

Inflation Targeting in Chile

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Central Bank of Chile

March 2007

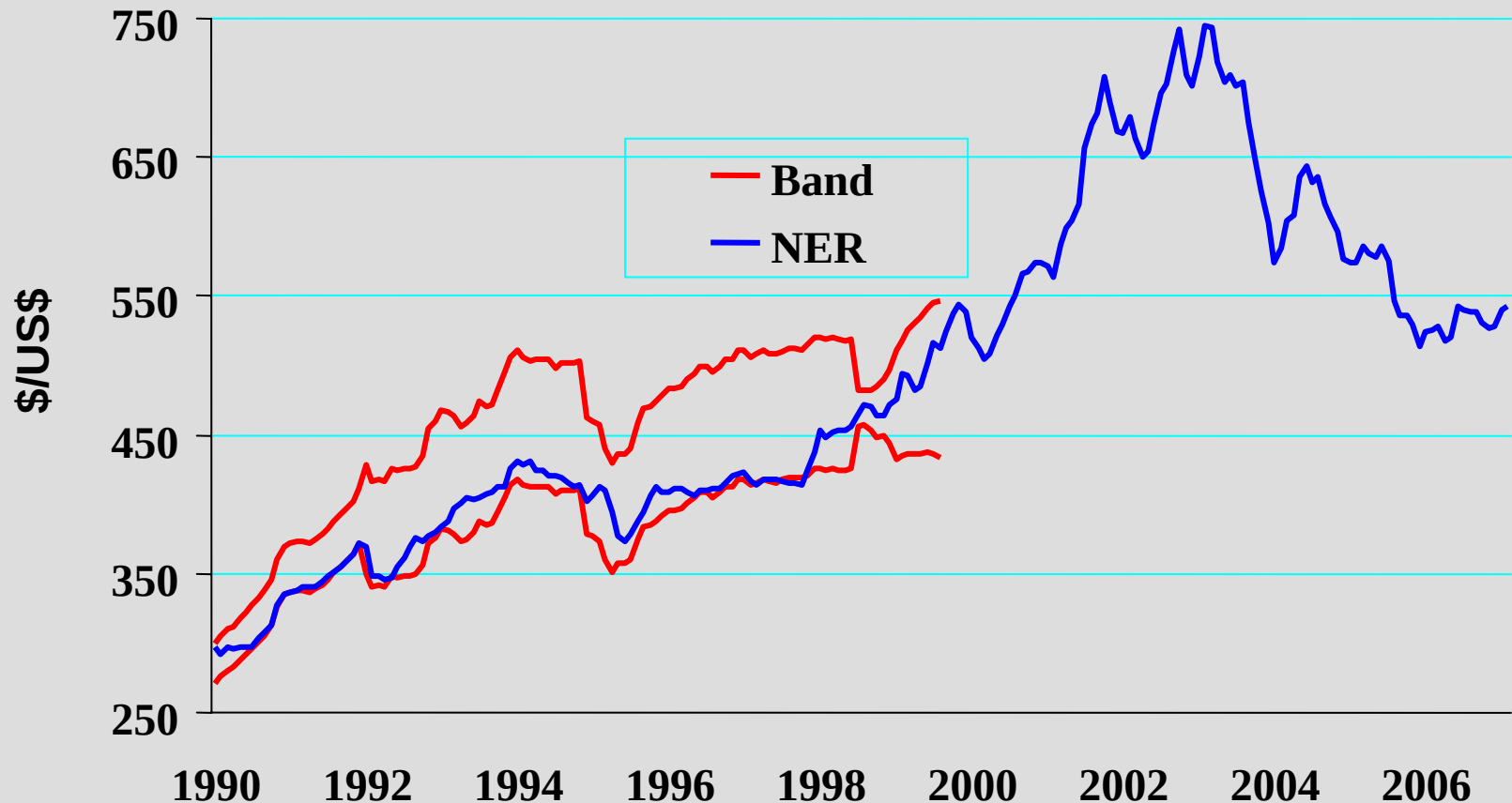
Plan of presentation

- 1. The road to inflation targeting and a floating exchange rate.**
- 2. Monetary policy: Is there an exchange rate target as well?**
- 3. Exchange rate volatility.**
- 4. 2003 – 2004: An episode worth commenting.**
- 5. Final remarks.**

