

Fiscal Policy in an Emerging Market Economy

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Road Map



1. Fiscal policy in emerging market economies:
the issues
 1. Deficit bias and procyclicality
 2. Political economy
2. Chile's fiscal rule
 1. Initial conditions
 2. The rule at work
 3. Some results
3. Thinking about fiscal rules



1. Fiscal policy in emerging markets: the problems

- ▣ Deficit bias
- ▣ Procyclicality

Deficit Bias



- Drop in of government net assets on average: over the cycle
- Drop government net assets even when standard smoothing considerations suggest the opposite
- See Alesina and Perotti (1995)

Procyclicality

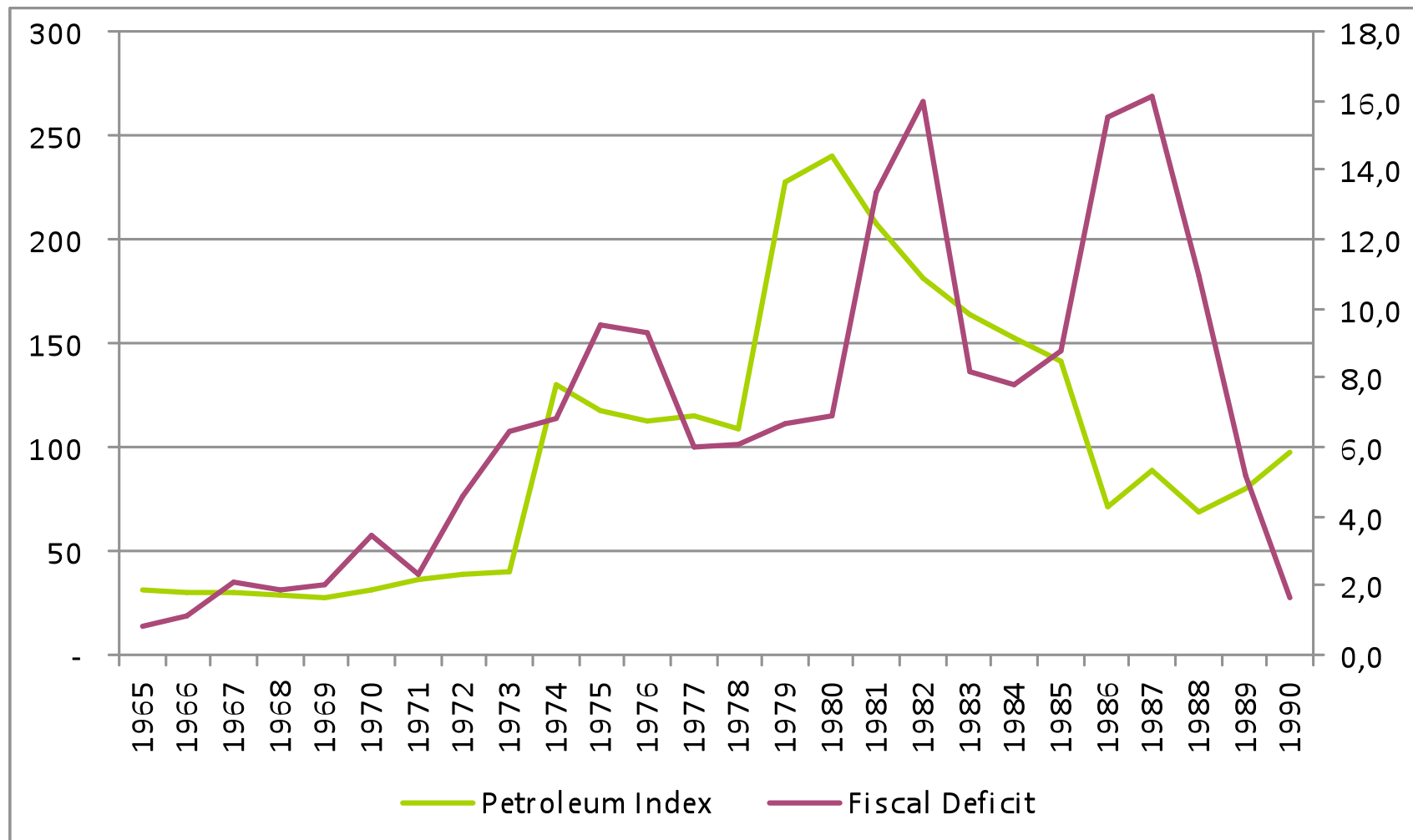


- Conventional wisdom: save in booms and disave in recessions
- Reality: save too little in booms or even disave
- See Cuddington (1989), Sinnott (2009), Talvi and Vegh (1995)
- Arezki and Brückner (2010a): commodity price booms lead to increased government spending, external debt and default risk in autocracies, and have smaller such effects in democracies

Procyclicality is especially an issue for commodity exporters

- Commodity-linked revenues (taxes, royalties, profits) can be a large portion of government revenue. See Sinnott (2009)
- Commodity price volatility is large (see next slide)
- International capital flows are also procyclical: borrowing constraints are relaxed during booms. See Kaminsky, Reinhart, and Vegh (2005), Reinhart and Reinhart (2009), Gavin, Hausmann, Perotti and Talvi (1996), and Mendoza and Terrones (2008).
- Caballero (2002) and Gallego, Hernández, and Schmidt-Hebbel (2002): highly procyclical capital flows in Chile

Mexico: an extreme example of procyclicality



Why fiscal procyclicality?



- Economic story: borrowing constraints are relaxed in good times, bind in bad times
- Political story: the voracity effect
- In practice, both probably interact

Deficit bias and procyclicality: political economy elements

- Key: fragmented fiscal policymaking. Tornell and Velasco (1991), Velasco (1998) & (2003), Lane and Tornell (1993)
- Imagine n symmetric groups. Each can be thought of as a particular constituency or recipient of government resources.
- Public expenditure on group i can be interpreted as subsidies to its members or spending on a public good that only benefits those in group i .
- Expenditure can be financed out of a variable stream of revenue or by borrowing in the world capital market.
- Accumulated debts are a joint liability of all n groups, as would be the case with the national debt in any country.

Deficit bias and procyclicality: political economy elements (2)

- Each group maximizes utility from expenditure subject to a shared budget constraint

$$b_t = (1 + r)b_{t-1} + \tau + \varepsilon_t - \sum_{i=1}^n g_{it}$$

- Find sub-game perfect equilibrium of the game among the N groups (simple state-dependent strategies)
- Results
 - Deficit bias: net government assets fall even without shocks and then rate of discount equals rate of interest
 - Procyclicality: too little saving during good revenue shocks and too much disaving during bad revenue shocks

Deficit bias and procyclicality: what can you do?



