

Fiscal Policy for Commodity Exporting Countries: Experience from Chile

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**IMF Seminar on Commodity Price Volatility
and Inclusive Growth in LIC**
Washington, DC, September 21, 2011

Key Issues

- 1. Chile's Fiscal Institutions: How do they rank in International Comparison?**
- 2. Chile's Fiscal Rule:**
 - What is it?
 - Has it worked?
 - Has it contributed to fiscal and macro stability?
- 3. Fiscal Policy Lessons for Commodity Exporting Countries**
- 4. Conclusion**

1. Chile's Fiscal Policy Institutions in International Comparison

Chile's Fiscal Policy Institutions in International Comparison (1)

Institution	Marks
Fiscal Responsibility Law	√
Financial Management of Budget	√
Budget Horizon	X
Fiscal Rule	√√
Sovereign Wealth Funds	√√

Chile's Fiscal Policy Institutions in International Comparison (2)

Institution	Marks
Management of Gov. Balance Sheet	X
Budget Accountability + Transparency	√√
External Control and Auditing	√
Fiscal Ad hoc Committees	√√
Fiscal Council	X

2. Chile's Fiscal Rule: Design, Implementation, Macro Effects

Chile's Fiscal Rule

- **Cyclically adjusted government balance rule – implies a-cyclical government spending (automatic tax stabilizers are still counter-cyclical)**
- **Unique: targets government spending to cyclically-adjusted revenue, adjusting for cyclical revenue due to cycles in GDP and mineral prices**
- **Has been in place since 2001**
- **Strong governance and political economy / support**
- **Has generally worked well**
- **Except in 2009-10: rule was overruled because of insufficient counter-cyclicality; reestablished 2011**
- **Requires some technical and institutional changes**

A Simple Rule (1)

Cyclical net saving (cyclically adjusted balance minus actual balance) is determined by cyclical revenue (c.a. revenue minus actual revenue):

$$\mathbf{B^* - B = R^* - R}$$

$$= - \left(NMTR_t - NMTR_t \cdot \left(\frac{Y_t^*}{Y_t} \right)^{\epsilon} \right) - (MTR_t - MTR_t^*) - (CR_t - CR_t^*) - (MR_t - MR_t^*)$$

Non-mining Tax Rev* = NMTR* = f (output gap)

Mining Tax Rev* = MTR* = f (trend mineral prices)

Mining Transfers* = CR*+MR* = f (trend min prices)