The road to inflation targeting and floating exchange rate

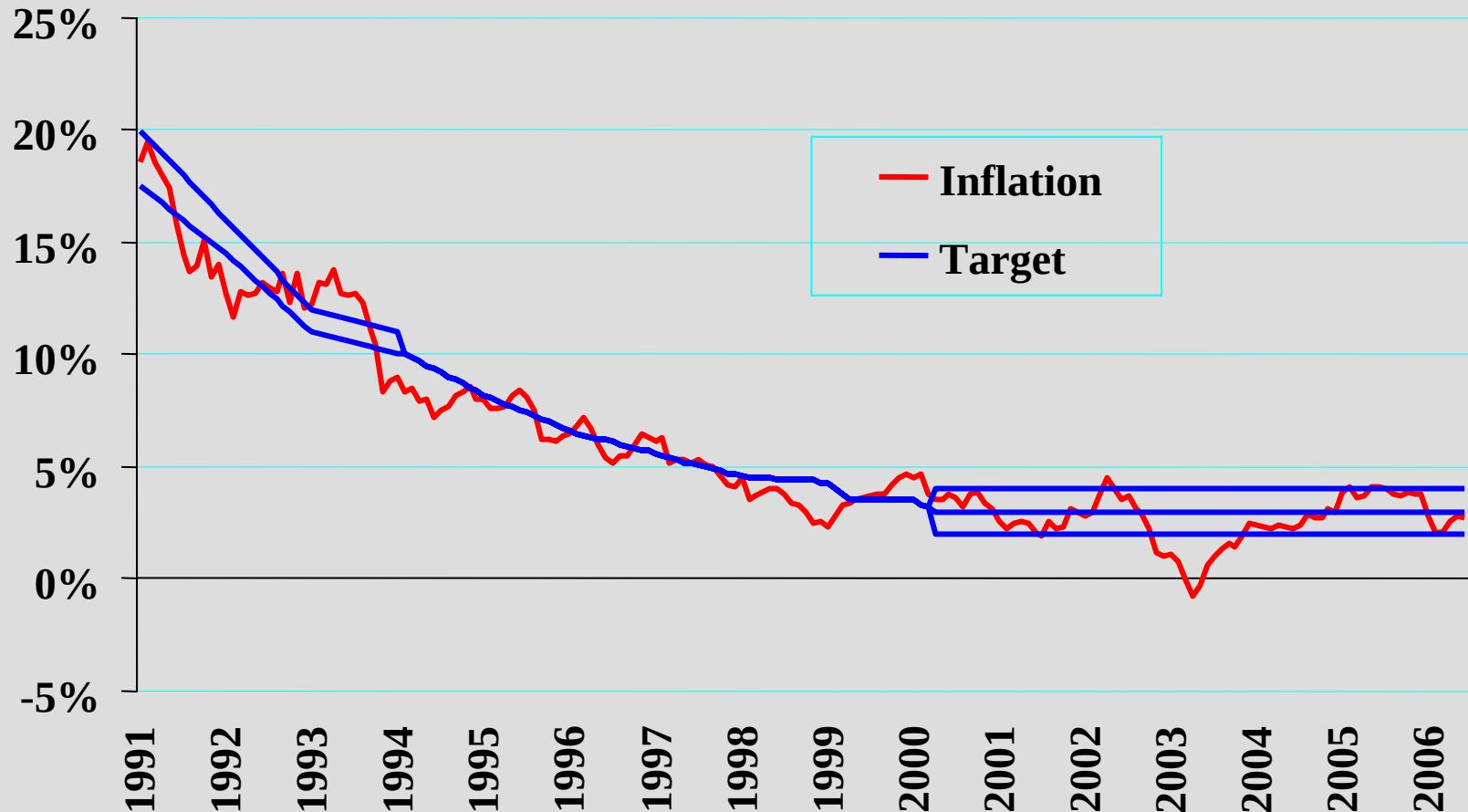
- **ER band, 1984-1999**
- **“Impure” inflation targets, 1991-1999**
- **Capital controls, 1991-1996 and 1996-1998**
- **Foreign exchange (FE) interventions in response to appreciation pressures, 1990-97**
- **FE interventions in response to depreciation pressures, 1998**
- **Loss of credibility in the ER band.**
- **Abandonment of the band; ER floating 1999.**
- **Full adoption of inflation targeting, 2000.**
- **Nominalization of monetary policy, 2001.**
- **Limited FE intervention 2002 y 2003.**

Nominal Exchange Rate, 1990-2005



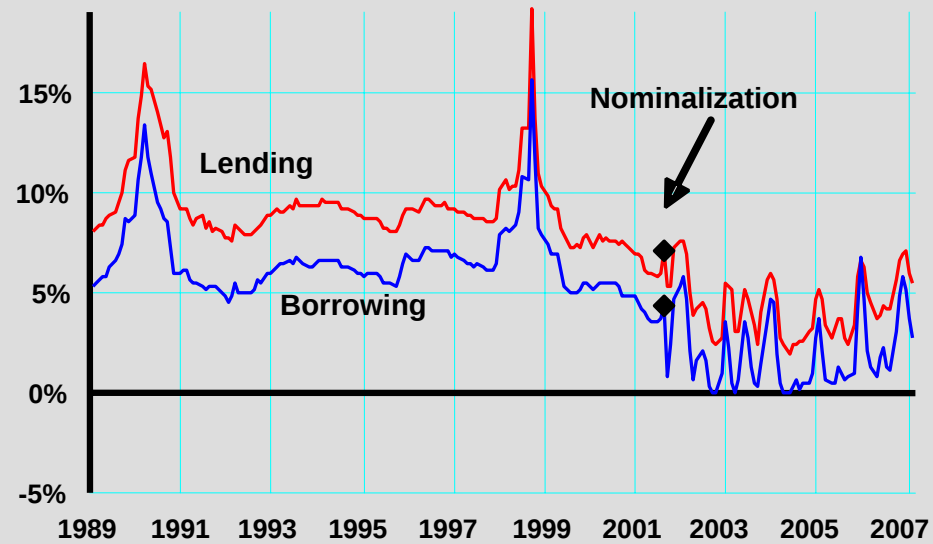
Source: Central Bank of Chile.

Inflation and inflation targets 1991-2005



Source: Central Bank of Chile.

