

# Chile's Fiscal Framework: an Outsider's Perspective

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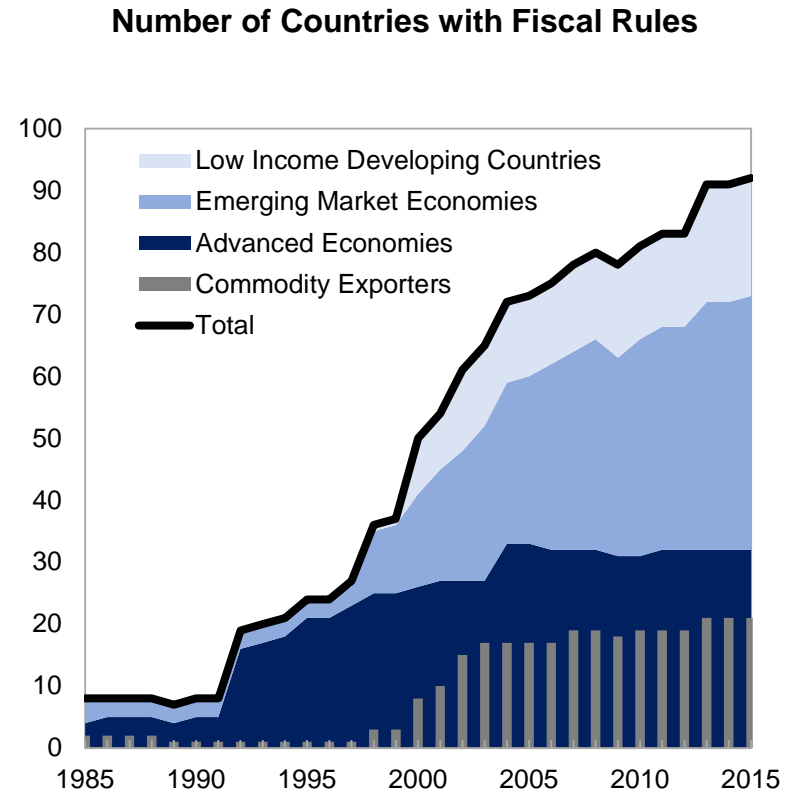
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# Outline

- Objectives
- Addressing cyclicality
  - Setting and deviating from targets
  - Setting parameters
- Sustainability/preservation
  - Overall impact on debt
  - MT fiscal anchor
  - Buffers
- Accountability and assessment
- Alternatives
- Preliminary reflections

# Chile's Fiscal Rule

- Fiscal rule has served the country well
- Is very well regarded and considered a model by many countries
- Helped fiscal discipline and medium term planning
- Helped build buffers ahead of the GFC
- Debt remains low by international standards



# Main Standard Objectives

- Stabilization
  - Reduction of procyclicality of expenditure
  - Business and commodity cycle adjustment
- Sustainability and Preservation of net wealth/buffers
  - Ensure sustainable and healthy public finances
  - Build adequate buffers
  - Preserve wealth for future generations; intergenerational equity
  - Warrant consistency with long-term objectives such as growth & inclusiveness
- Should objectives be spelled out more clearly/precisely?

# Chile Fiscal Rule Objectives

- Corbo Commission Report (p.54):

*“The Chilean fiscal rule has a twofold objective:*

- (i) to **reduce the pro-cyclical nature of public spending;***  
*and*
- (ii) **maintain a solid position of net financial assets** of the central government throughout the cycle.”*

# Chile Fiscal Rule Objectives

- Larraín et al. (2011, p.5):

*“... it seeks to **eliminate the traditionally pro-cyclical behavior of fiscal policy**, a situation still observed in many countries.”*

*“In short, the policy of Structural Balance translates into savings in times of expansion of economic activity, when higher income is received due to the cycle, precisely to be able to spend them either when the economy contracts, and tax revenues fall, or when facing situations that cause expenditure needs to increase.”*

# Chile Fiscal Rule Objectives

- Marcel et al. (2001, p.46-47):

*“... **transparency, credibility and effectiveness of fiscal policy.**”*

*“The first objective of adjusting fiscal accounts to fluctuations in economic activity is to have a measure of the structural fiscal situation that can be used as a **tool for medium-term orientation of fiscal policy.**”*

- And on achieving the rule’s goals, Marcel (2013, p.17, 39, 41) states:

*“These three dimensions—**reduction of discretionality, volatility, and risk perception**—provide a basis for analyzing results of the structural fiscal balance rule in Chile”*

*“...it has provided a framework to **reorganize public financial management and the budgetary process,**... the rule has fostered a virtuous circle of fiscal consolidation that has included fiscal transparency, midterm financial programming, asset and liability management, and budgetary institutionality, among other benefits.”*

# Desirable characteristics of an efficient rule

- **Simplicity and Transparency:**
  - The rule should be easily understood by decision makers and the public.
- **Operational guidance:**
  - It should be possible to translate the rule into clear guidance in the annual budget process. Budget aggregates targeted by the rule should be largely under the control of the policymaker.
- **Resilience:**
  - A rule should be in place for a sustained period to build credibility, and it should not be easily abandoned after a shock.
- **Ease of monitoring, enforcement, and accountability:**
  - Compliance with the rule should be easy to verify, and there should be costs associated with deviations from targets.