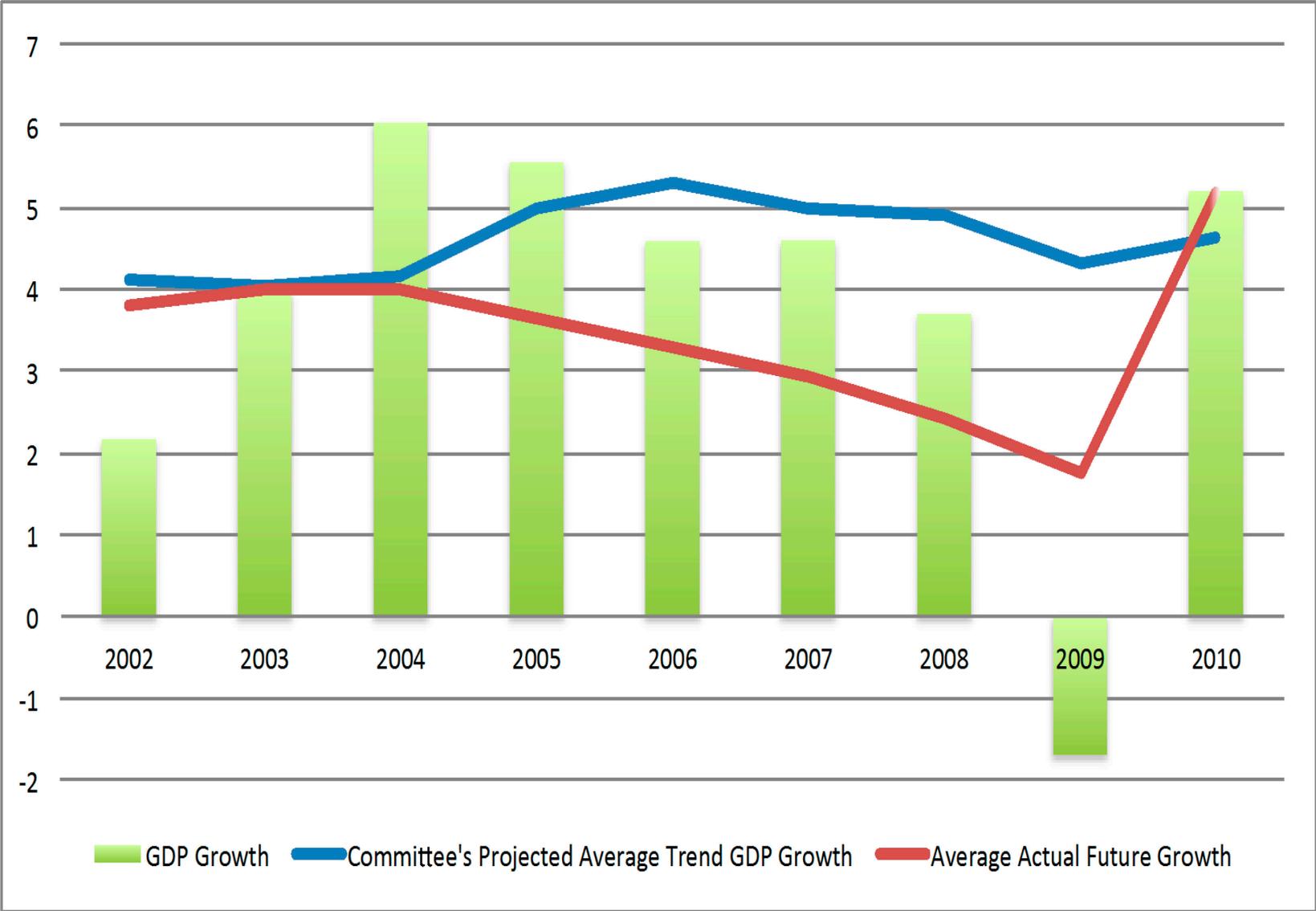
A Simple Rule (2)

- **Actual overall government spending equals trend structural revenue net of structural balance:**