- ▣ Reduce policy-making fragmentation: give more power to
 - Finance Minister vis à vis spending ministers
 - Central government vis à vis sub-national governments
 - Executive versus legislature
- ▣ Adopt fiscal rule that guides expenditure over long horizons, and constraints its over the cycle
- ▣ Chile did both

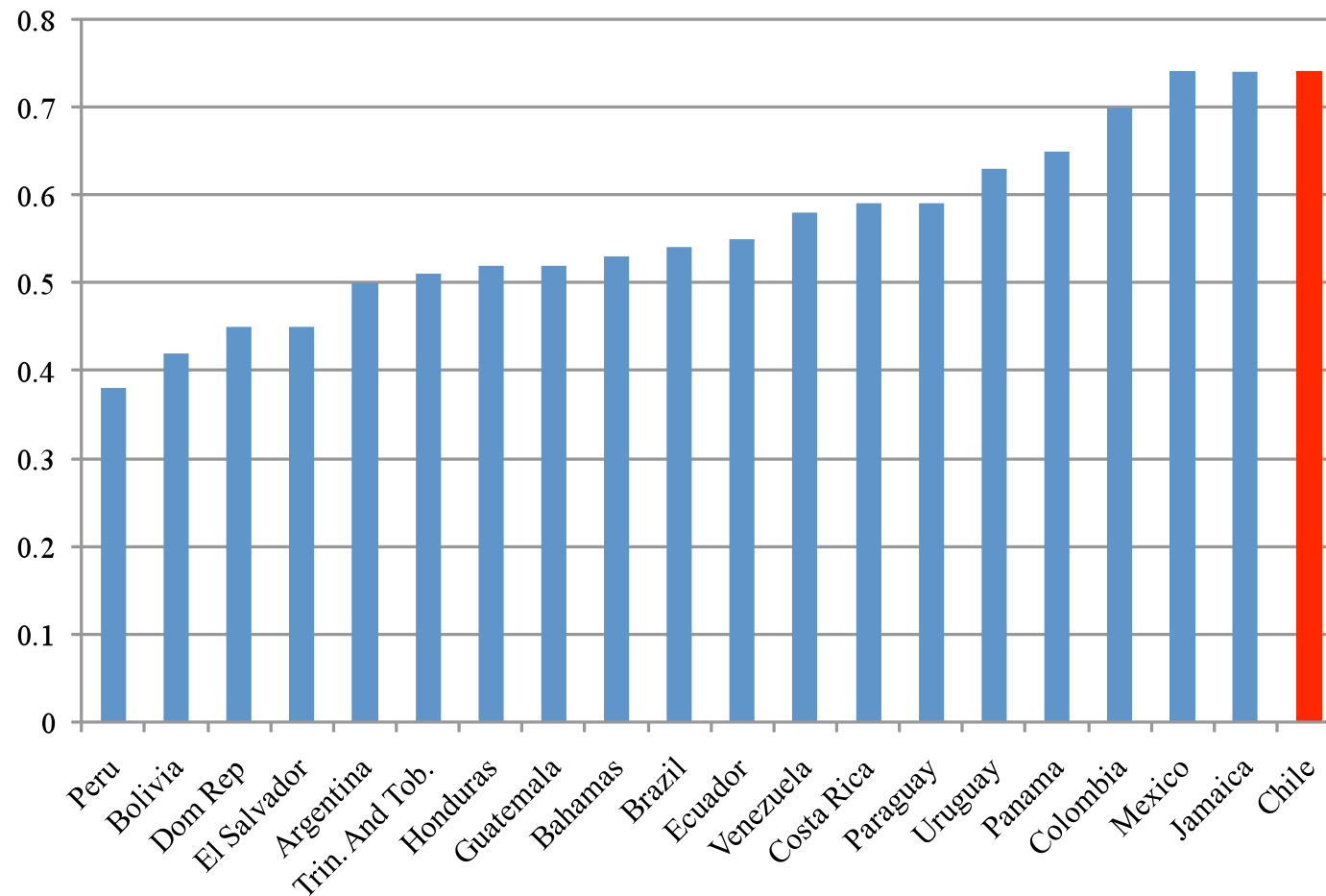
Hierarchical budget institutions: they make a difference