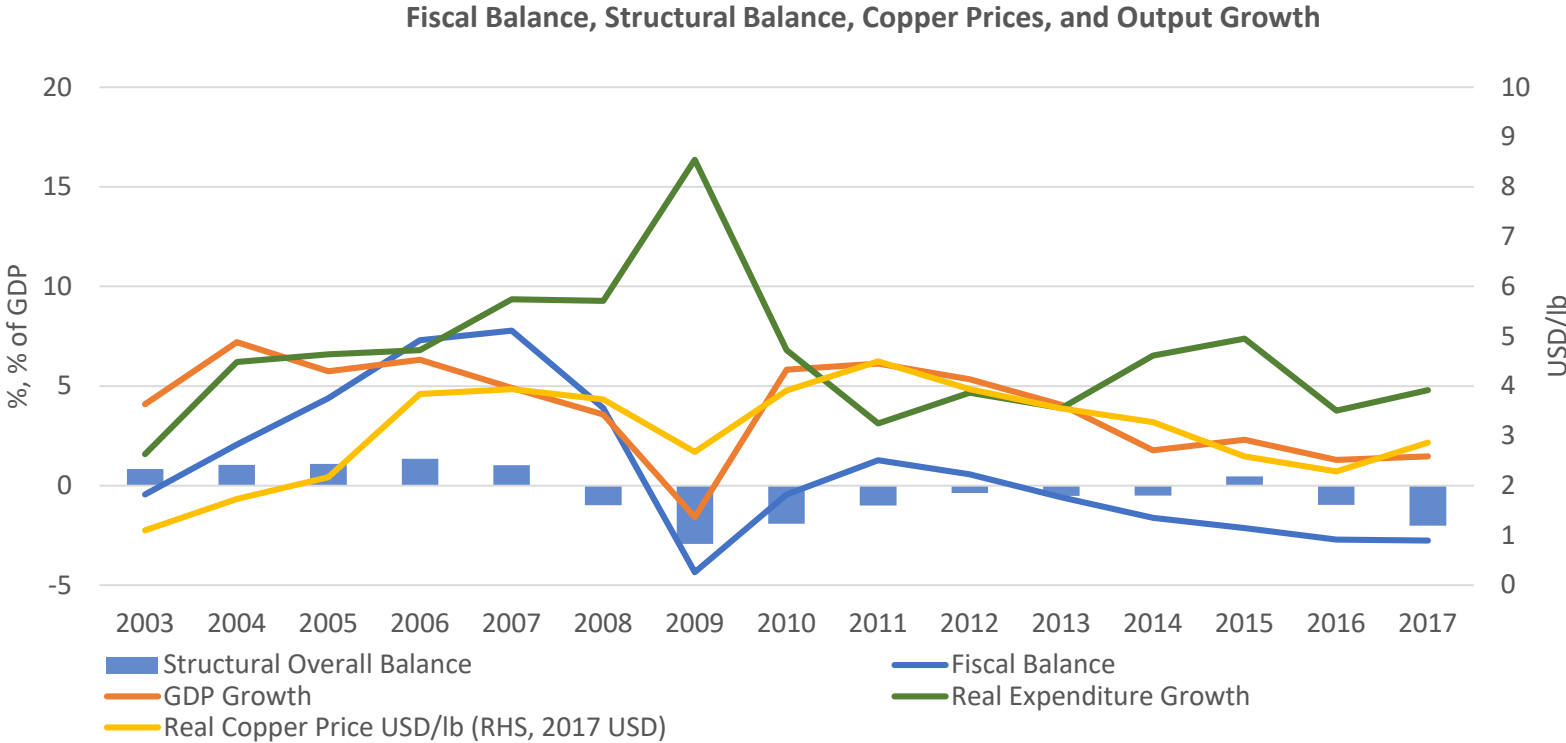
# Addressing Cyclicity

Caveats: Assessment is complicated

- Ex-ante vs. ex-post
  - Cyclicity based on official LT parameters (ex-ante and binding) or ex-post gaps?
- Targets: year-by-year or 4-year plan?
- Different parameters?