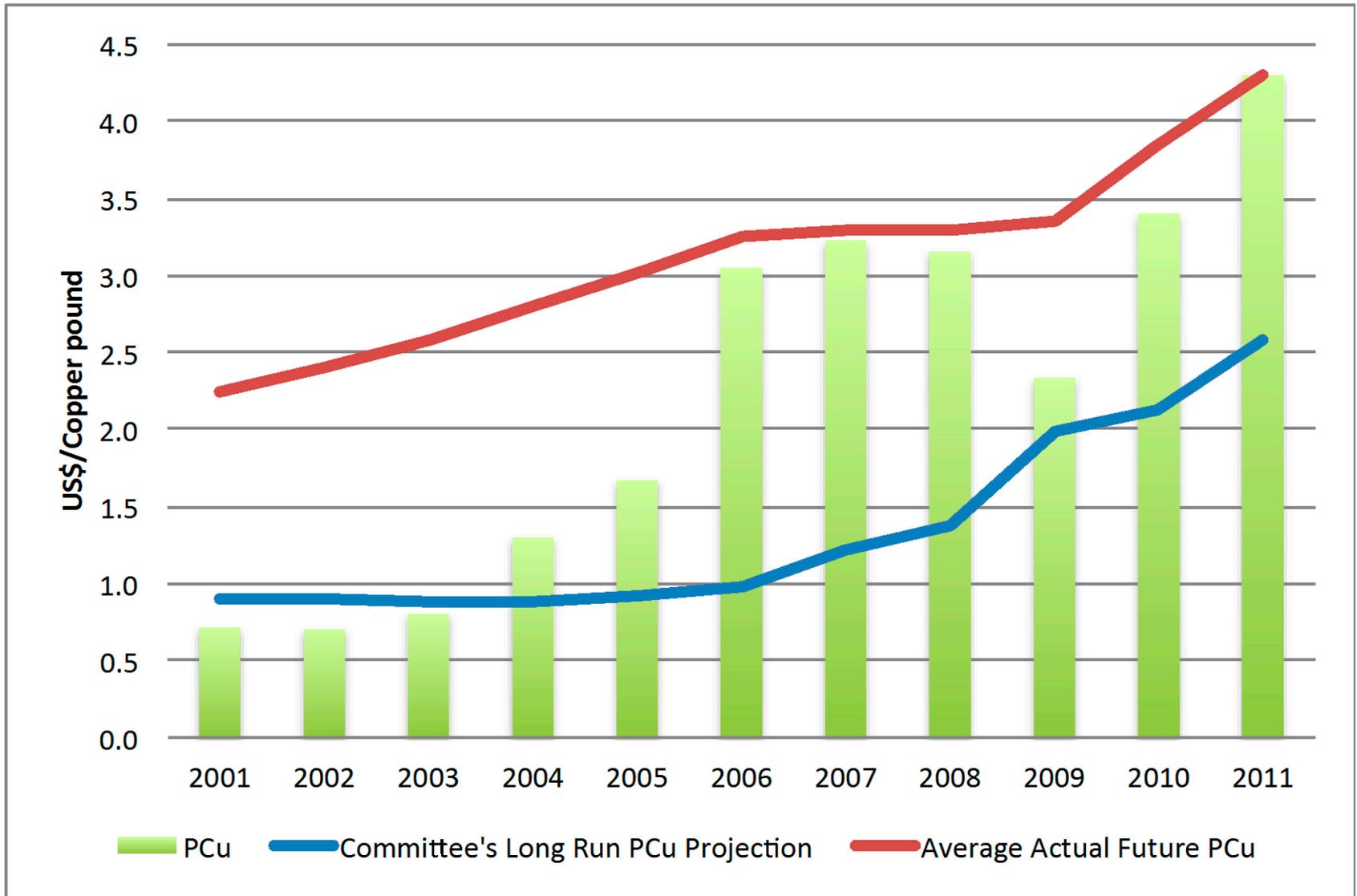
$$G = R^* - B^*$$

- **Hence government spending G is a-cyclical**
- **Government sets c.a. balance B^* (net c.a. saving)**
- **Committees project trend GDP and mineral prices required for estimating c.a. revenue R^* (strong political economy)**