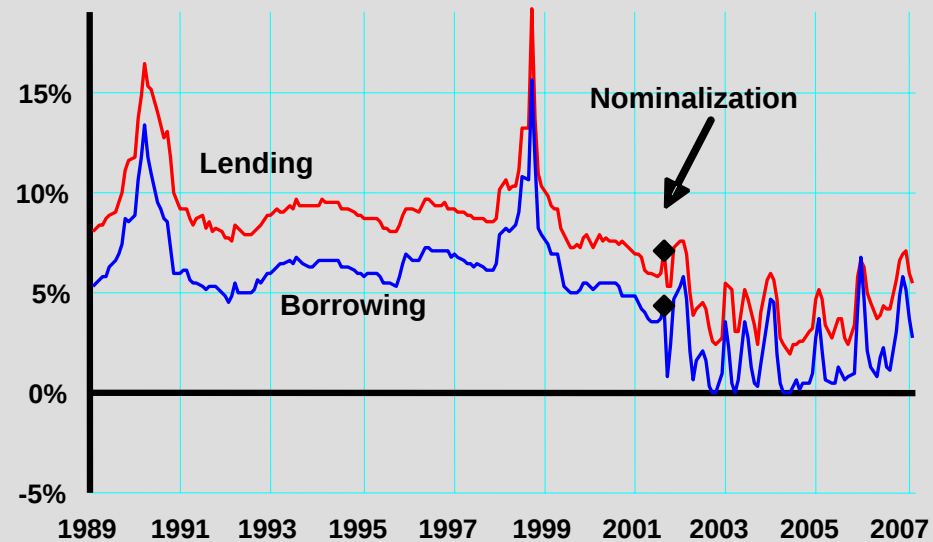
CPI-adjusted Interest Rates (UF) 90-365 days



Nominalization increased the volatility of CPI-adjusted interest rates ...

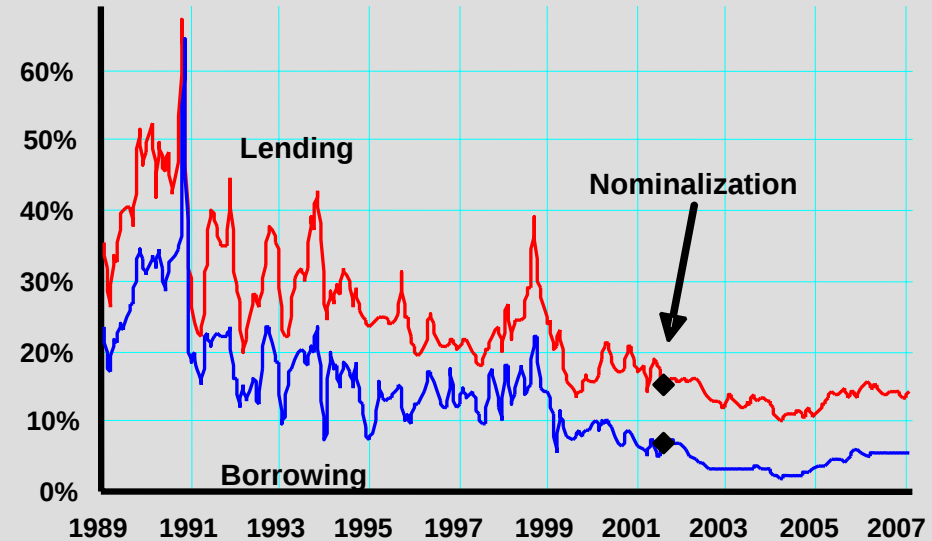
Source: Central Bank of Chile.

CPI-adjusted Interest Rates (UF) 90-365 days



Nominalization increased the volatility of CPI-adjusted interest rates ...