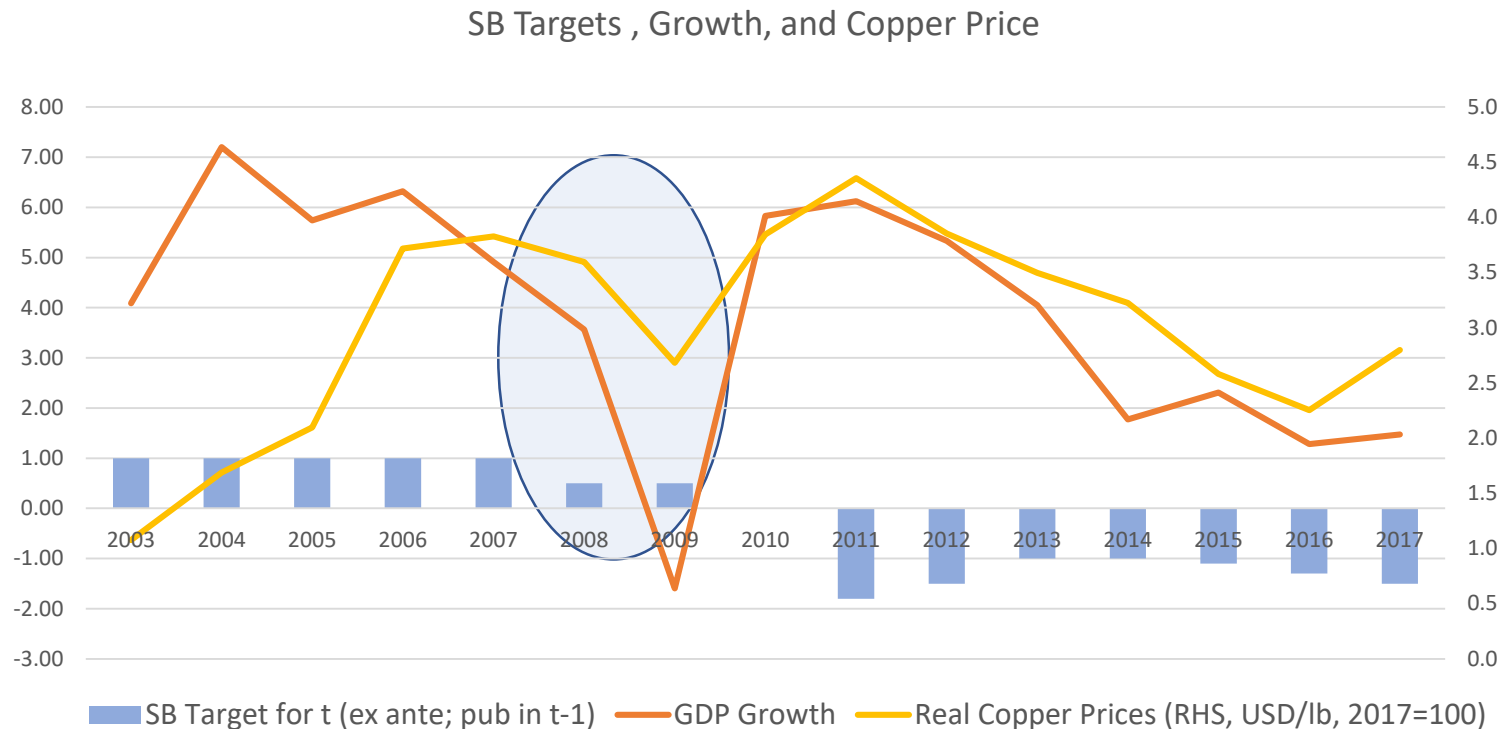
# Addressing Cyclicality

Substantial correction for cycles



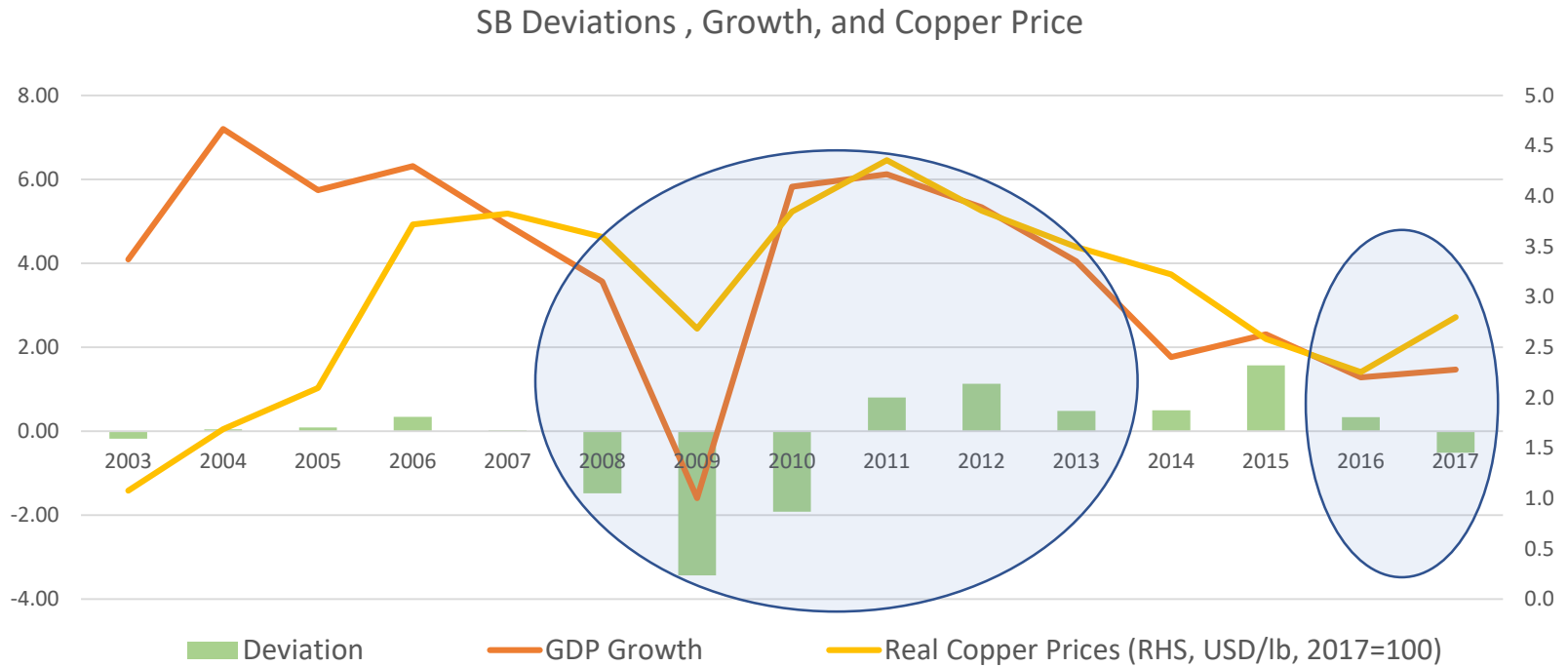
Sources: DIPRES, Central Bank of Chile, Bloomberg, and IMF staff calculations.

# If SB is countercyclical, is it due to targets?...



Sources: DIPRES, Bloomberg, and IMF staff calculations.

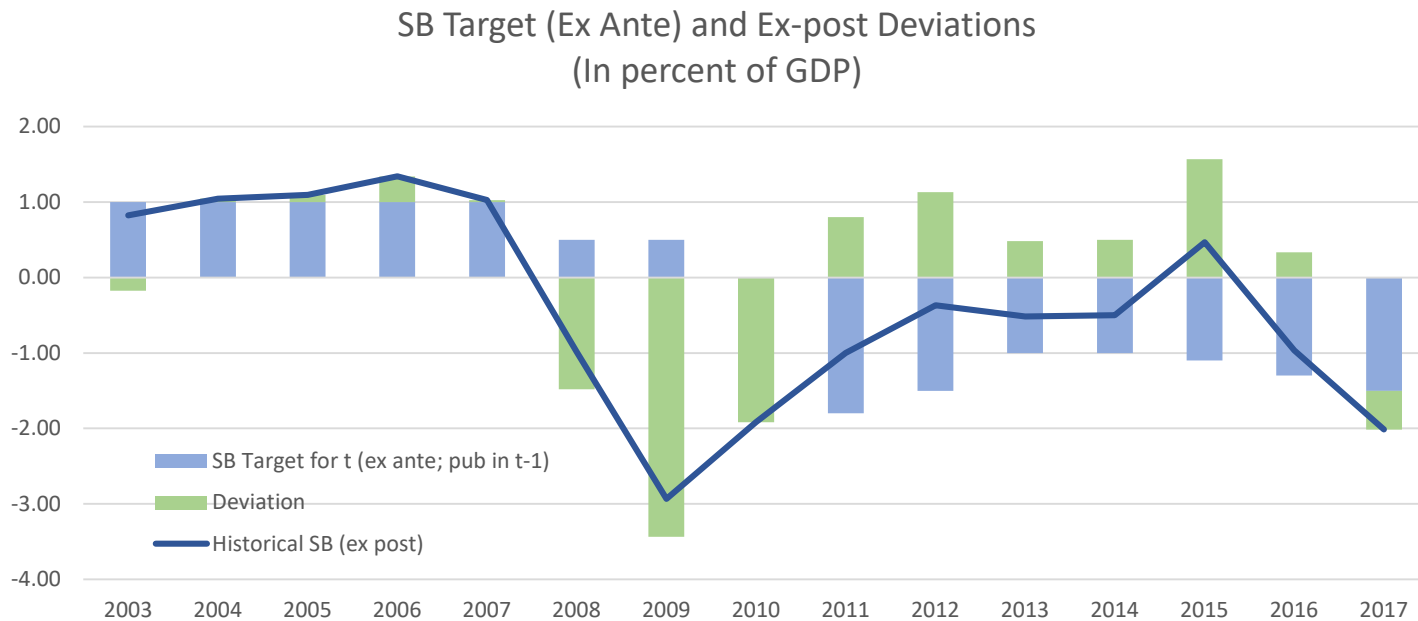
# ... or due to deviations from targets?



Sources: DIPRES, Bloomberg, and IMF staff calculations.

# Setting and deviating from targets:

Since GFC/E targets remained low, partly offset by deviations



Sources: Dipres and IMF staff calculations.

# Setting and deviating from targets: Stock-taking

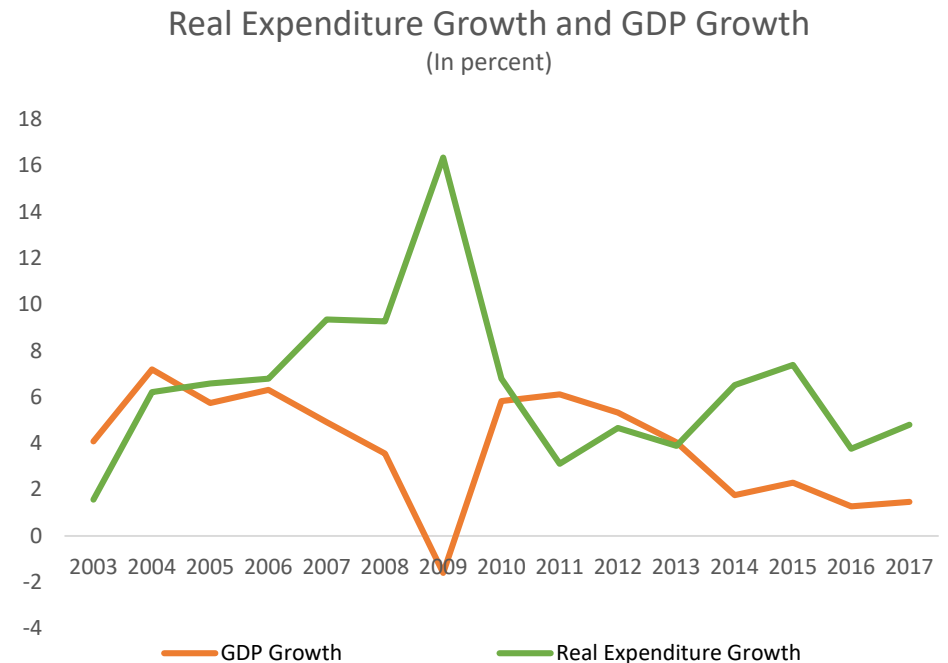
- Usual practice is to keep target unchanged and invoke escape clauses under exceptional circumstances
  - Were target changes essential for countercyclicity? Not necessarily
  - Were deviations from target necessary for countercyclicity? Yes, preferably via escape clause to enhance credibility
  - Would less flexibility for setting targets be desirable, if coupled with escape clause and adjustment rule?