▣ Examples

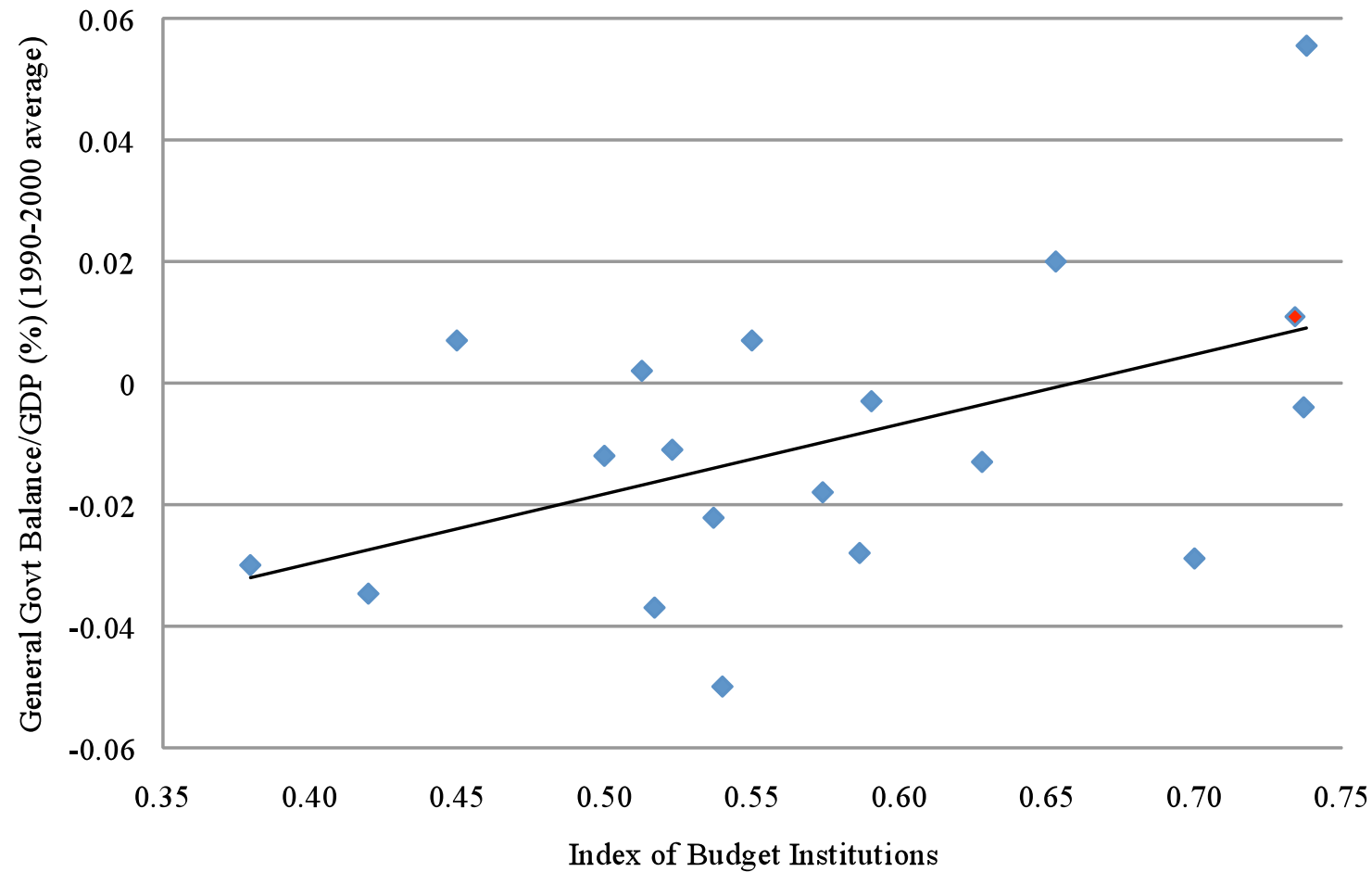
- ▣ Limit “initiative” for spending rules to Executive
- ▣ Set spending ceilings before setting allocation
- ▣ Place strict deadlines for parliamentary approval of budget
- ▣ Set costly “status quo” or “default” rules in case of parliamentary non-approval: revert to Executive’s proposal or to previous year’s budget
- ▣ This all matters for fiscal performance: Von Hagen and Harden (1995), Alesina et al (1999)

An index of fiscal institutions



Source: Alesina et al (1999).

Fiscal institutions & fiscal performance



Source: Alesina et al (1999).


Fiscal rules: some definitions



- ▣ “..Legislated quantitative constraints on fiscal policy. These limits take a variety of forms: restrictions on deficit financing, including balanced budget laws; expenditure ceilings; numerical targets for fiscal variables; borrowing rules; and restrictions on the issuance of debt...” (Drazen, 2004)
- ▣ “A fiscal rule is defined as a permanent constraint on fiscal policy through simple numerical limits on budgetary aggregates. Each of the elements in the definition is important: a rule delineates a numerical target over a longlasting time period with a view to guiding fiscal policy; it specifies a summary operational fiscal indicator to which it is applicable; and it is simple so that it can be readily operationalized, communicated to the public, and monitored.” (IMF, 2009)

Fiscal rules: new fashion



- According to the IMF (200), by 2009 exactly 80 countries had some kind of fiscal rule in place
 - However... only 8 of those rules involved “cyclical” or “structural” adjustments
 - Prominent example in Europe: Sweden
 - Ireland is now supposed to get one
- 



2. Chile's fiscal rule

- ▣ Initial conditions
- ▣ The rule in operation
- ▣ Some consequences
 - Fiscal
 - Otherwise

Chile: initial conditions



- ▣ Strong budget institutions
- ▣ Good fiscal performance since 1990
 - ▣ More surpluses than deficits in 1990-2000
 - ▣ By 2000, gross public debt only 35% of GDP
- ▣ So why did Chile need rule?
 - ▣ Economic concerns
 - No longer-term framework for fiscal policy
 - Contingent liabilities: pensions, infrastructure
 - ▣ Political concerns
 - Inefficient negotiation inside Executive and in Congress
 - Subnational governments