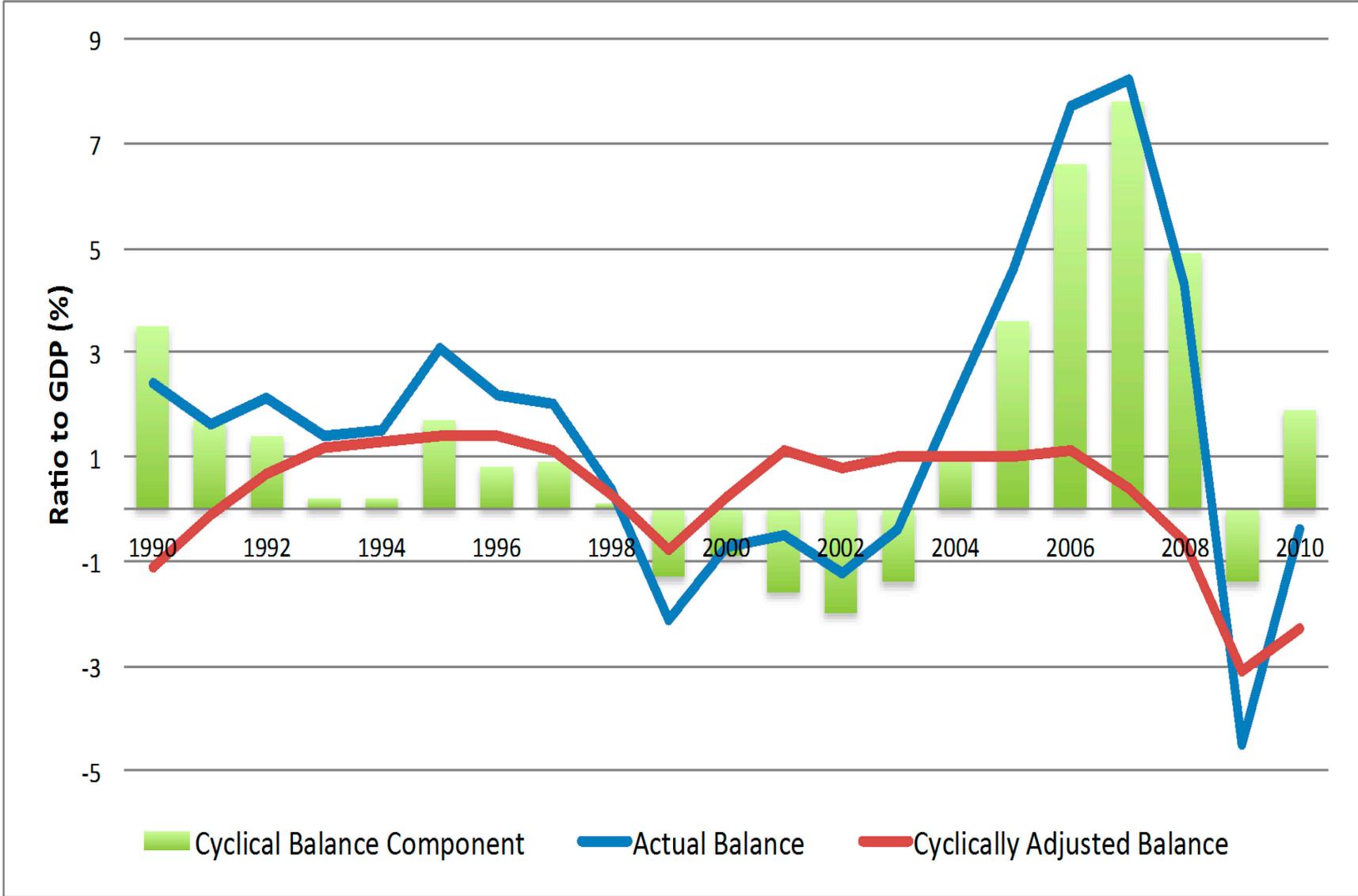
GDP Growth: Committee Forecasts and Actual Growth (%)