# Setting & deviating from targets: Stock-taking (2)

- Was a persistent change of targets necessary for long-term objectives?
  - Persistent shift downward in SB target, hence not cyclical
  - Usual practice is to anchor it to long-term factors and objectives, such as potential growth slowdown, debt sustainability,...
  - Was there an explicit discussion that the SB target had become inappropriate?

# What about Cyclicality of Expenditure?

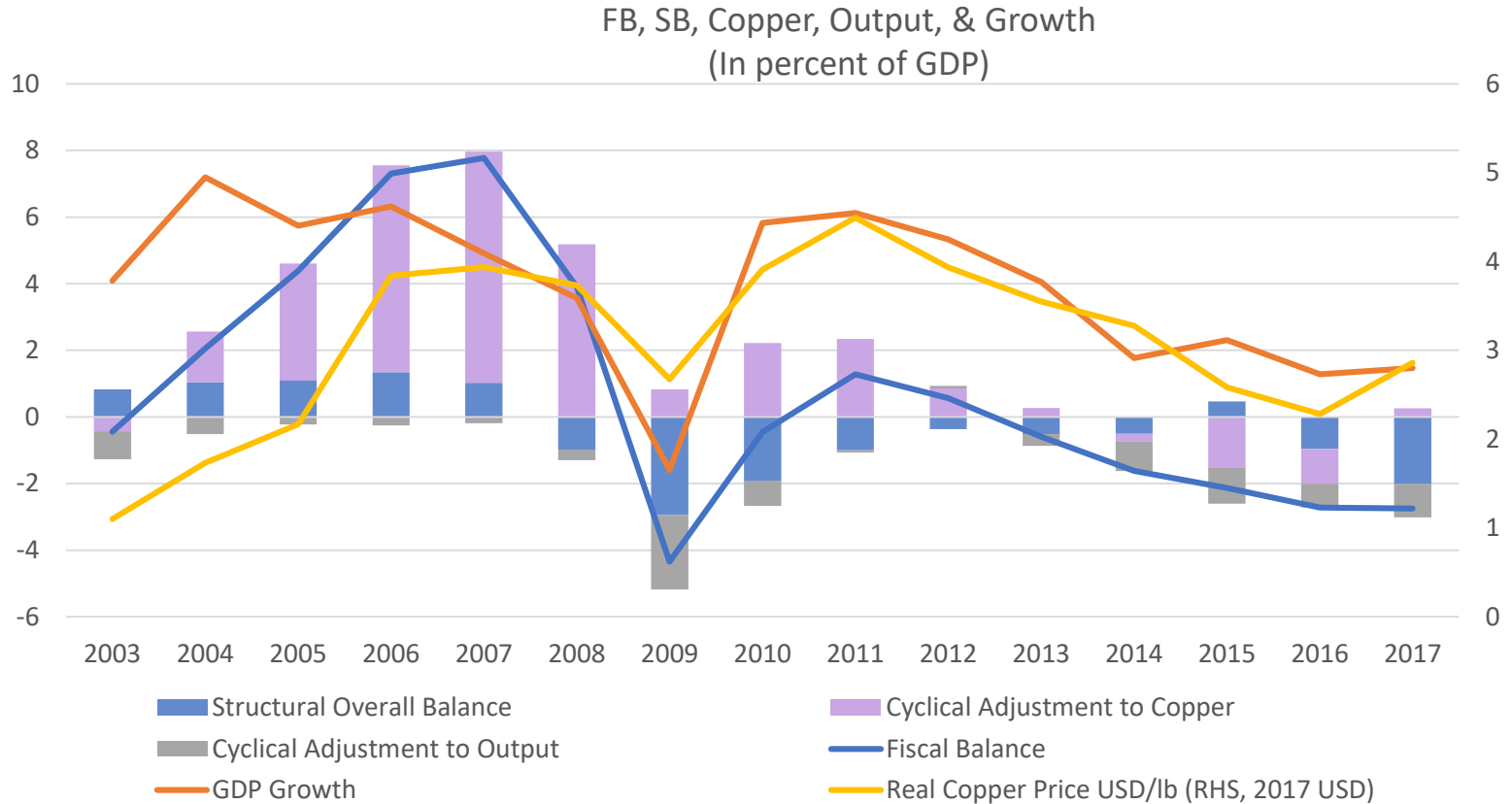
- Counter-cyclicality mainly during GFC/E, and also afterwards (not in the early times)
- Hence expenditure shows stronger countercyclical response during deeper recessions.



Sources: DIPRES and IMF staff.

