate a temporary windfall from a permanent spending promise. [S1-S4]

Abstract

Chile began applying a structural fiscal rule in 2001 to separate sustainable public revenue from fluctuations in economic activity and copper prices. Independent technical inputs, budget procedures and later sovereign funds helped turn the principle into an operating framework. During the copper boom, the government saved rather than converting all temporary receipts into recurring commitments. The global crisis then created a test of whether those buffers could support public spending when revenue weakened. This case distinguishes observed fund withdrawals, announced stimulus and model-based assessments of stabilization. It also examines target changes, estimation uncertainty and the danger of calling every adjustment structural. Chile's experience does not prove that one rule caused national resilience or that saving always dominates urgent investment. For Sri Lanka, the conditional lesson is to connect realistic assumptions, transparent review, debt risks and funded shock responses, rather than copy a copper-based formula or create a fund without resources.

The decision question

When temporary revenue rises, how much should be spent, saved or used to reduce debt? Who decides the normal revenue level, and how can that estimate be challenged?

Independent teaching case. Not an HBS publication. Policy recommendations are labelled judgment. Historical evaluation, not a current forecast of copper prices, Chilean fiscal balances or Sri Lankan public finances.

1. The rule behind the budget

Mario Marcel's original policy account dates the announcement to May 2000. IMF research describes implementation from 2001, initially targeting a structural surplus of 1% of GDP. Announcement and application are distinct dates. The rule aimed to evaluate revenue at potential output and a long-term copper price rather than spend according to the current year's receipts. [S1, S3]

A structural balance is an estimate, not money in a separate bank account. It adjusts the observed budget balance for specified cyclical effects. A positive actual balance in a boom can coexist with a much smaller structural balance; a weak year's actual deficit can coexist with a stronger estimated structural position. Both measures matter, but they answer different questions. [S1, S3]

Exhibit 1. A simplified budget chain

Estimate sustainable revenue. Adjust expected receipts for economic activity and copper prices relative to estimated normal levels.
Choose the structural target. Decide the balance consistent with policy objectives and risks.
Set the spending envelope. Expenditure follows estimated structural revenue minus the target surplus.

This is a conceptual summary of the cited methodology, not a complete reconstruction of every tax, mining and accounting adjustment. Chile's methodology changed over time. The case does not treat all historical calculations as one invariant formula. [S1, S3]

The tradeoff

Spending a windfall can meet real needs now. But if temporary revenue finances permanent obligations, a later reversal can force borrowing, abrupt cuts or new taxes. Saving can protect future services while imposing an opportunity cost on today's investment and households. The rule organizes that choice; it cannot decide the social value of every project.

Judgment: distinguish a recurring promise from a one-time use of funds. A school building's construction is one expense; staffing and maintenance continue after the commodity price falls. A prudent spending decision needs both costs, not just the visible initial investment.

2. Who estimates the normal level?

IMF research describes independent expert panels introduced in 2002 to strengthen the inputs for long-term copper prices and potential output. The government's initial copper-price assumption was replaced by an expert process; the 2006 Fiscal Responsibility Law added an institutional basis for the framework. Independent inputs were intended to constrain optimistic assumptions, not remove political responsibility for the budget. [S3]

The choices

Analytical alternatives, not reconstructed cabinet minutes:

Spend current receipts. Benefit: visible services or investment when money arrives. Risk: procyclical expansion and lasting commitments financed by temporary income.

Apply a rigid cash-balance requirement. Benefit: an easily observed constraint. Risk: a revenue collapse can require spending cuts precisely when activity is weak. Actual cash balances do not distinguish a cyclical shortfall from permanent deterioration.

Use a structural envelope with review. Benefit: spending can be less sensitive to the commodity and business cycles. Risk: estimated trends and discretionary methodological changes can disguise fiscal weakness. This case evaluates that route without assuming the estimates are always correct.

Technical independence is not complete accountability

The 2011 IMF working paper says the law included computation and transparency provisions but lacked a formal independent verification process for compliance. It describes expert judgments as non-binding and warns about revisions to structural-revenue estimates. Input independence, published calculations and an audit of actual compliance are separate safeguards. [S3]

Marcel's account also describes changes in the indicator and the target. Some adjustments were consulted on and incorporated into past series; others were introduced differently. A changing method can reflect better evidence, but it can also make year-to-year comparisons harder and blur the boundary between a revised estimate and a weakened promise. [S1]

Judgment: publish the old and new estimates, the reason for the revision and the effect on the spending ceiling. Do not silently improve reported compliance by changing the ruler after measuring the result.