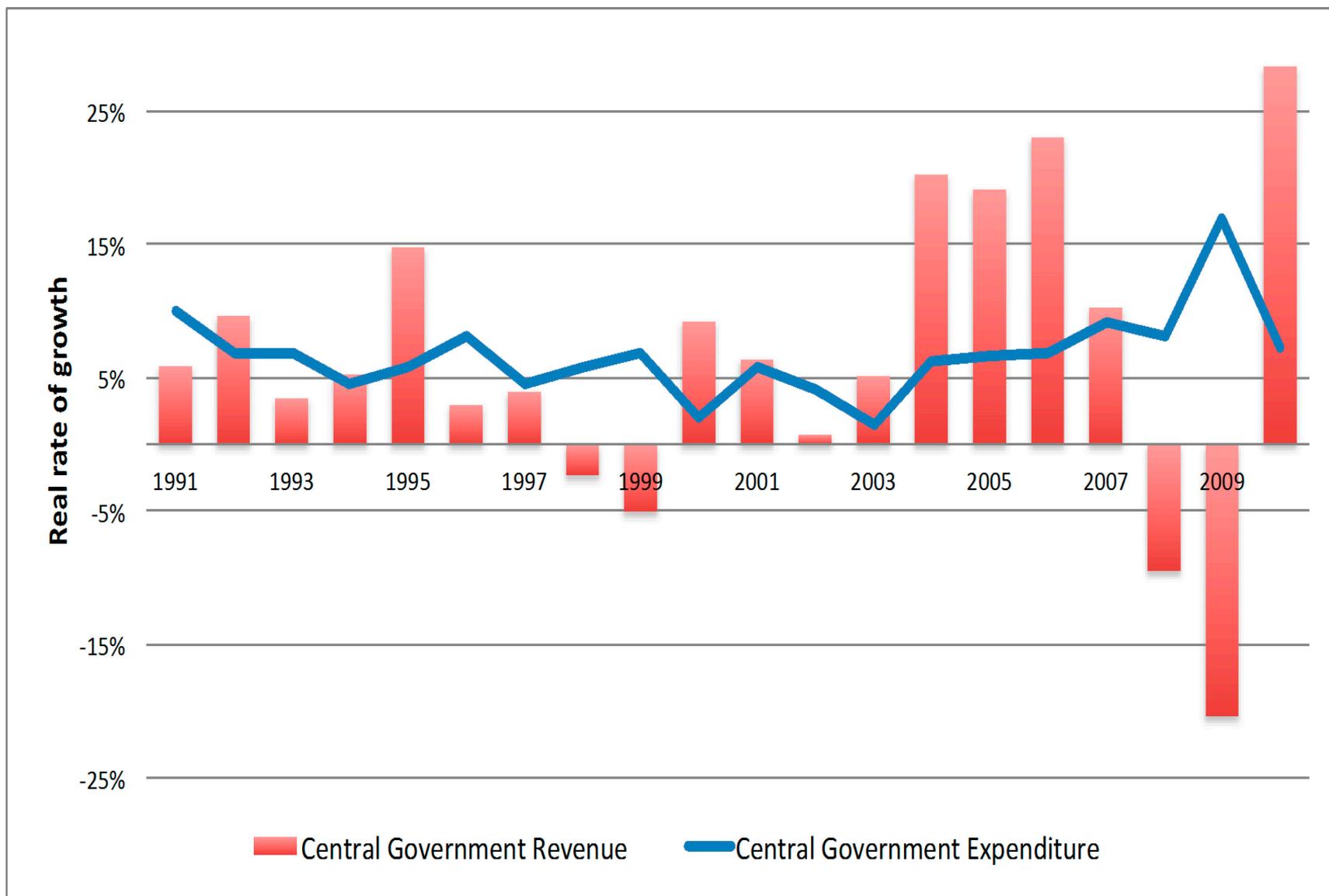
Copper Prices: Committee Forecasts and Actual Prices (\$/lb)



Actual and cyclically-adjusted Government Balance (% of GDP)



Government Revenue and Expenditure Growth Rates (%)