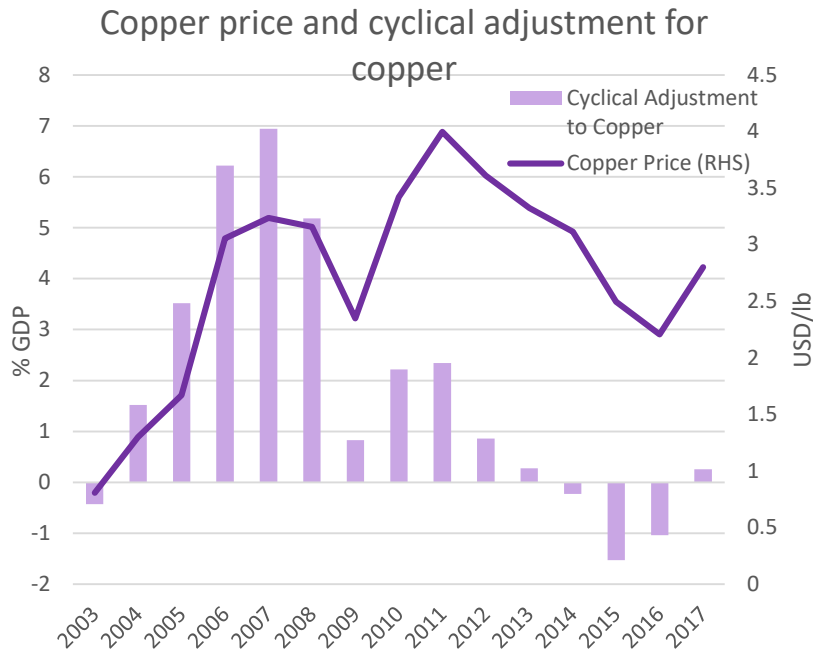


# Setting Parameters

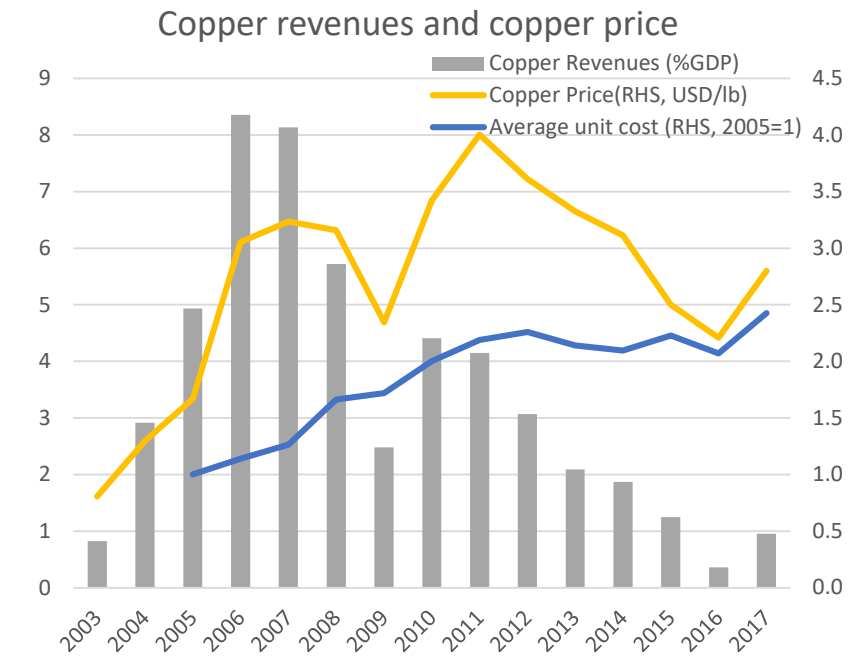


Sources: DIPRES, Central Bank of Chile, Bloomberg, and IMF staff calculations.

# Extent of correction for copper cycle



Sources: DIPRES, Central Bank of Chile, and IMF staff calculations.



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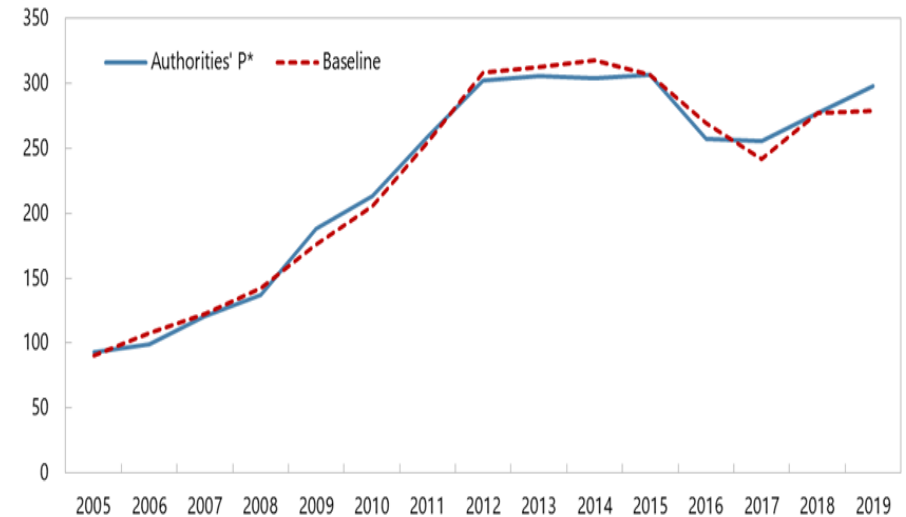
# Setting Parameters

## Forecasting the Copper Reference Price

- ECM based on WEO forecast price tracks copper reference price reasonably well
- ECM fitted with 2004-2017 data, where:
  - $P_t^*$  is the expert committee's copper reference price (year t-1);
  - $P_t$  is the average of the WEO forecasts at year t-1 of the copper price for the next 5 years
  - $E_{t-j}$  is the j-periods ahead forecast operator

In-Sample Fitted  $P^*$  vs Actual  $P^*$

(US Cents/lb)

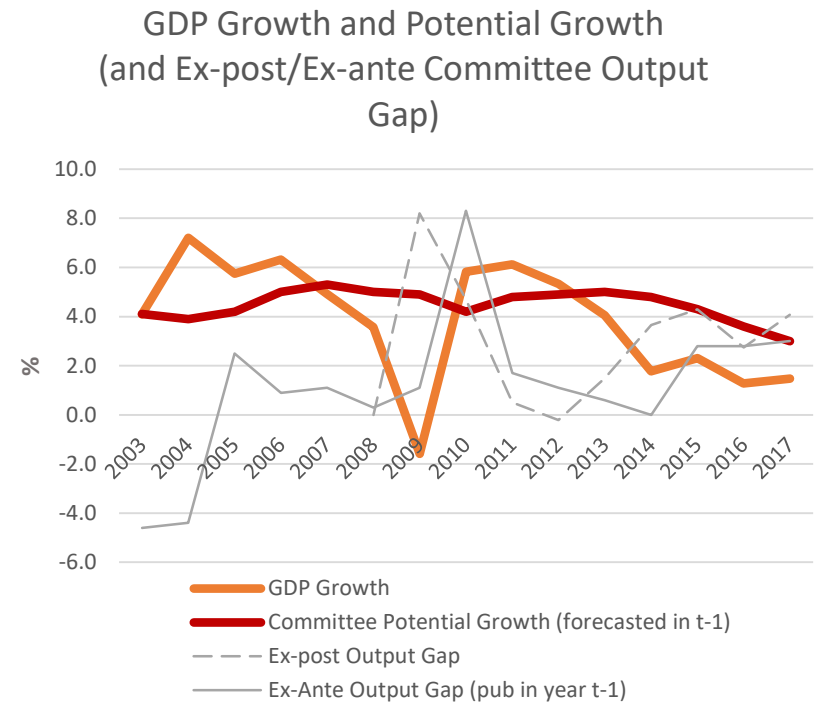
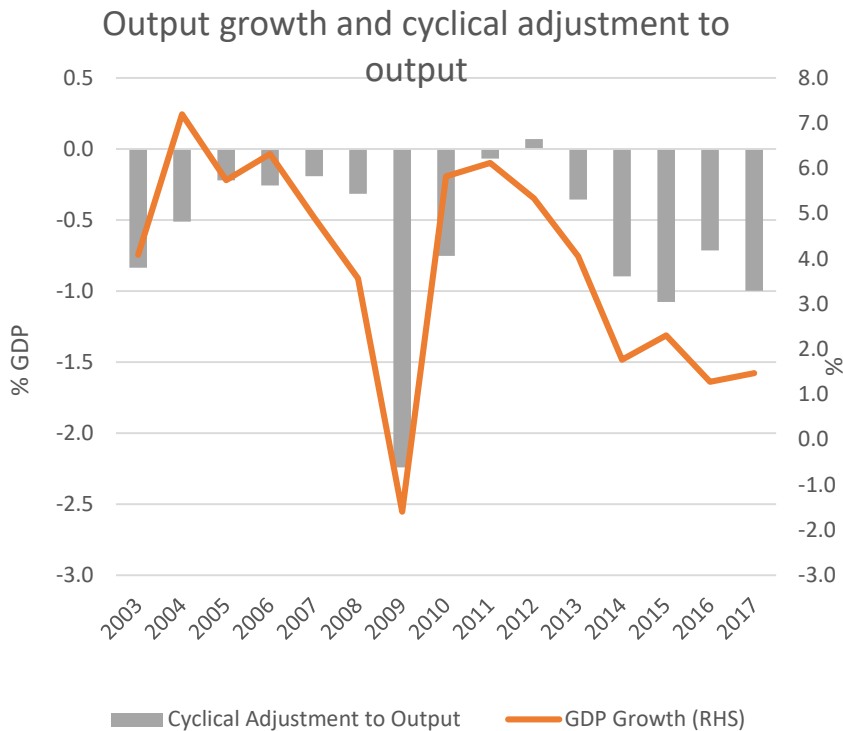