Nominal Interest Rates 90-365 days

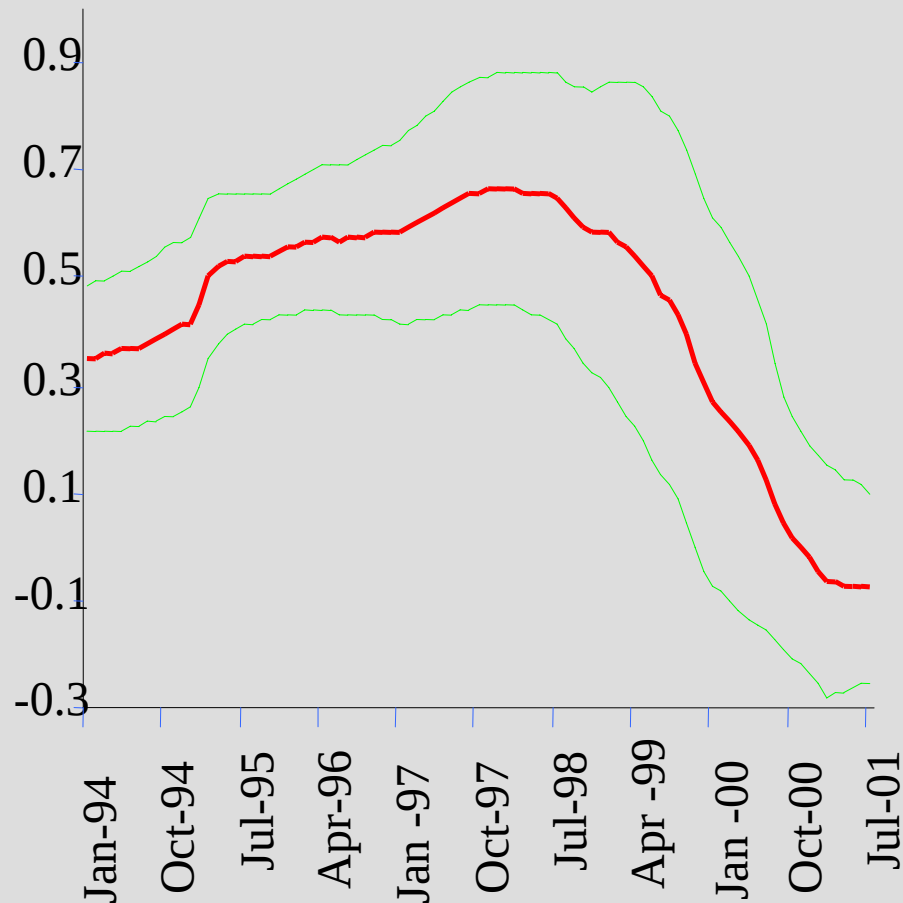


... while nominal rates stabilized.

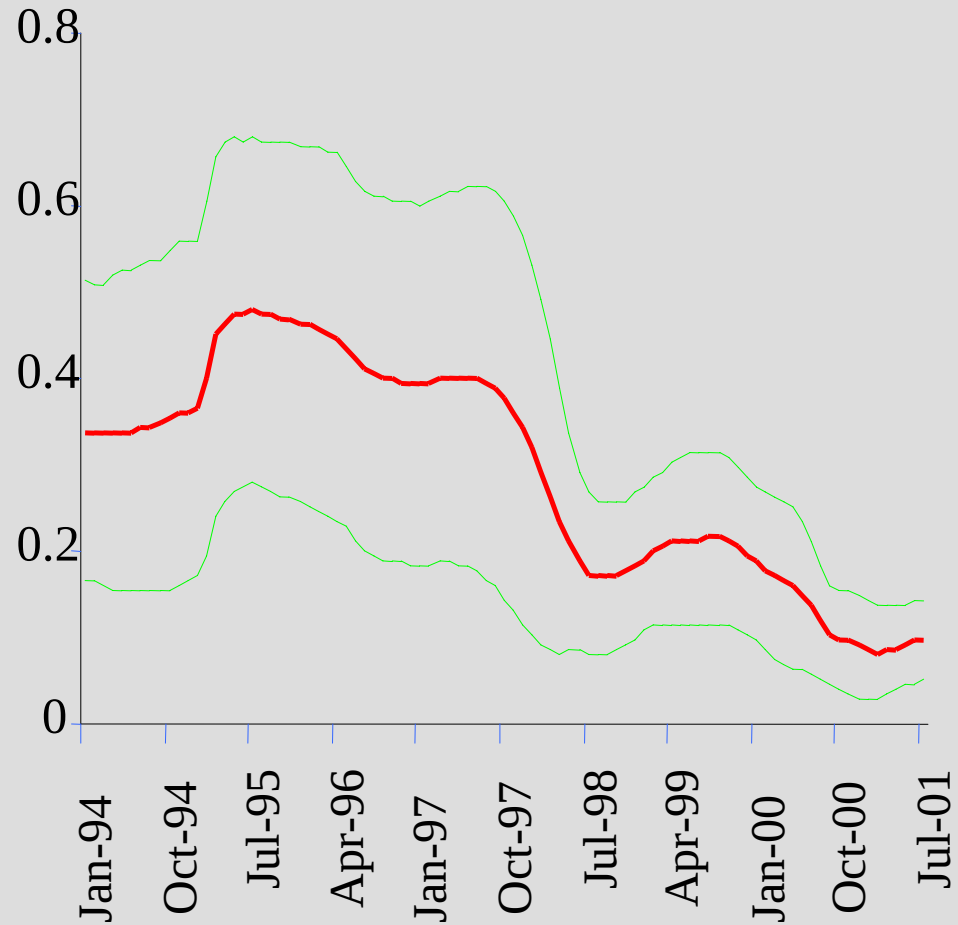
Source: Central Bank of Chile.

As in other economies, simple passthrough coefficients have fallen

Fixed initial date



Variable initial date



García, C. and J. Restrepo (2002). "Price Inflation and Exchange Rate Passthrough in Chile." Central Bank of Chile, Working Paper N°128.

Does monetary policy react to changes in the nominal exchange rate?

Schmidt-Hebbel and Werner (1) made an empirical exercise to answer this question. First, they adjusted a Taylor rule sensitive to changes in the NER:

$$R_t = \beta_1 + \beta_2 R_{t-1} + \beta_3 (InfExp - IT)_t + \beta_4 Ygap_t + \beta_5 dep_t + \beta_6 Gbond_t$$

(1) Schmidt-Hebbel, K. and A. Werner (2002). “Inflation Targeting in Brazil, Chile and Mexico: Performance, Credibility, and the Exchange Rate”, *Economía*, 2 (2): 30-89.