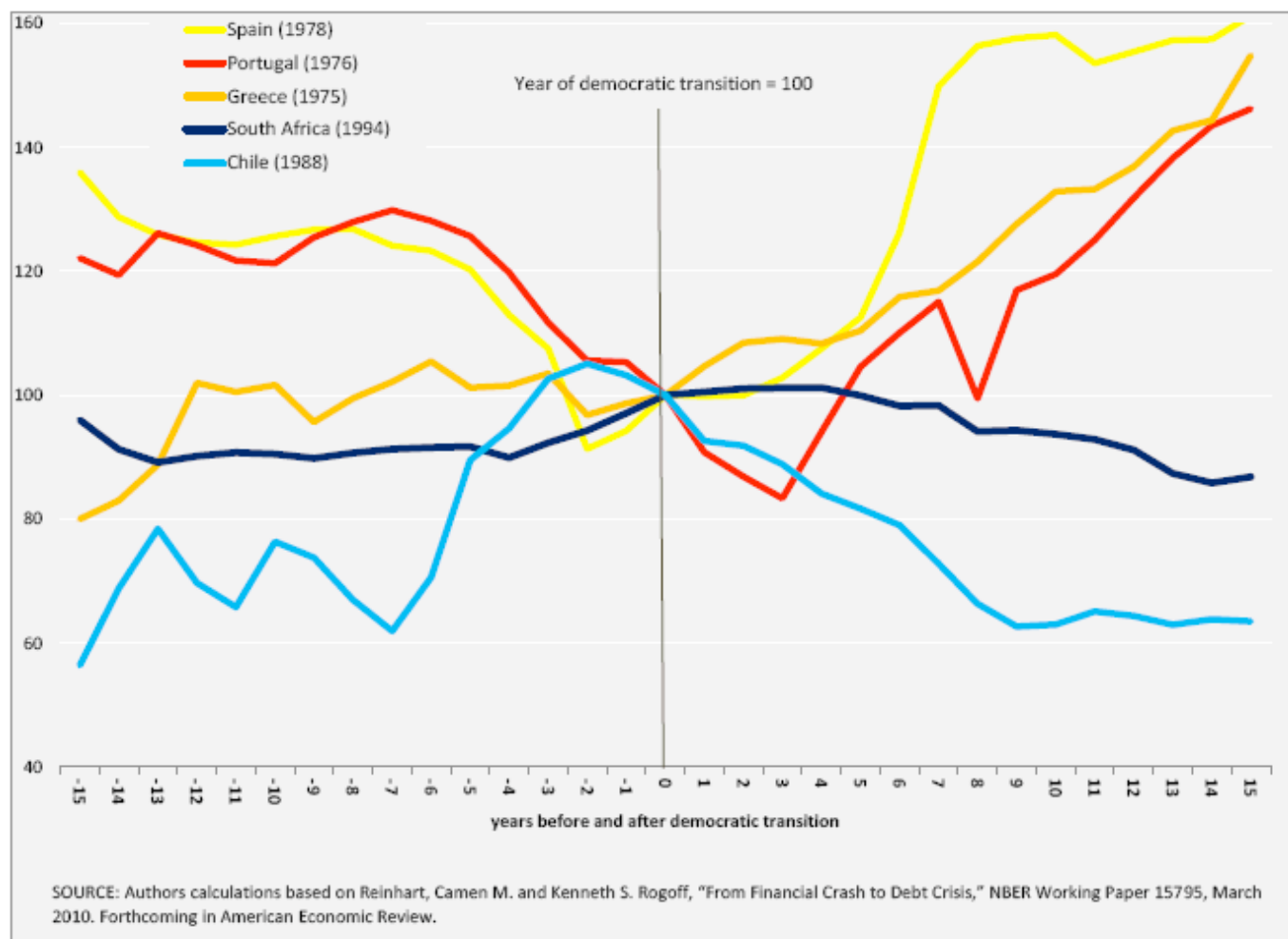
Chile: macro results



- ▣ Output volatility
- ▣ The real exchange rate
- ▣ Room for countercyclical policy during the crisis

Chile: fiscal performance after the return of democracy

Chile: comparative public debt/GDP performance



Source: Sachs (2011)

Chile: the rule in operation



- ▣ Dealing with flows: the structural balance approach
- ▣ Dealing with stocks: creation of SWFs

Dealing with flows: the structural balance approach



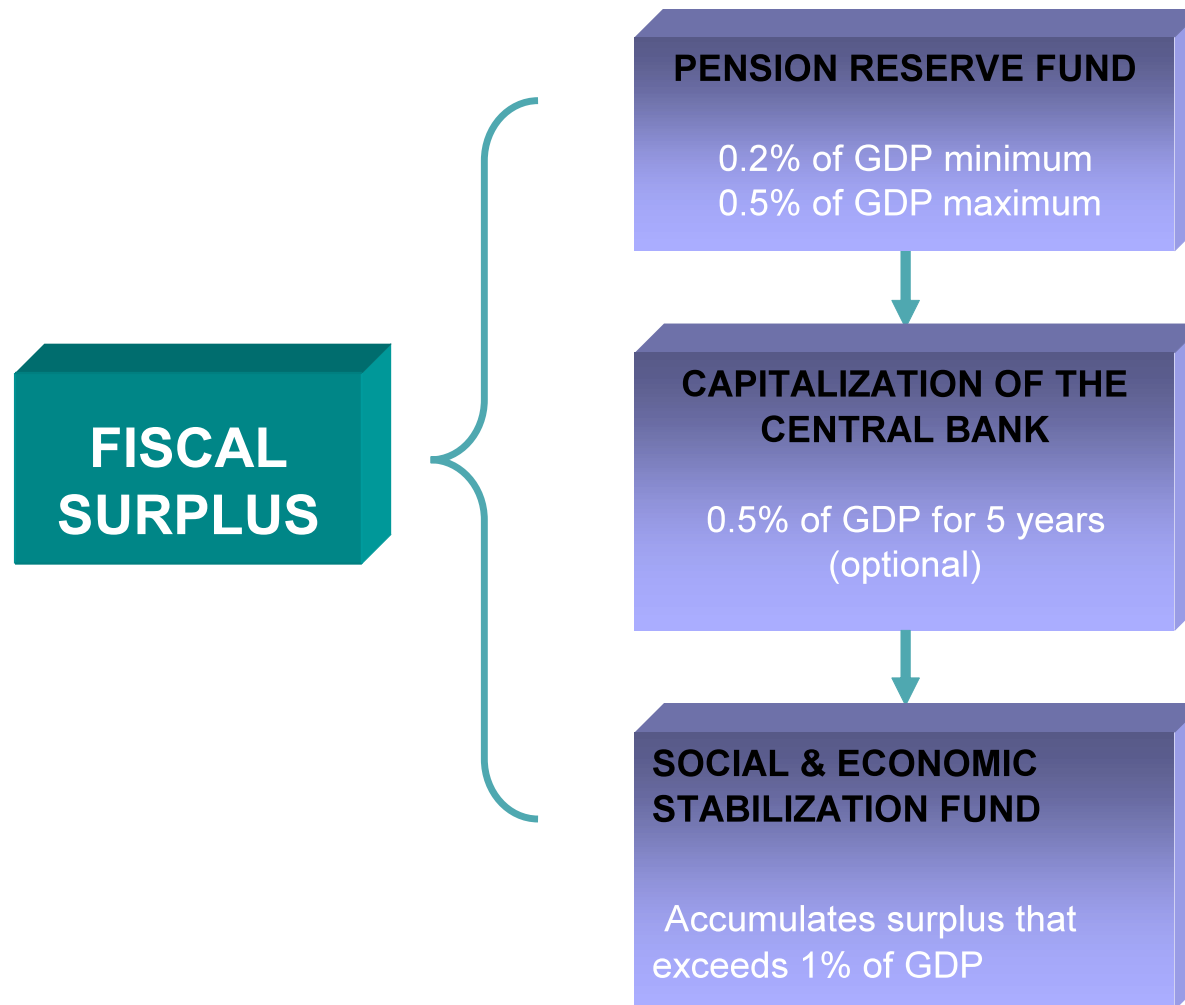
- Come up with parameters for cyclical adjustment using independent committees
 - Copper
 - Trend GDP growth
- Apply cyclical adjustment methodology: close to OECD procedure
- Arrive at estimate of “structural” or long term income
- Spend X% of GDP less than long term income

Chile: institutional issues



- ▣ The rule was self-imposed (no legal constraint) in 2001-2006
- ▣ Fiscal Responsibility Law (2006) made it legal
- ▣ However, law did not specify
 - ▣ Details of cyclical adjustment methodology
 - ▣ Target for structural surplus or deficit
- ▣ Over time, government updated to methodology: eg, correcting for moly prices
- ▣ Over time, government changed surplus target: from 1% of GDP to 0.5% to 0 when crisis hit