3. A rule and a fund are not the same

Chile's Finance Ministry explains that the 2006 Fiscal Responsibility Law established the framework for fiscal savings and enabled the Economic and Social Stabilization Fund, or ESSF. The ministry distinguishes its formal establishment in February 2007 from its initial contribution on 6 March 2007 of US$2.580 billion, mostly transferred from the earlier copper compensation fund. [S5]

The Pension Reserve Fund had a different purpose. A stabilization fund supports budget financing when conditions weaken; pension reserves support specified pension obligations. Pooling their balances into an unlabeled number can overstate the money freely available for general crisis response. [S5-S6]

Exhibit 2. Historical ESSF flows

Chile Finance Ministry's 2017 sovereign-fund annual report includes a historical table of ESSF contributions and withdrawals, in nominal US$ millions. [S6]

2007: contributions 13,100; no withdrawals shown.
2008: contributions 5,000; no withdrawals shown.
2009: no contributions shown; withdrawals 9,278.

Desk calculation. Contributions in 2007-08 sum to US$18,100 million. The 2009 withdrawal equals about 51.3% of that two-year contribution total. This is a flow comparison, not the percentage of the fund balance depleted: investment returns, valuations and other balance movements also matter. [S6]

What the flows establish

The table documents accumulation followed by a substantial withdrawal. It does not establish that every dollar withdrawn was spent on the announced stimulus package, that withdrawals alone caused recovery, or that the fund had no investment risk. Treasury financing, debt transactions and transfers must be separated from final program expenditures.

Judgment: a fund makes a buffer visible, but naming a fund does not create savings. Borrowing to place money in an account may change the balance sheet's composition without increasing net fiscal wealth. Rules for contributions, withdrawals, investment, reporting and debt should be understood together.

4. The crisis test

The IMF's 2009 Article IV report describes the global shock arriving through weaker exports, tighter credit and falling activity. Its assessment credits prior fiscal savings as part of Chile's stronger starting position, alongside financial regulation, monetary policy and other conditions. This is a contemporaneous institutional assessment, not a single-cause estimate of the rule's contribution. [S2]

In January 2009, the government announced a US$4 billion stimulus package with measures representing about 2.9% of GDP. The report describes public investment, temporary tax reductions, transfers and other measures. Announced package size is not identical to verified spending, financing needs or the ESSF's full-year withdrawal. [S2]

Target changes were part of the response

The original 1% structural-surplus target was reduced to 0.5% for 2008. It was reduced to zero in January 2009, with the change described as temporary for the crisis response. The 2009 IMF report later discusses an expected structural deficit. These are dated policy intentions and assessments, not one unchanged target or this case's final audited outturn. [S1-S3]

The 2009 report expected financing needs to be met partly from accumulated fund savings and partly from domestic bond issuance. This is why the reported US$9.278 billion annual withdrawal must not be labelled simply the US$4 billion stimulus. A government's financing operations are broader than one package. [S2, S6]

Savings do not prevent a recession

Buffers can finance a response when revenue falls; they do not remove weak external demand, lending constraints or private investment losses. The report's growth projections were forecasts made during the crisis. This case does not present them as subsequently realized growth or claim the economy avoided contraction. [S2]

Judgment: evaluate a buffer by whether it permits a funded response and protects essential commitments, not by promising that GDP never falls. At the same time, a crisis label should not excuse permanent spending additions without a credible plan for financing them later.