Source: WEO, committee of experts, and IMF staff calculations.

$$\ln P_t^* - \ln P_{t-1}^* = \frac{0.48}{(0.000)} (\ln E_{t-1}[P_t] - \ln E_{t-2}[P_{t-1}]) - \frac{0.37}{(0.000)} (\ln P_{t-1}^* - \ln E_{t-2}[P_{t-1}])$$

# Setting Parameters:

## Business cycle adjustment asymmetrical



Sources: DIPRES, Central Bank of Chile, and IMF staff calculations.

# Setting Parameters: Stock-taking

- One-sided output adjustment allows higher spending (about  $\frac{1}{2}$  percent of GDP, yearly)
  - Potential GDP is persistently set as too high
- Copper adjustment was main driver of fiscal savings:
  - Public savings can arise from low benchmark copper price or high SB target
- But now copper costs are higher and hence lower fiscal revenues from copper:
  - Output gap adjustment has gained relative importance, and its spending effect cannot be easily offset by savings from the copper adjustment as in early years.

# Sustainability and Preservation of Net Wealth/Buffers

Fiscal deficit is what matters for debt

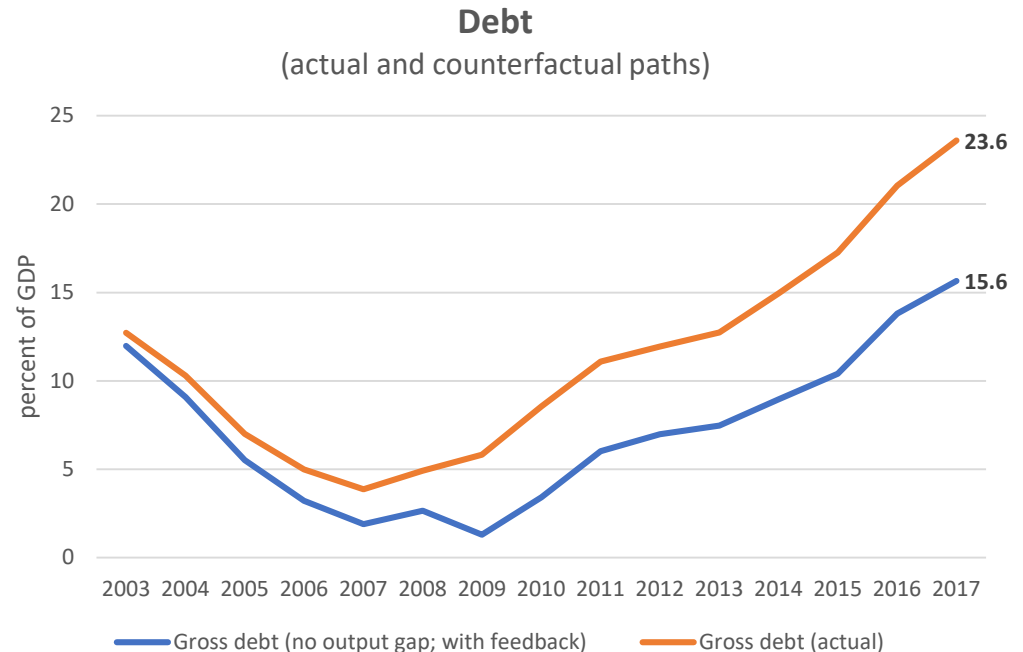
$$FB = SB + CA$$

$$FB = SB_{target} + SB_{deviations} + CA_{gdp} + CA_{copper}$$

## Effect on debt:

Persistently one-sided output gap provided space for extra spending and resulted in faster debt accumulation

- To assess the impact on debt of the output gap cyclical adjustment, assume output gap had been closed in each year, so that potential output were equal to actual output
- then expenditure growth would have been lower
- and the debt level in 2017 would have been about 8 percent of GDP lower

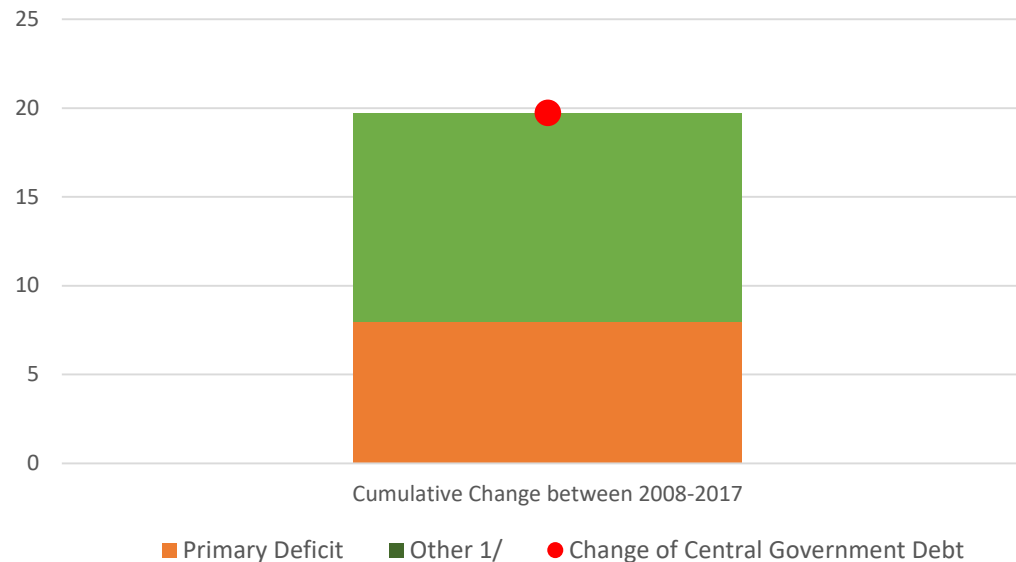


Sources: DIPRES and IMF staff calculations.

