

BANCO CENTRAL DO BRASIL

Brazil: Taming Inflation Expectations

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Presentation outline

1. Background notes

2. Monetary policy in 2003-06

- 2003: disinflation and recovery
- 2004: inflation rebound and policy response
- 2005-06: consolidating disinflation

3. Inflation expectations

- Lower inflation uncertainty
- Convergence to the targets

4. Concluding notes



1. Background notes

Implementation of inflation targeting (IT) in 1999: hard challenges

Challenges

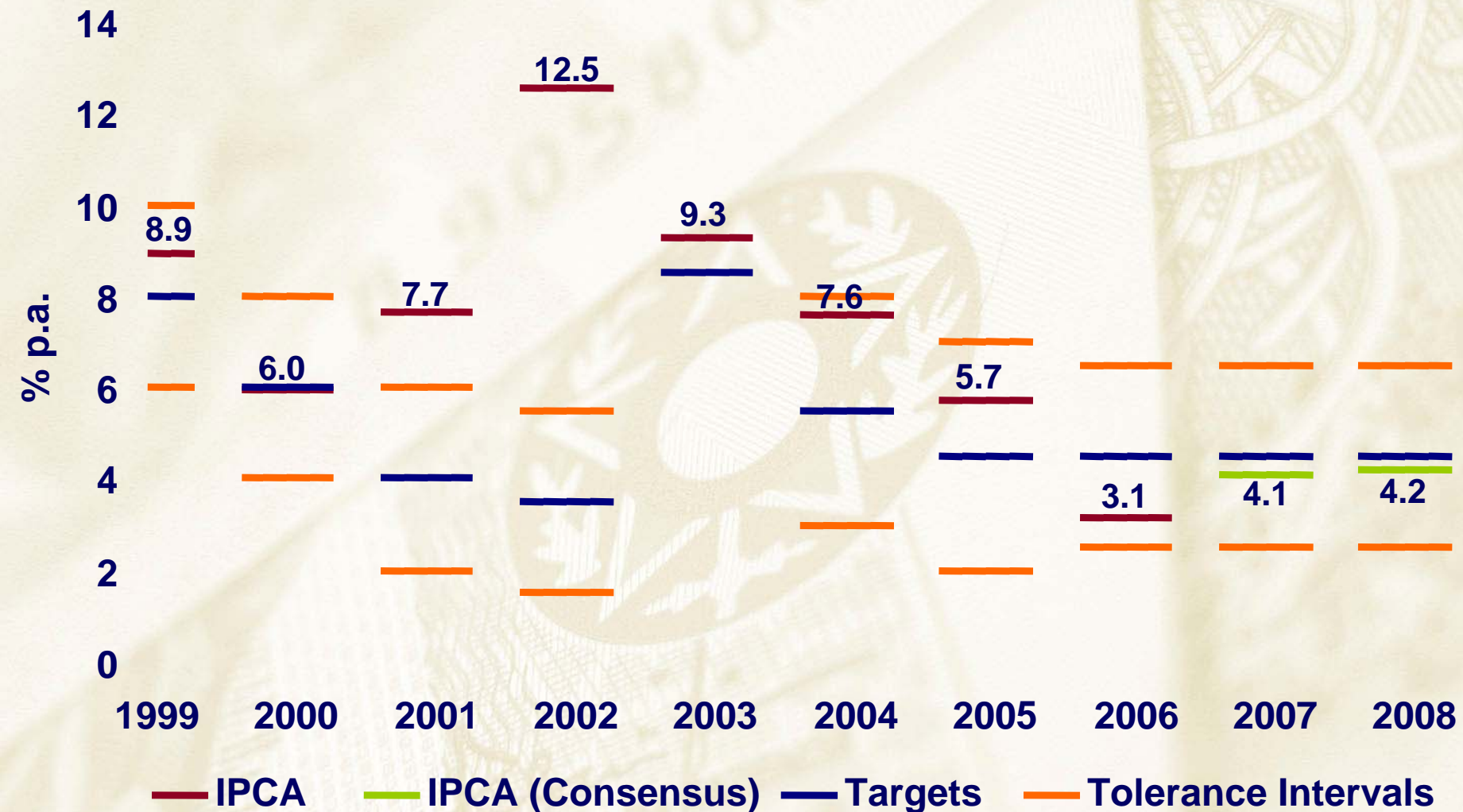
- Moment of great uncertainty, sharp exchange rate depreciation and concerns about fiscal dominance
 - Change in the fiscal regime in 1999
- To bring inflation down
 - 1999Q1: 2.9% (annual 12.0%), 1999: 8.9%, 2000: 6.0%
- To build credibility
 - Long process
- To build a technical supporting structure
 - Put in place fairly quickly