Rule's Fiscal and Macro Effects: Previous Findings

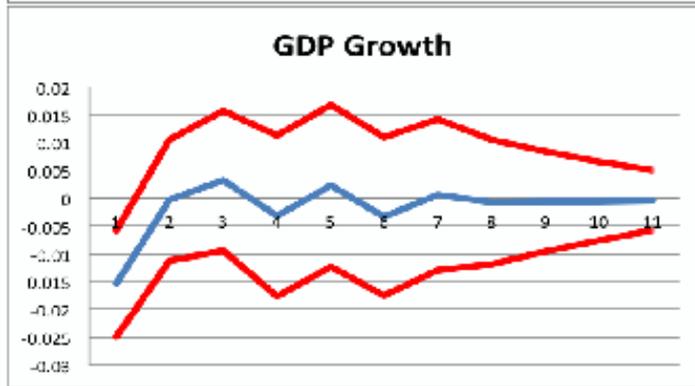
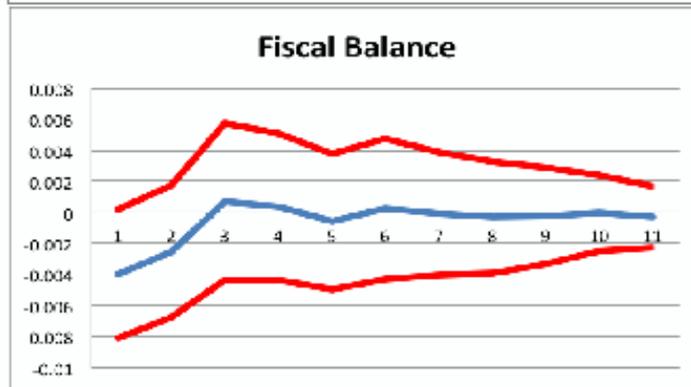
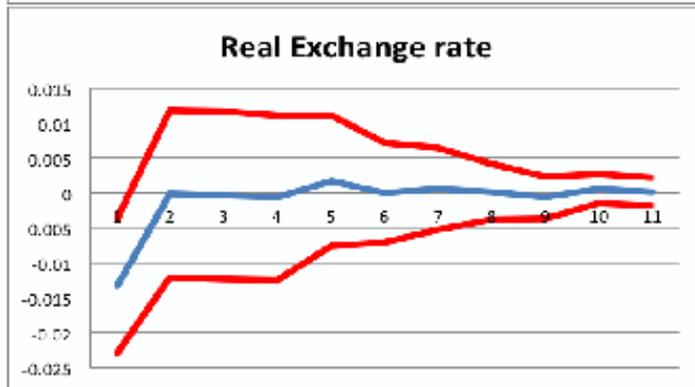
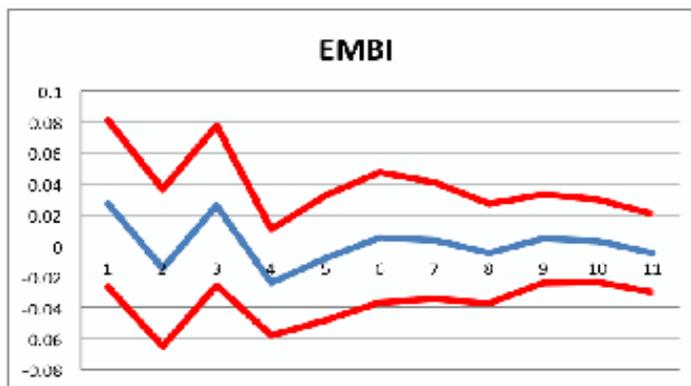
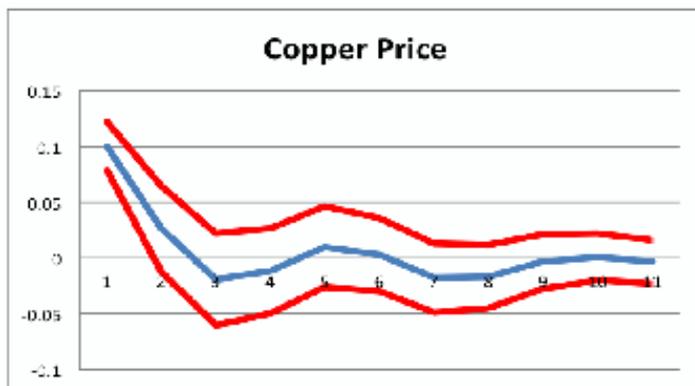
Different studies suggest that Chile's fiscal rule has:

- **Lowered pro-cyclical bias of fiscal policy**
- **Contributed to fiscal sustainability and credibility, lowering the sovereign risk premium**
- **Reduced macroeconomic uncertainty**
- **Lowered volatility of GDP, interest rates, and exchange rate**
- **Reduced dependence on foreign financing during downturns**
- **Improved protection of social programs during downturns**

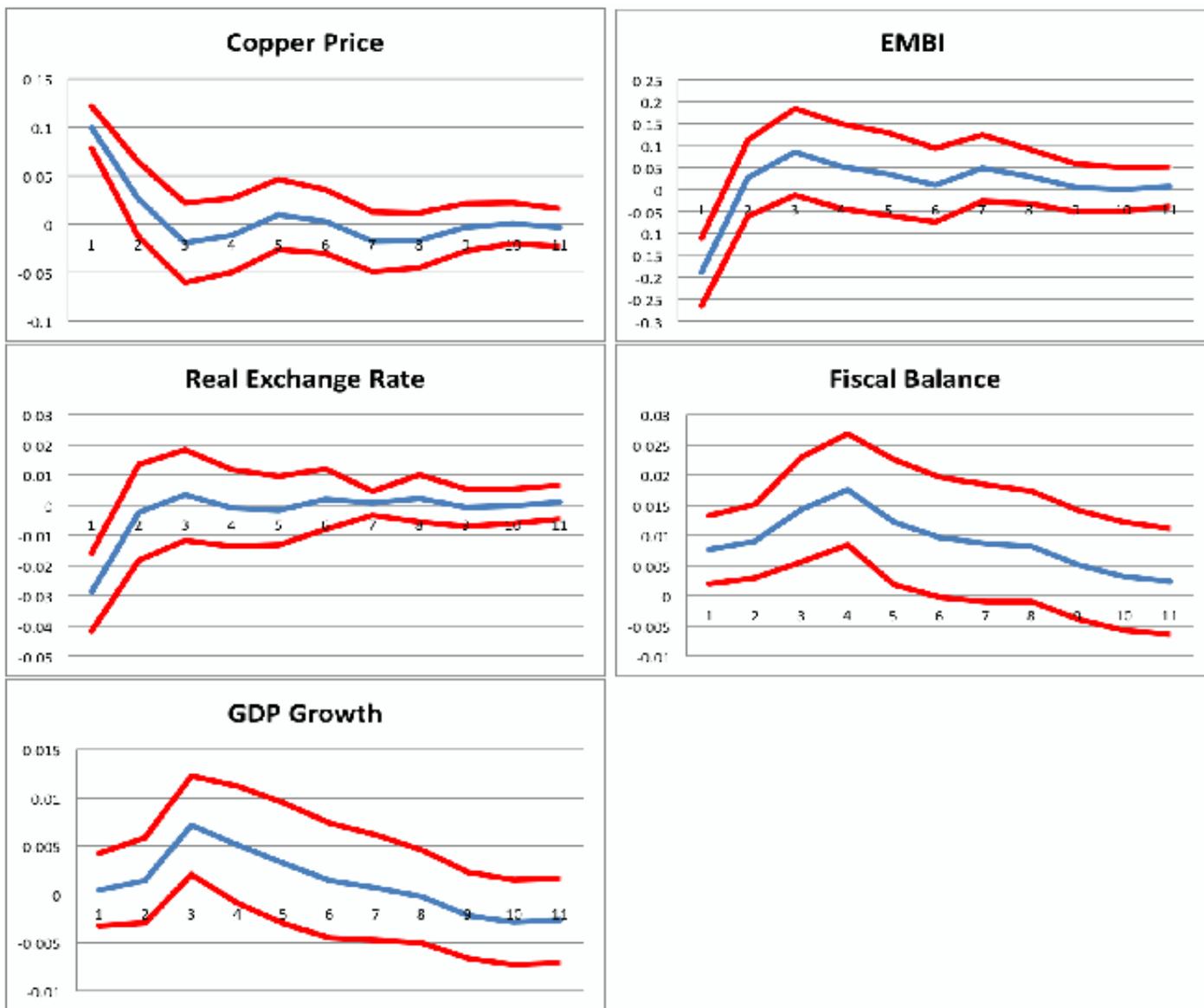
Rule's Fiscal and Macro Effects: New Findings