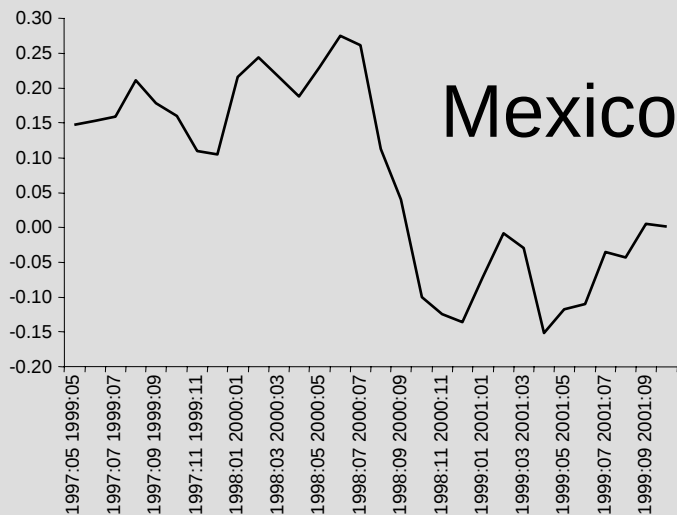
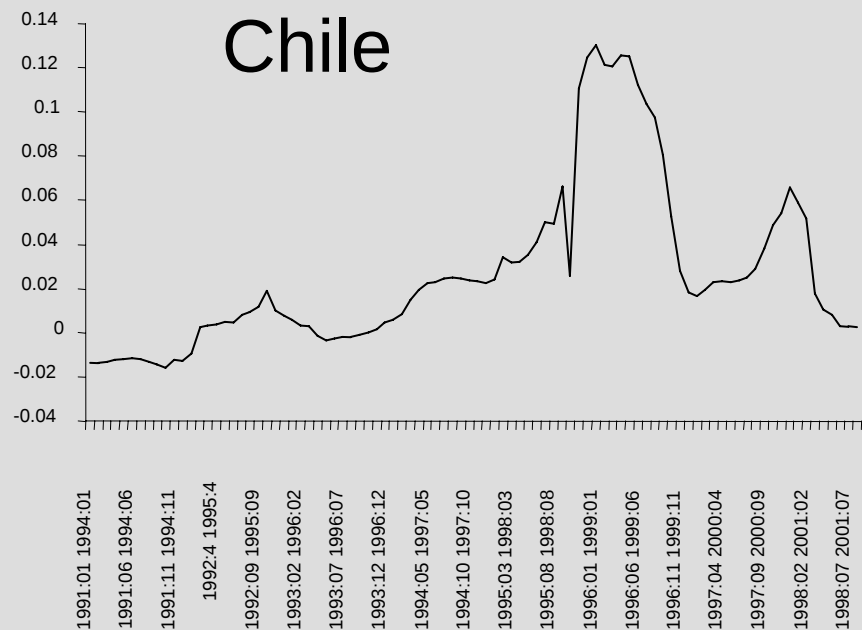
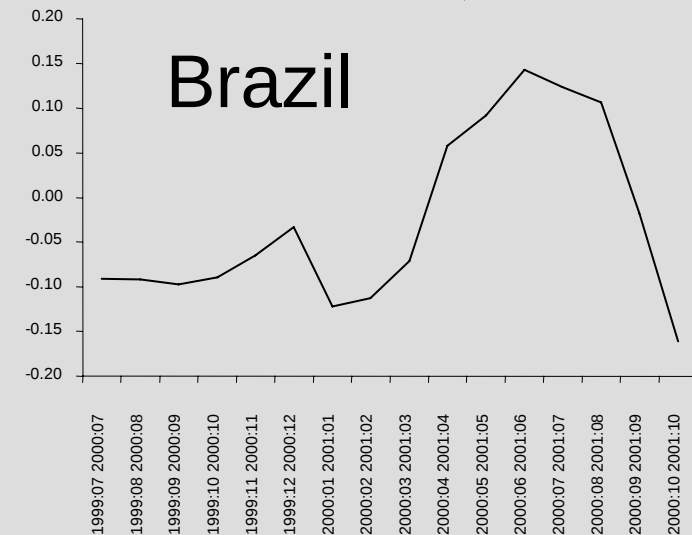
OLS Estimates of Taylor Rules

	<i>Brazil</i>	<i>Chile</i>		<i>Mexico</i>	
<i>Real interest rate</i>	<i>1999– 2001</i>	<i>1991– 2001</i>	<i>1997– 2001</i>	<i>1997– 2001</i>	<i>1999– 2001</i>
Real interest rate lag	0.89 (3.88)*	0.92 (25.20)*	0.92 (14.6)*	0.47 (4.79)*	0.68 (5.45)*
Expected inflation- inflation target	0.30 (2.42)	0.01 (0.04)	0.01 (0.05)	0.08 (0.16)	−0.66 (−1.01)
Output gap	0.02 (0.50)	0.01 (1.56)	0.02 (1.15)	0.11 (1.34)	0.08 (1.25)
Nominal exchange rate	−0.01 (−0.02)	−0.01 (−0.27)	0.01 (0.41)	0.16 (1.51)	−0.03 (−0.23)
Long-term government bond	0.32 (0.51)	0.03 (0.64)	0.02 (0.09)	1.98 (4.02)*	1.49 (2.86)*
Trade deficit lag (exports-imports)	−0.01 (−0.1)*	−0.01 (−2.49)*	−0.01 (−1.75)	−0.01 (−3.2)*	−0.01 (−2.7)*
<i>Summary statistic</i>					
Adjusted R^2	0.75	0.88	0.87	0.80	0.81
Durbin-Watson statistic	1.92	1.64	1.68	2.17	1.95

**There is no evidence
that monetary policy
has a systematic
concern for NER
movements ...**

Source: Schmidt-Hebbel & Werner (2002)