Dealing with stocks



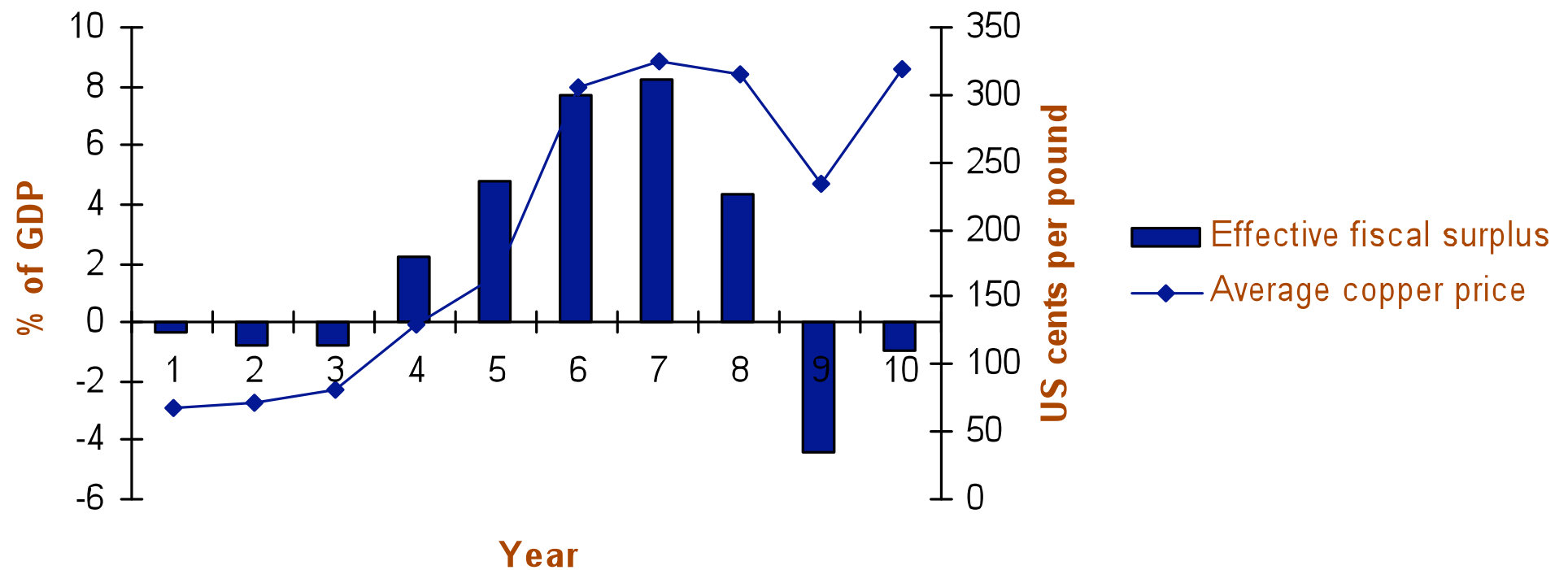
Chile: fiscal results



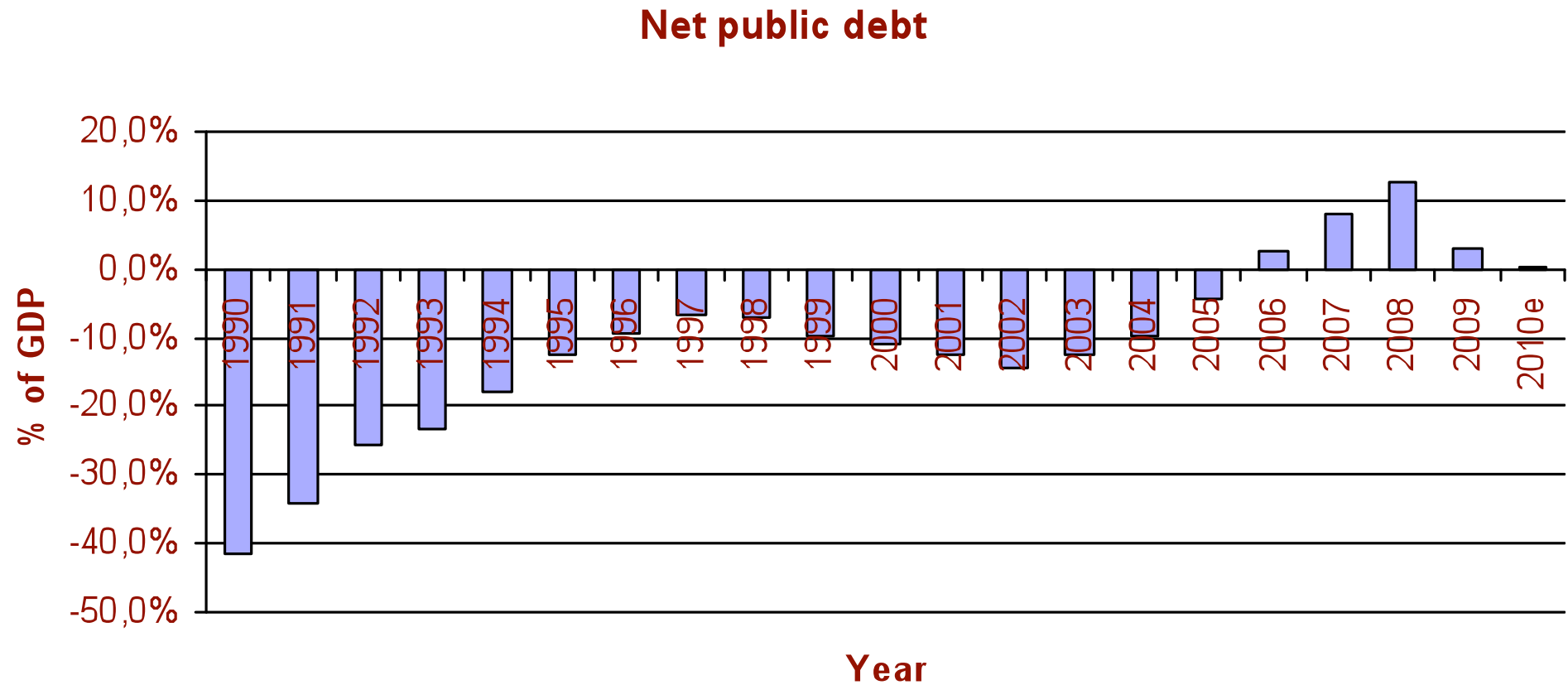
- ▣ Fiscal surpluses and the price of copper
- ▣ Falling public debt
- ▣ Rising financial savings

The end of procyclicality?