# Effect on debt:

This roughly corresponds to the effect on the debt increase coming from the primary deficit

Historical Debt Decomposition, Cumulative Change between 2008 - 2017 (percent of GDP)



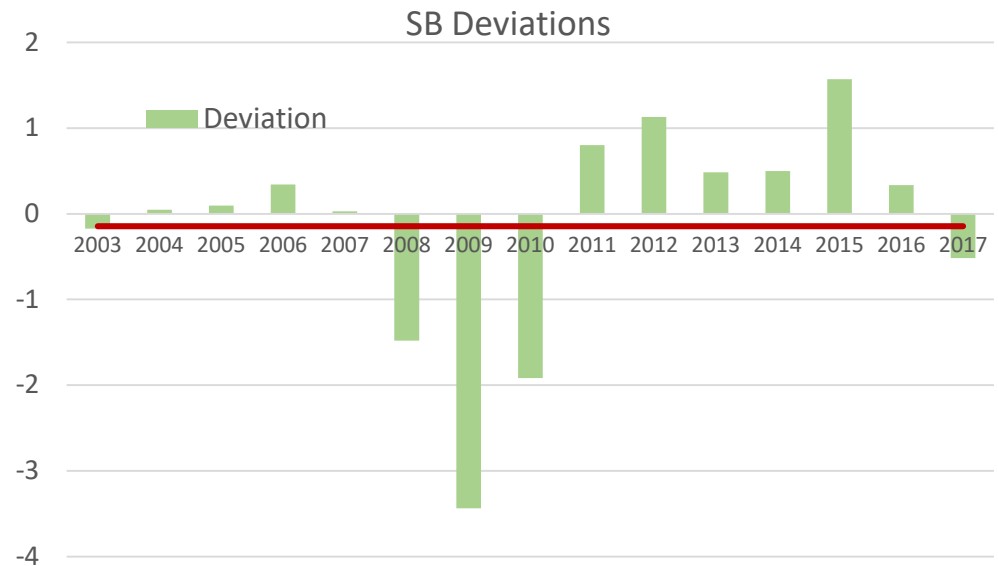
1/ Other contributions includes change in recognition bond, net acquisition of financial assets, as well as the effects from real interest rates, real GDP growth, CPI inflation, exchange rate, and the residual.

Sources: DIPRES, Central Bank of Chile, and IMF staff calculations.



# Were deviations from targets also a culprit of debt increase?

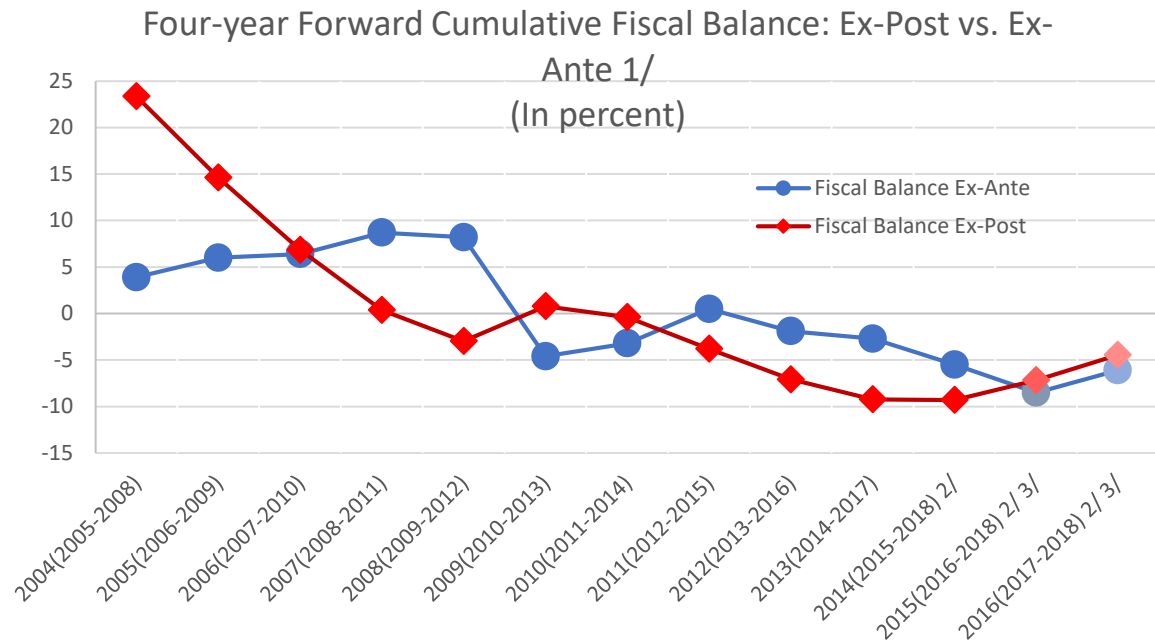
- Does not seem so, as deviations from targets tended to cancel out
  - The sum of the deviations from target is 0.3 percent of GDP



Sources: DIPRES and IMF staff calculations.

# Were fiscal projections optimistic and possible culprit of debt increase?

- Does not seem so, as projections were not systematically biased:
  - Each dot is the cumulative 4-year ahead fiscal deficit (blue is projections and red is ex-post realization)

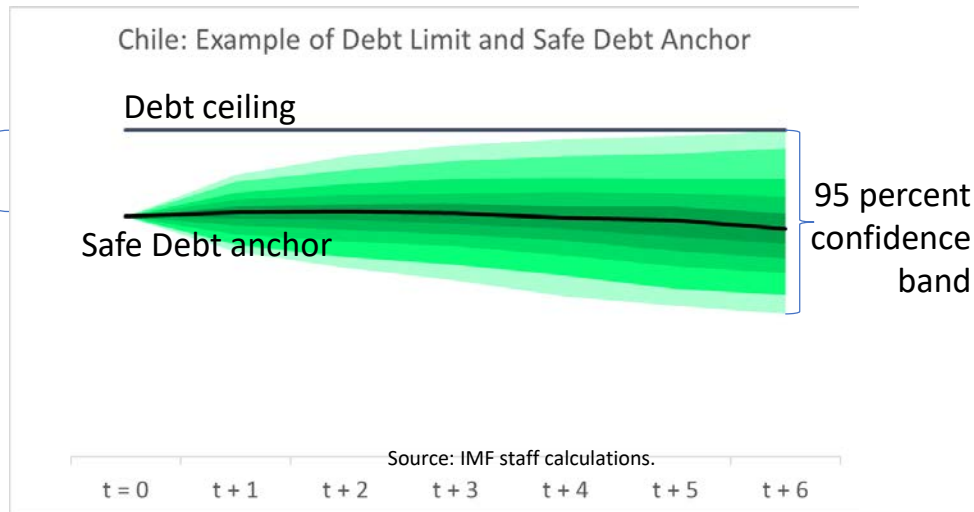


- 1/ The first year in the X-axis refers to the year DIPRES' proposed budget was published, the years in parentheses refers to the deficits that were added up.  
 2/ For 2018 data for the fiscal balance is based on IMF staff forecasts.  
 3/ For the last three years cumulative values are only for the available data.

Sources: DIPRES and IMF staff calculations.