5. What the evidence supports

Kumhof and Laxton's 2009 original research uses a macroeconomic model with a copper sector to compare fiscal responses to copper-demand shocks. It finds performance depends on the relative weight policymakers place on output and inflation variability. More active countercyclical rules can be preferable under different objectives. These are model-dependent results, not observed GDP gains attributable to the rule. [S4]

The 2011 IMF paper argues that a structural target does not automatically guarantee a sustainable net financial position. Revenue estimates, fiscal risks and the eventual actual balance still matter. Marcel's later review recognizes a substantial record of use across administrations while discussing criticism and revisions. Together, these sources support learning from a working framework without calling it an infallible formula. [S1, S3]

Conditional lessons for Sri Lanka

Identify the volatile revenue first. Judgment: distinguish recurring receipts from temporary tax windfalls, asset sales or unusual external inflows. Chile's copper adjustment reflects its own revenue structure. Sri Lanka cannot copy that correction without identifying its relevant risks and data.

Link the rule to debt and net resources. Judgment: choose objectives that reflect obligations, financing access and contingent liabilities. A structural balance alone cannot settle solvency. A fund should complement, not conceal, the public balance sheet.

Make assumptions challengeable. Judgment: use credible technical inputs and publish sensitivity to alternative growth and revenue paths. Protect the distinction between the independent estimate and the political choice of spending. Do not imply precision where the underlying trend is uncertain.

Prepare a funded shock response. Judgment: identify what can be released, by whom, for which purposes, and how results will be reported. Include a review and return path when crisis flexibility is used. Cash availability is necessary but not evidence of effective delivery.

Keep the opportunity cost visible. Judgment: assess urgent investment and social needs alongside the value of buffers. Saving every marginal dollar is not always optimal; spending every receipt is not sustainable. Compare projects and future commitments instead of turning prudence into a slogan.

Decision. Prefer realistic revenue assumptions, public review and usable buffers over spending the boom or inventing a fund without resources. Chile offers an institutional question to adapt, not a guaranteed Sri Lankan outcome.

Sources, calculations and limits

Evidence inspected 11 October 2026 for the 12 October case. Historical institutional documents, original research and recorded fund flows are separated. No current price forecast, latest fiscal balance, new Sri Lankan empirical diagnosis or estimated crisis GDP effect is presented.

S1. Mario Marcel, June 2013. The Structural Balance Rule in Chile: Ten Years, Ten Lessons, IDB Discussion Paper 289. Original policy review of announcement, implementation, target changes and methodological revisions. Author's assessment, not an IDB institutional verdict.
https://publications.iadb.org/publications/english/document/The-Structural-Balance-Rule-in-Chile-Ten-Years-Ten-Lessons.pdf

S2. IMF Country Report 09/271, 2009. Article IV report completed July 2009, published September. Contemporary crisis assessment, announced package and expected financing. Projections are not treated as actual final outcomes.
https://www.imf.org/external/pubs/ft/scr/2009/cr09271.pdf

S3. IMF Working Paper 11/17, 2011. Original review of Chile's fiscal rule, technical inputs, legal framework, revision risk and sustainability limits. Author analysis; no independent compliance audit supplied by this case.
https://www.imf.org/external/pubs/ft/wp/2011/wp1117.pdf

S4. Michael Kumhof and Douglas Laxton, April 2009. Chile's Structural Fiscal Surplus Rule: A Model-Based Evaluation, IMF Working Paper 09/88. Copper-sector model and conditional stabilization results. Not a causal estimate from observed national GDP.
https://www.imf.org/external/pubs/ft/wp/2009/wp0988.pdf

S5. Chile Ministry of Finance, sovereign-fund FAQ. Official account of legal establishment, first funding and fund purposes. Historical dates used; later amended operating rules are not retroactively substituted into 2007.
https://www.hacienda.cl/index.php/areas-de-trabajo/finanzas-internacionales/fondos-soberanos/preguntas-frecuentes

S6. Chile Ministry of Finance, 2017 sovereign-fund annual report. Official retrospective table of ESSF contributions and withdrawals. Nominal US$ millions; historical 2007-09 flows, not a current balance. Report's political commentary is not adopted as this case's conclusion.
https://www.hacienda.gov.cl/english/work-areas/international-finance/sovereign-wealth-funds/annual-report/annual-report-sovereign-wealth-funds-2017

Calculation. 13,100 + 5,000 = 18,100 million US dollars. 9,278/18,100 x 100 = 51.3%. This compares flows, not depletion of the starting stock. No equivalence between stimulus announcements and fund withdrawals, no counterfactual welfare estimate and no presumption that all revisions were justified. Sri Lankan transfer lessons are conditional judgment.