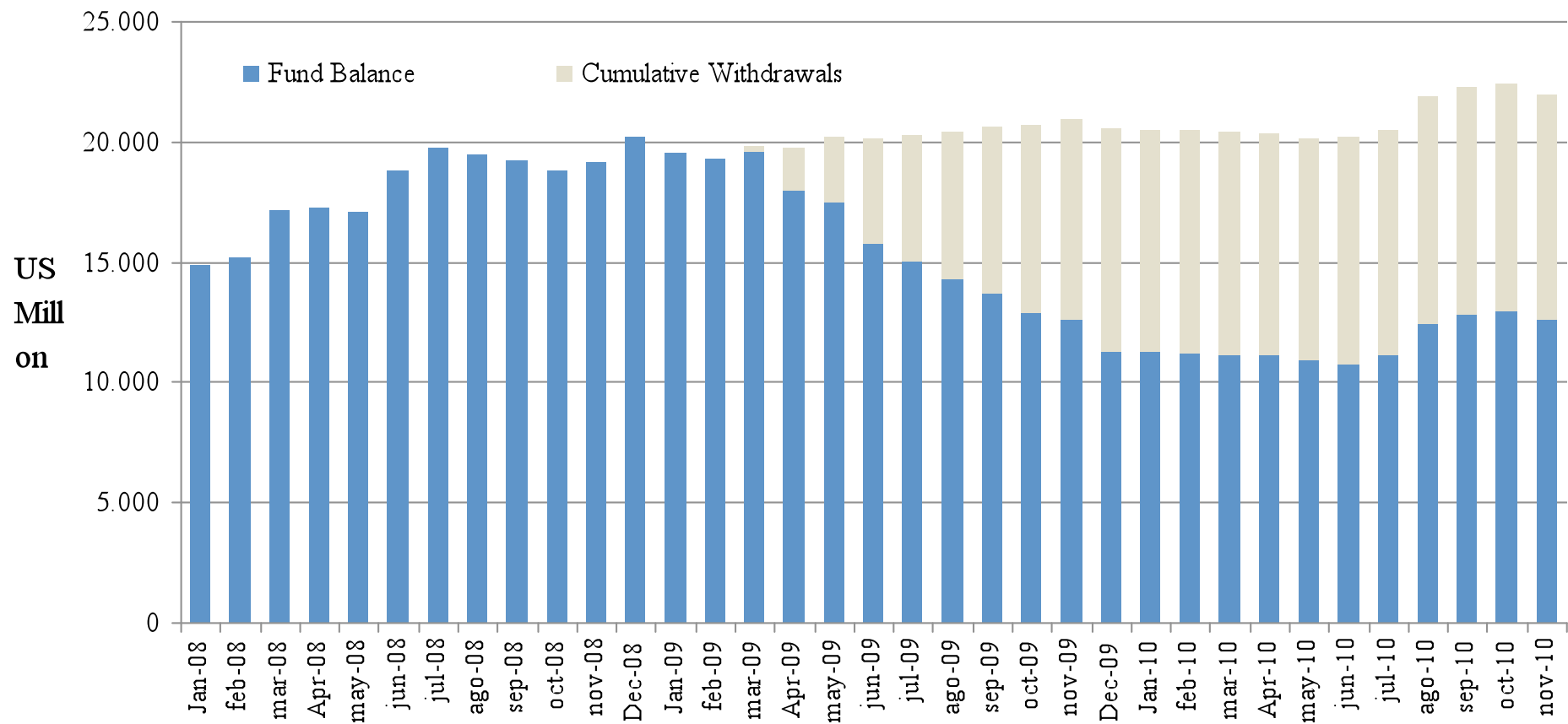
Copper and fiscal surpluses



Public debt: far away from Europe



A stabilization fund that stabilizes

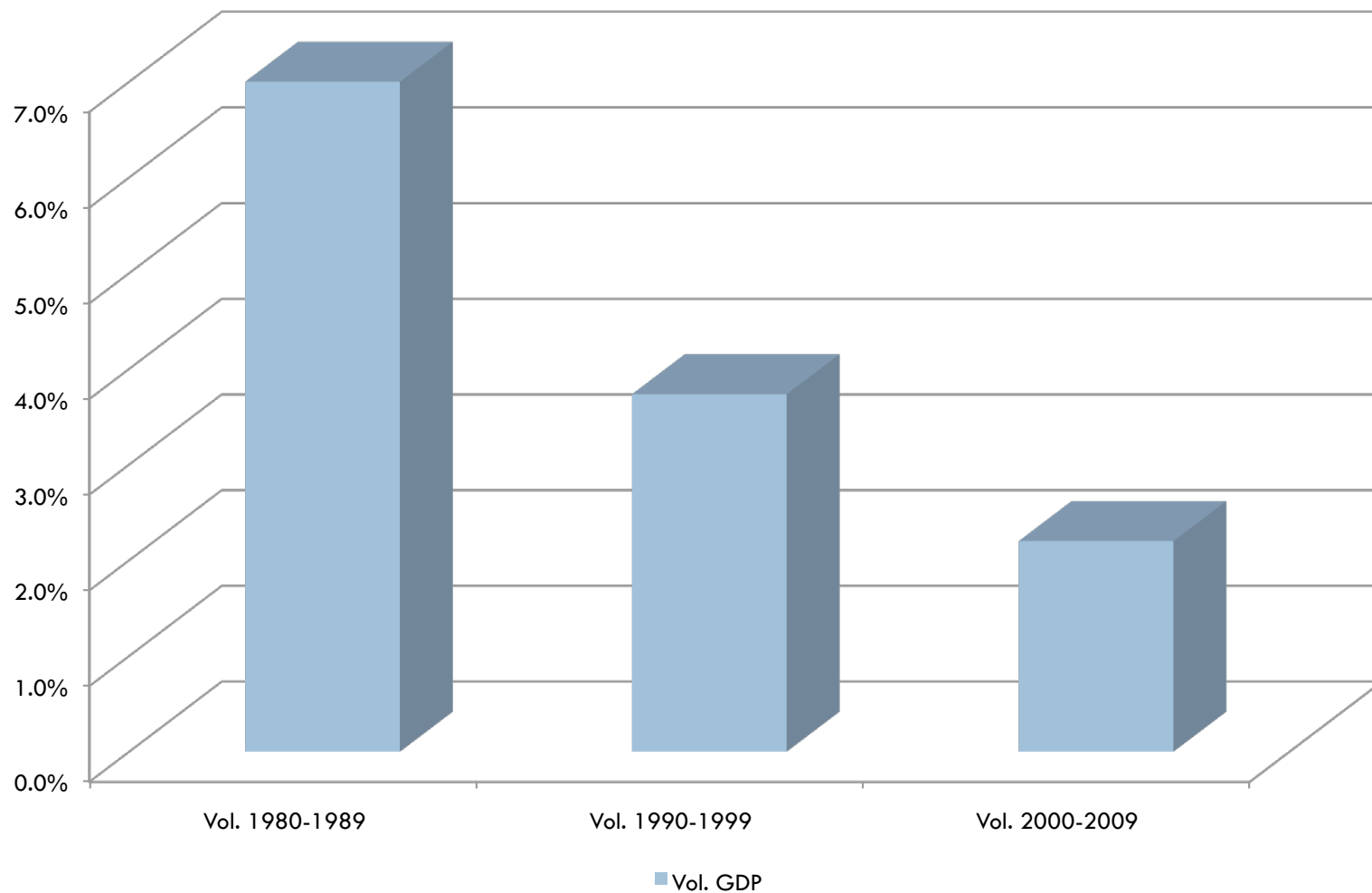