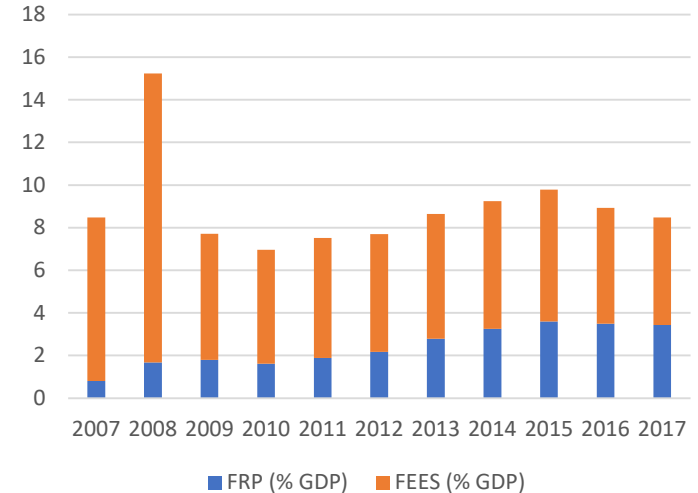
# Buffer/Savings Objectives?

Buffer = about 10-15 percent of GDP for Chile



For Chile, a buffer of about 10-15 percent of GDP ensures that, given short-run shocks to growth, interest, and exchange rates, debt-to-GDP remains below the ceiling with 95 percent probability in any given 6 year horizon (based on Montecarlo simulations).

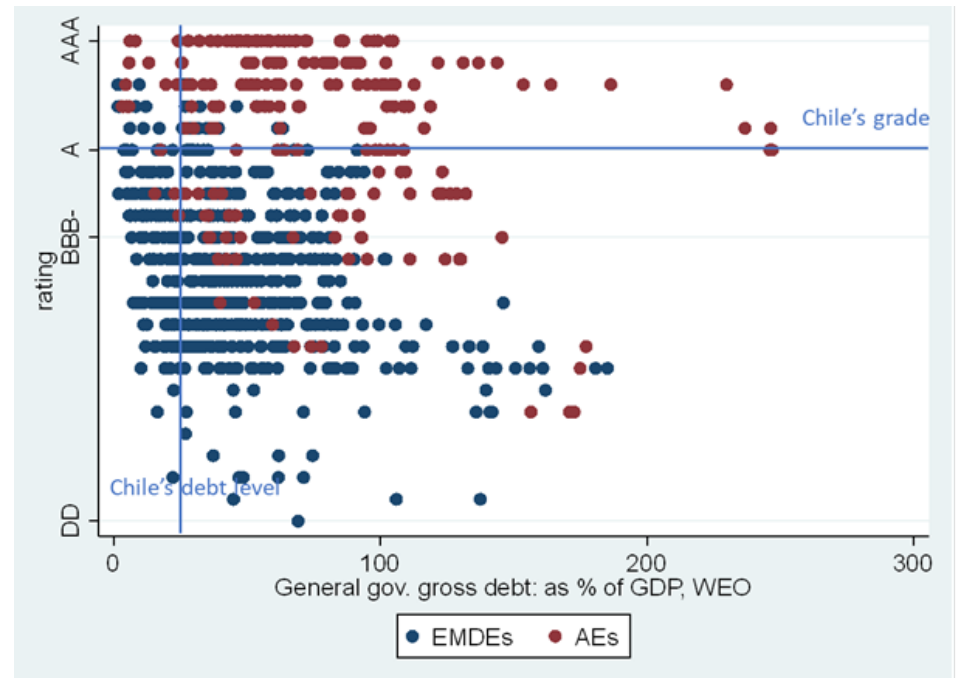
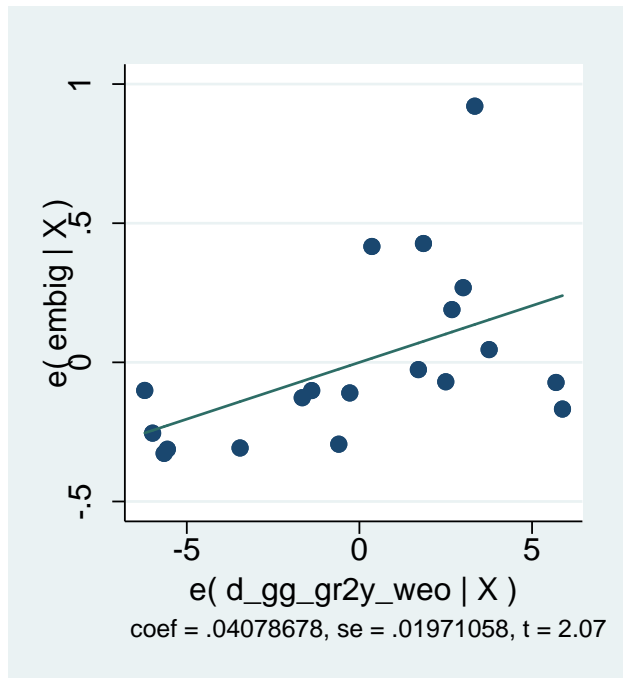
**SWF Assets**  
(percent of GDP)



Sources: DIPRES and IMF staff calculations.

# Debt Matters for Spreads and Credit Ratings

- Higher GG debt levels in Chile have been associated with higher spreads (controlling for VIX, US rates, GDP growth, inflation and copper prices)
- Higher debt is generally associated with lower credit ratings (particularly striking with EMs)



Source: IMF staff calculations.

# Sustainability/Preservation

## Stock-taking

- The one-sided output gap cyclical adjustment accounts for virtually all the contribution of the primary deficit (8% GDP) to the increase in debt over past 10 years (20% GDP).
- The rule could be complemented with an explicit medium-term anchor:
  - Calibration of target choice and bias from output gap cyclical adjustment were the main reason for higher debt
  - Missing targets and uncertain fiscal projections were not key drivers of debt
- SWF buffers as percent of GDP are not as large as pre-GFC (what if there is another large shock?)
- Debt buffers should be 10-15 percent of GDP (borrowing capacity? notional debt ceiling?)
- Should SB targets and the path for net worth be linked to long-term objectives?
- Debt matters for spreads and ratings
- ... and all these issues affects credibility

# Accountability and Flexibility

- Too much flexibility in setting the targets?
  - Should the fiscal rule specify criteria?
  - Also should all 4-year target plans be required to announce annual SB targets?
- Should changing targets be more structured?
  - More guidelines from the fiscal rule?
- Introduce formal escape rules rather than changing targets for countercyclical purposes?
- Introduce formal adjustment rule for past deviations from SB targets?

# Accountability and Assessment

- Replication of SB should be made easier
- Importance of assessing compliance via autonomous fiscal council
- Treatment of one-off items
  - Should be spelled out more clearly?

# Consider Alternative Rules?

- Is the SB an adequate target, or alternative targets are better?
- Would an expenditure rule be easier to implement?
- Need to complement with a stock anchor like gross or net debt?
- Use non-mining SB target?
  - Completely smooths the copper cycle (unless target moves with copper)
  - Trade-off b/w building buffers versus development/social spending
  - Setting a weak target would defeat the purpose
- Use primary SB target?
  - More important in countries with volatile interest rates



# Preliminary Reflections

- The one-sided potential output estimates affect debt over time
- Target-setting seems too flexible and could be better related to long-term factors and objectives
- Counter-cyclical policy could be implemented explicitly via an escape clause and an adjustment rule
- A more explicit medium-term anchor would be helpful
- Addressing these would help enhance efficiency and credibility