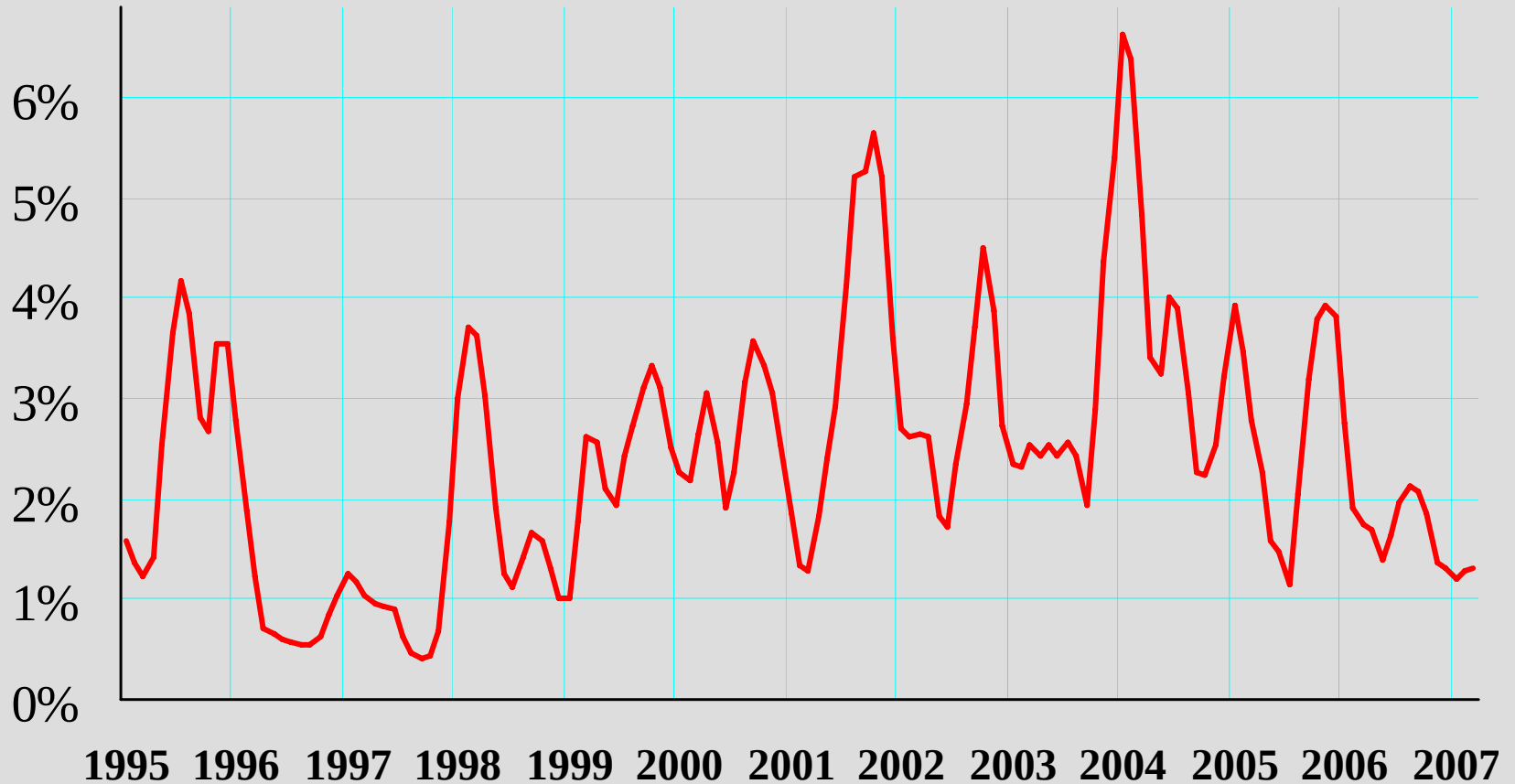
OLS Estimates of Taylor Rules ("Rolling coefficients")



..but there are episodes where the NER has been considered in monetary policy decisions.

Source: Schmidt-Hebbel & Werner (2002)

NER Volatility (CV within a month)



Source: Central Bank of Chile.

Volatilidad cambiaria (*)

(Porcentaje)

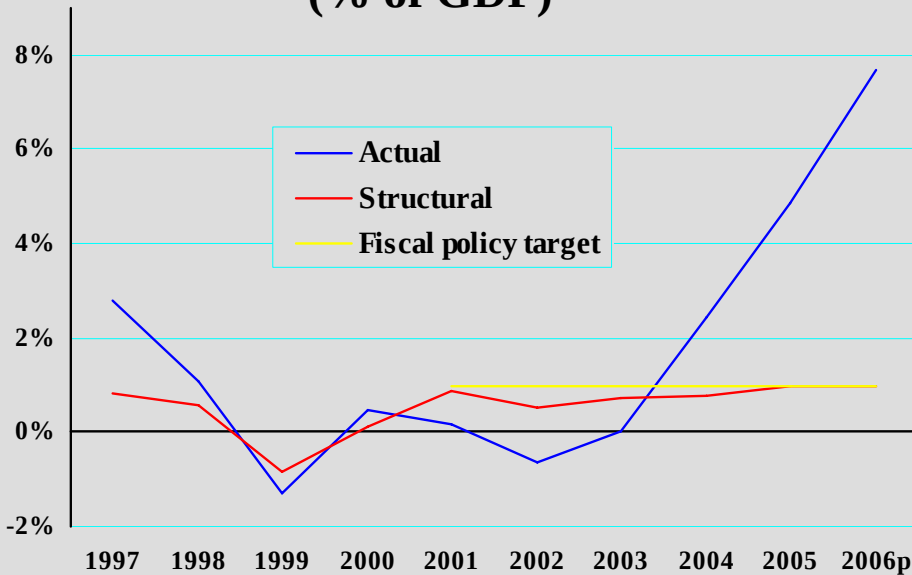
	CH\$	Yen	Euro	AUS\$	NZ\$	SAF\$
2001	8.3%	10.1%	11.7%	13.3%	13.0%	12.4%
2002	9.6%	9.7%	9.1%	8.7%	9.9%	19.2%
2003	8.2%	8.2%	10.3%	10.0%	10.4%	19.7%
2004	10.9%	9.5%	10.6%	12.9%	13.8%	21.0%
2005	9.3%	8.7%	9.0%	9.3%	10.2%	15.4%
2006	7.1%	8.2%	7.6%	8.6%	11.3%	15.3%