Chile: macro results



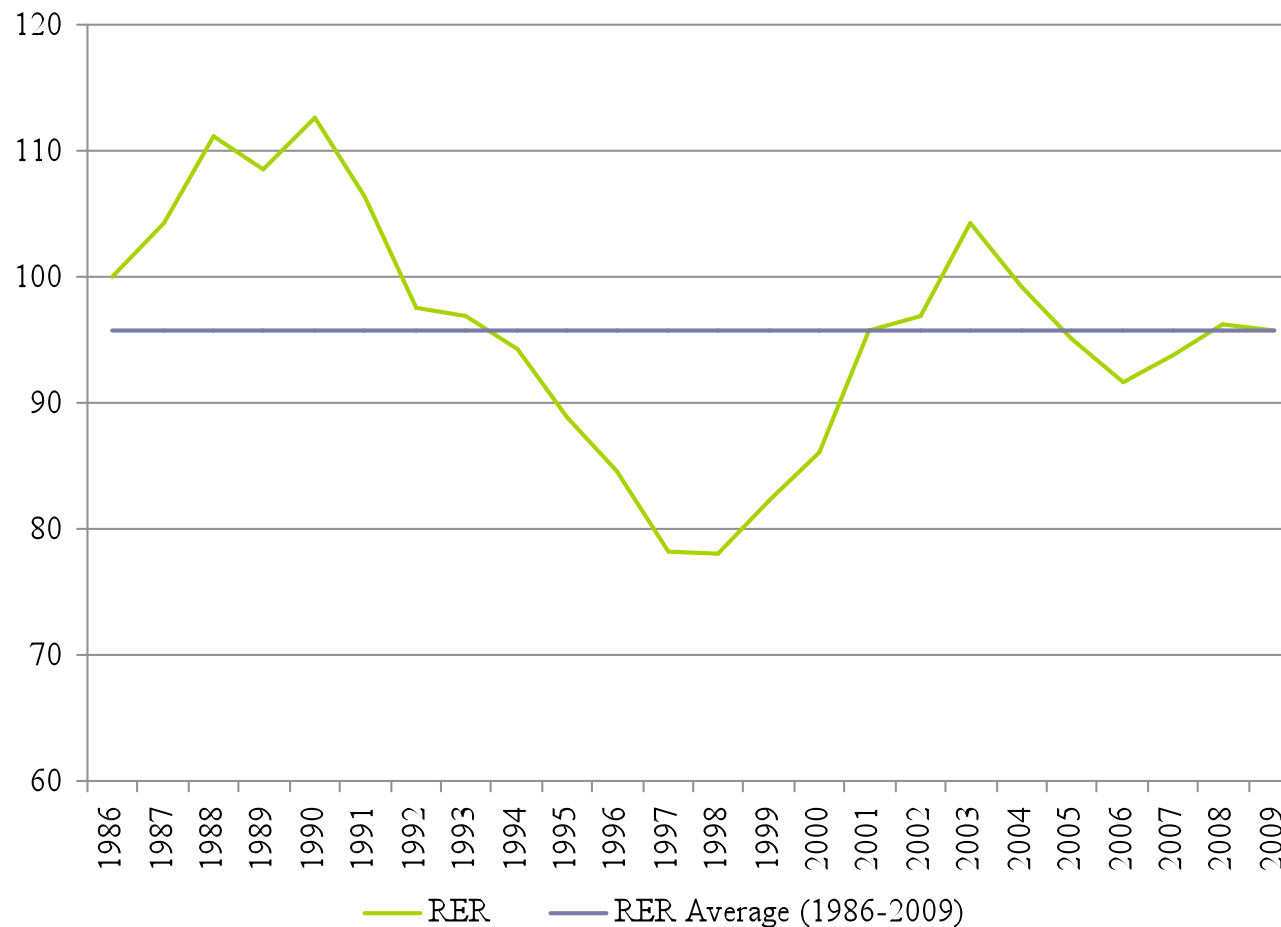
- ▣ Output volatility
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Falling output volatility: a consequence?



Avoiding Dutch disease?