- Which is the response of government saving and Chile's macroeconomy to a copper price shock under the rule (since 2001) – compared to previously (1990-2001)?
- I use impulse responses from VAR estimations to simulate the response to a 10% copper price shock
- **Before the rule:** no effects on fiscal balance and EMBI, while RER appreciates and growth declines
- **After the rule:** fiscal balance improves, EMBI declines, RER appreciates, and growth rises

Response to a Copper Price before the Fiscal Rule (2001-10)



Response to a Copper Price under the Fiscal Rule (2001-10)



3. Fiscal Policy Lessons for Commodity Exporting Countries

Fiscal Policy in Commodity Exporting Countries

- **Fiscal policy and macro performance: strongly affected by commodity price shocks and cycles**
- **Price booms often lead to over-spending, over-borrowing and under-saving, excessive credit growth and leveraging, domestic asset price bubbles, and exchange-rate misalignment**
- **Price busts often lead to foreign and domestic lending cuts, spending collapse, recessions, and financial crises**

Fiscal Policy in Commodity Exporting Countries

- **World evidence shows that fiscal policy is pro-cyclical (deepening cycles) when governance and institutions are weak, corruption is widespread, fiscal credibility is low, financial markets are underdeveloped and international financial integration is weak (Végh et al., Calderón and Schmidt-Hebbel, others)**
- **What can governments do to break vicious circle between fiscal fragility and commodity price cycles?**
- **International and Chilean experience points toward four key reforms**

1. Strengthen Fiscal Institutions

- **Adopt / reform Fiscal Responsibility Laws**
- **Strengthen government's budget initiative and management**
- **Extend budget horizon from one year to multi-year planning**
- **Maximize fiscal policy transparency and accountability**
- **Strengthen external control and auditing of budget execution and government accounts**

2. Adopt a Fiscal Rule

- **Adopt a Fiscal Rule based on cyclically-adjusted balance of the government**
- **Adjust for both domestic GDP and international commodity price cycles – key budget variables**
- **Make rule consistent with a-cyclical or with counter-cyclical government spending**
- **Preferably based on assumptions and forecasts of key variables provided by independent committees**
- **Possibly anchored in Fiscal Responsibility Law**

3. Start/develop a Sovereign Wealth Fund

- **Key complement of cyclically-adjusted balance rule**
- **Effective and transparent corporate governance**
- **Transparent information of transfers between budget and SWF**
- **Portfolio composition set by maturity preference (length of commodity-price and GDP cycles) and risk aversion**
- **Investment management bound by transparent guidelines and close public monitoring**

4. Adopt Committees and Fiscal Council

- **Special Independent Committees:** focus on narrow tasks, like key budget forecasts or fiscal reforms
- **Independent Fiscal Councils:** based on ad hoc law, Board members voted by Congress. Responsible for following tasks and recommendations:
 - Budget assumptions, projections, monitoring, and recommendation of corrective actions
 - Medium and long-term fiscal projections and assessment of fiscal sustainability and corrective actions
 - Assessment of macro-financial effects of fiscal policy
 - Assessment and recommendations on government asset and liability management
 - Technical advice and public hearings (Congress) on budget management and fiscal reforms

5. Conclusion

Conclusion

- **The world has made much progress in some areas of macro-financial institutions and policies – e.g., independent central banks and the conduct of (conventional) monetary policy**
- **Yet fiscal institutions and fiscal policies face major challenges to strengthen sustainability of fiscal policy, its counter-cyclicality, and its transparency – in industrial and emerging economies alike**
- **Commodity exporting countries face a particularly serious challenge to break out of the vicious circle between fiscal policy weaknesses and commodity cycles. But it can be done.**

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