(*) La volatilidad cambiaria fue estimada empleando la metodología Riskmetrics de JP Morgan Chase, que consiste en efectuar una modelación GARCH de la varianza del retorno logarítmico del tipo de cambio.

FUENTE: Bloomberg y Banco Central de Chile.

Macroeconomic environment

**Fiscal Balance (B.C.G.)
(% of GDP)**

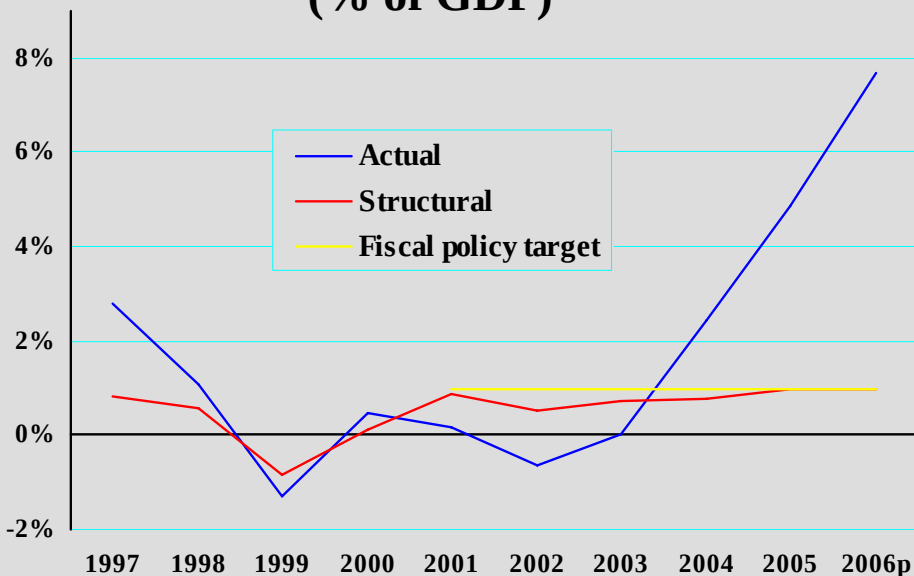


Source: Ministry of Finance.

**Fiscal policy has
helped ...**

Macroeconomic environment

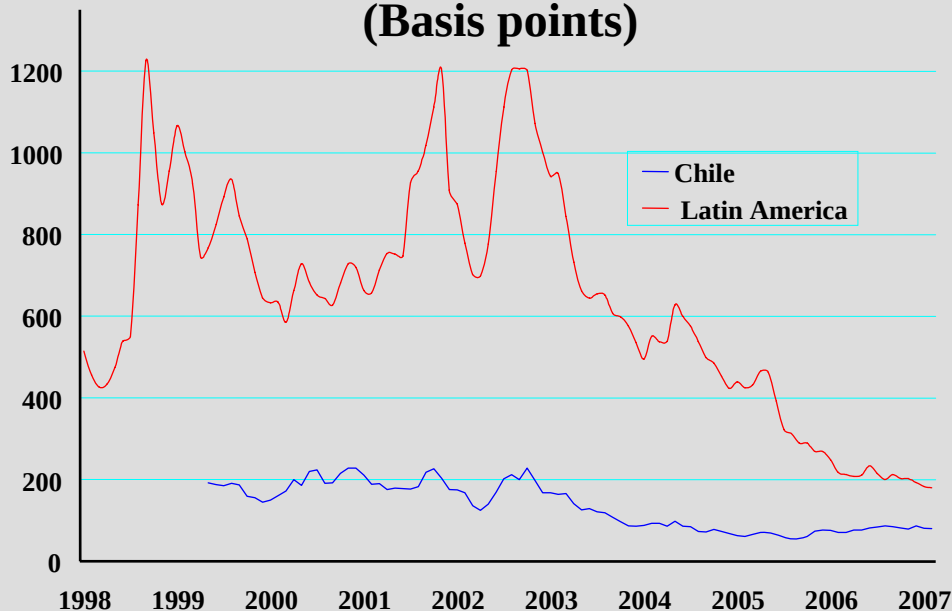
Fiscal Balance (B.C.G.) (% of GDP)



Source: Ministry of Finance.