The real exchange rate

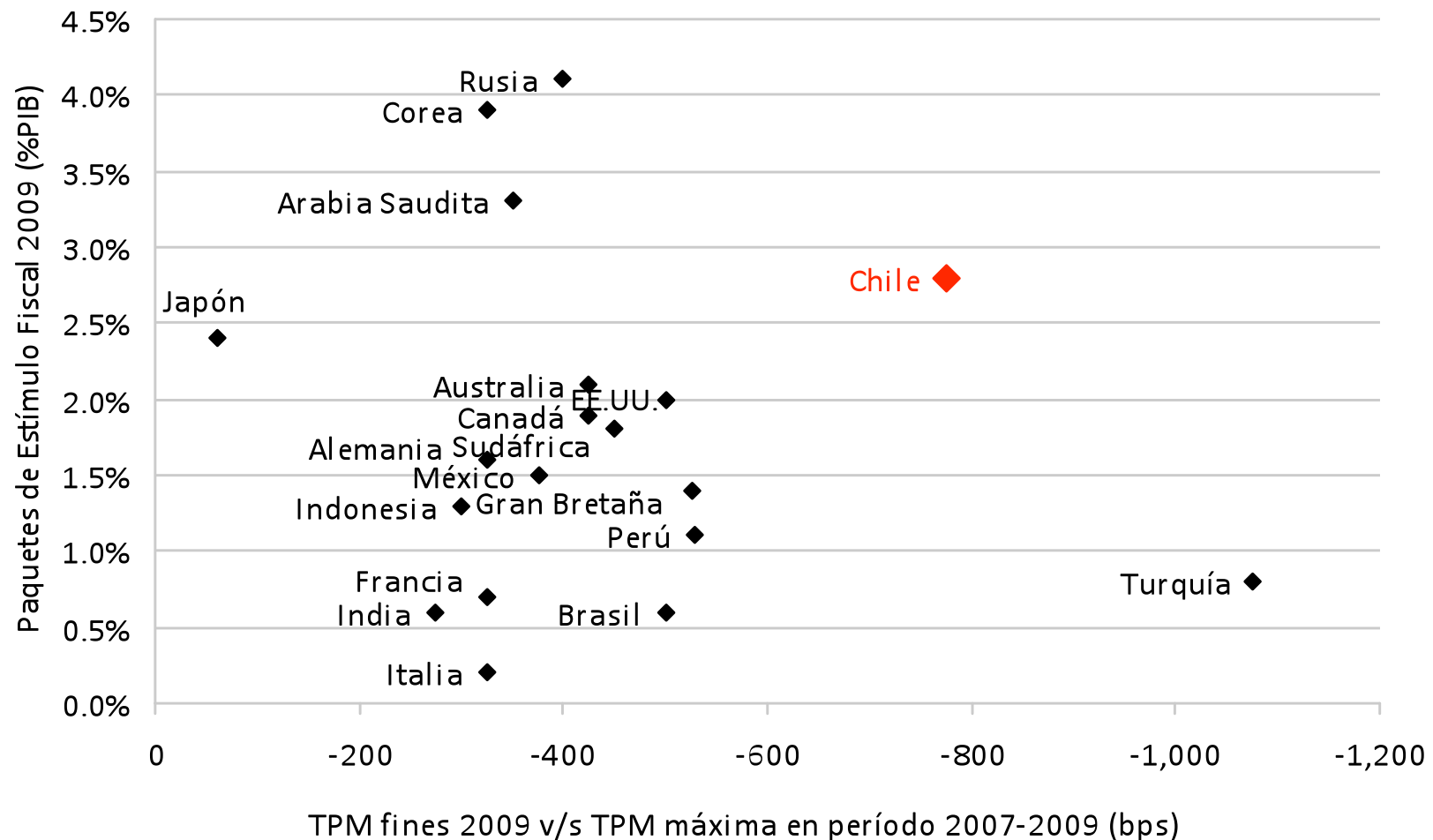


The January 2009 fiscal stimulus



- Overall: 2.8% of GDP
- Additional spending
 - ▣ Infrastructure
 - ▣ Transfers to poor households
- Temporary tax cuts
 - ▣ Stamp taxes
 - ▣ PPMs for SMEs
 - ▣ Individual tax rebates
- Capitalization of Codelco: state-owned copper producer

Fiscal and monetary stimulus





3. Thinking of optimal rules

- ▣ What to correct for?
- ▣ Cyclical adjustment versus PIH
- ▣ Degree of countercyclicality
- ▣ Ex post v. ex ante rules

What to correct for?

- OECD and other standard adjustments only correct for GDP cycle
- Chile procedure includes copper prices and other metals prices
- Is this enough? Probably not (Lane, 2010)
- What are we leaving out?
 - ▣ Activity cycles that are linked to expenditure, not output: what do do with consumption booms and large current account deficits? Recall the Talvi effect.
 - ▣ Sectoral booms (real estate in Spain and Ireland)
 - ▣ Effects of movements in asset prices (again, land)
 - ▣ Effects of movements in the real exchange rate
 - ▣ Changes in the stock of government-held assets
- As usual...tradeoff between accuracy and simplicity

Cyclical adjustment v. PIH

- Cyclical adjustment corrects for deviations of GDP, copper prices and other variables from their long term levels
- To this rule one must add PIH criteria
 - ▣ How much to spend of accumulated assets? The interest rate? Which interest rate?
 - ▣ Need to take a stance on temporary policy fluctuations
 - Temporary tax cuts (or increases)
 - Temporary spending (natural disasters)
- Current debate in Chile
 - ▣ With no stance on temporary policy, all temporary shocks are treated as permanent
 - ▣ With no stance on interest rate, one can consume too much (or too little) of accumulated assets

Degree of countercyclicality



- Rule based on cyclical adjustment + PIH is largely acyclical
- Optimal to have decidedly countercyclical rules
- Engel, Neilson and Valdés (2010): need to have switching regime –different spending coefficients in different states (normal, good, bad)
- Challenges
 - ▣ Simplicity: the taxi driver test
 - ▣ Legitimacy: use of independent fiscal board?

Ex ante versus ex post rules



- Whatever the rule —acyclical, countercyclical— it typically involves an ex ante commitment
 - ▣ Spend according to criteria X and Y and get projected outcome Z
- Results ex post (outcomes) depend on a host of factors other than actions and commitments
 - ▣ Actual economic prices and quantities
 - ▣ Varying elasticities of revenue to those Qs and Ps
 - ▣ Behavior of endogenous components of expenditure
- Conclusion: the probability that the ex-post result will be exactly equal to the ex-ante target is close to zero.

Ex ante versus ex post rules (cont)

- Central banks recognized this problem long ago. Therefore..
 - ▣ They set ranges, not points, as targets
 - ▣ They set variable time spans for achieving targets: from 18 to 24 months....
- Fiscal authorities have to move in the same direction
- Alternatives:
 - ▣ The CB route: set target with band, longish time horizon
 - ▣ The Fiscal Board route: set tight target with escape clause, triggered by decision of independent board

A few last words...



- ▣ Fiscal rules, if designed and applied well, can do a great deal of good
 - Can help change the political economy of the budget process
 - Can reduce deficit bias and procyclicality
- ▣ But... the more we do the better we can hope to do
 - Recent experiences have taught us a lot
 - Great opportunity for a country like Ireland

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