**Fiscal policy has
helped ...**

Sovereign Spread (Basis points)

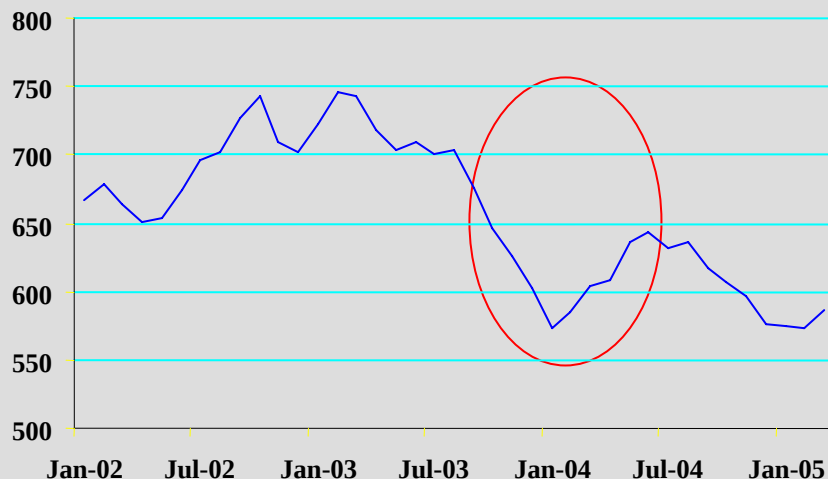


Source: Central Bank of Chile.

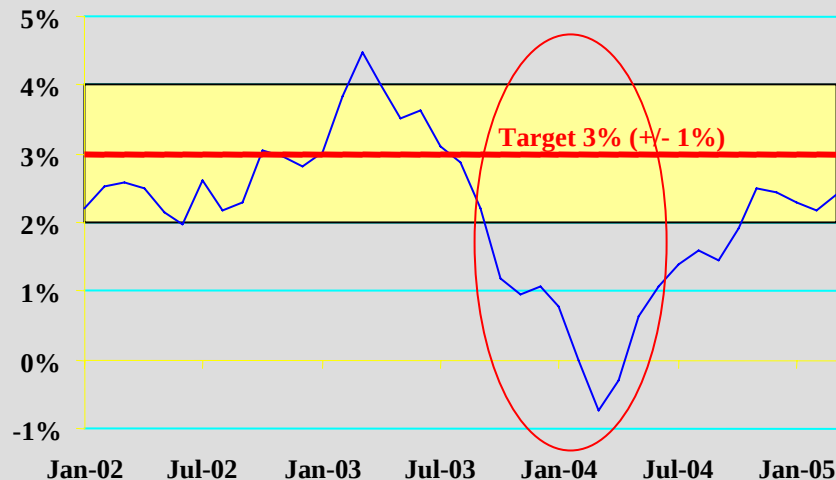
**...along with
country risk.**

A policy episode worth commenting

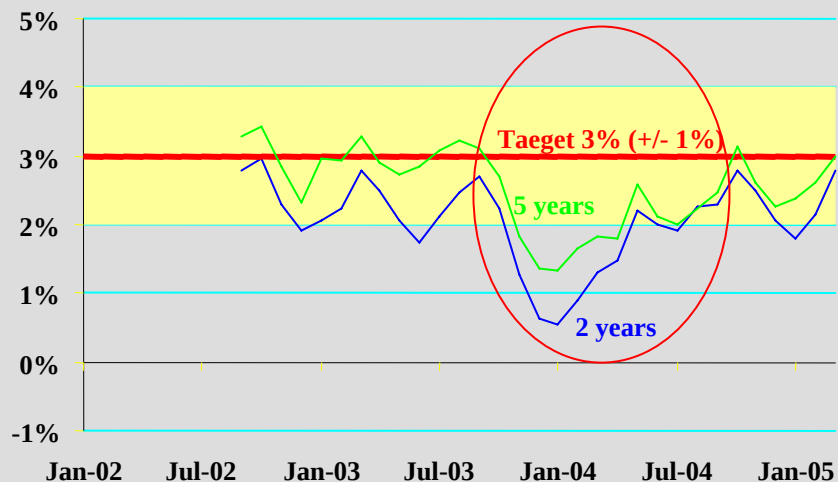
NER (\$/US\$)



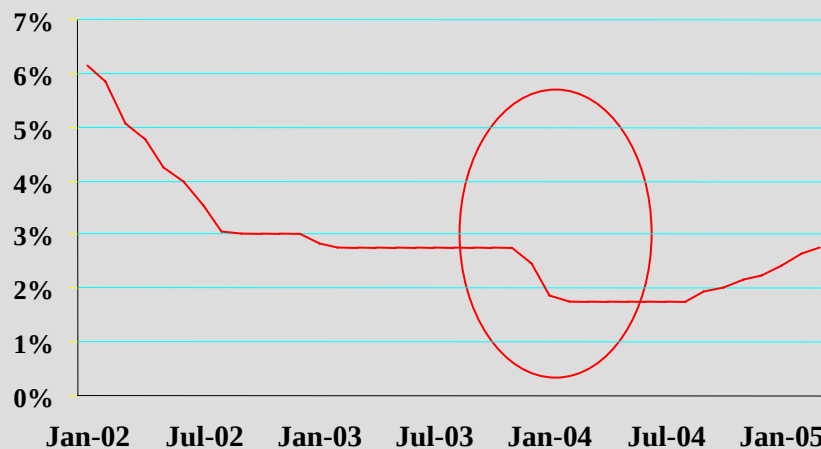
12-m Inflation (%)



Inflation Compensation (%)



MP Rate (%)



Source: Central Bank of Chile.

Final Remarks

ER forecast and transparency.

Degrees of freedom for foreign exchange interventions.

Depth of the ER derivatives market.

A pending policy issue.

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