- Annual targets set by the National Monetary Council two years in advance
- Point targets with a $\pm 2\%$ confidence interval
- Headline inflation
- Open-letter to the Min. of Finance if targets are breached
- Minutes of the MPC meetings
- Quarterly Inflation Reports
- De facto autonomy of the Central Bank

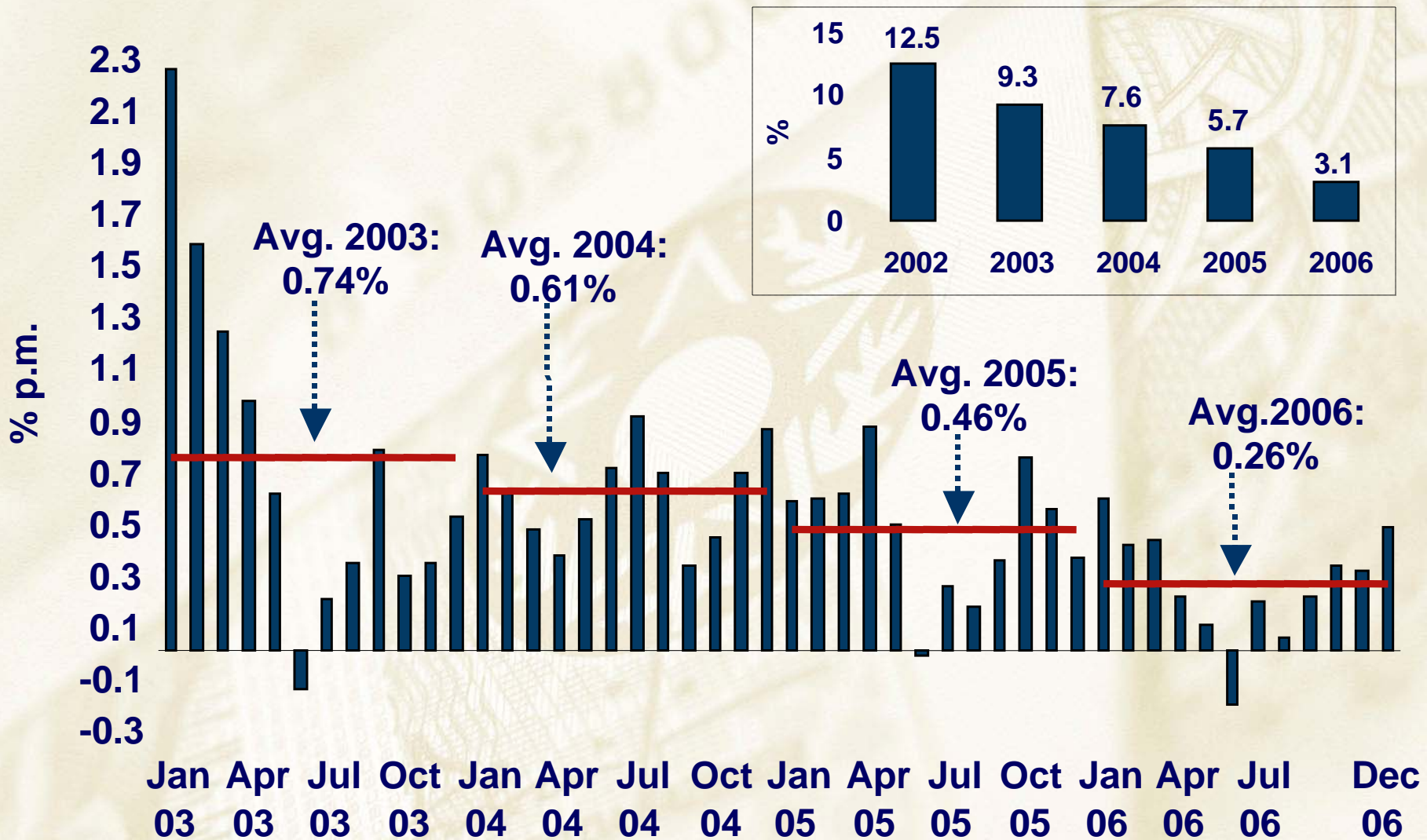
Inflation expectations regular survey

- Conducted by the Central Bank of Brazil
- Around 100 professional forecasters
- Several macroeconomic indicators
- Incentives for accurate reporting of forecasts

Inflation, Targets and Expectations



IPCA Inflation





2. Monetary policy in 2003-06

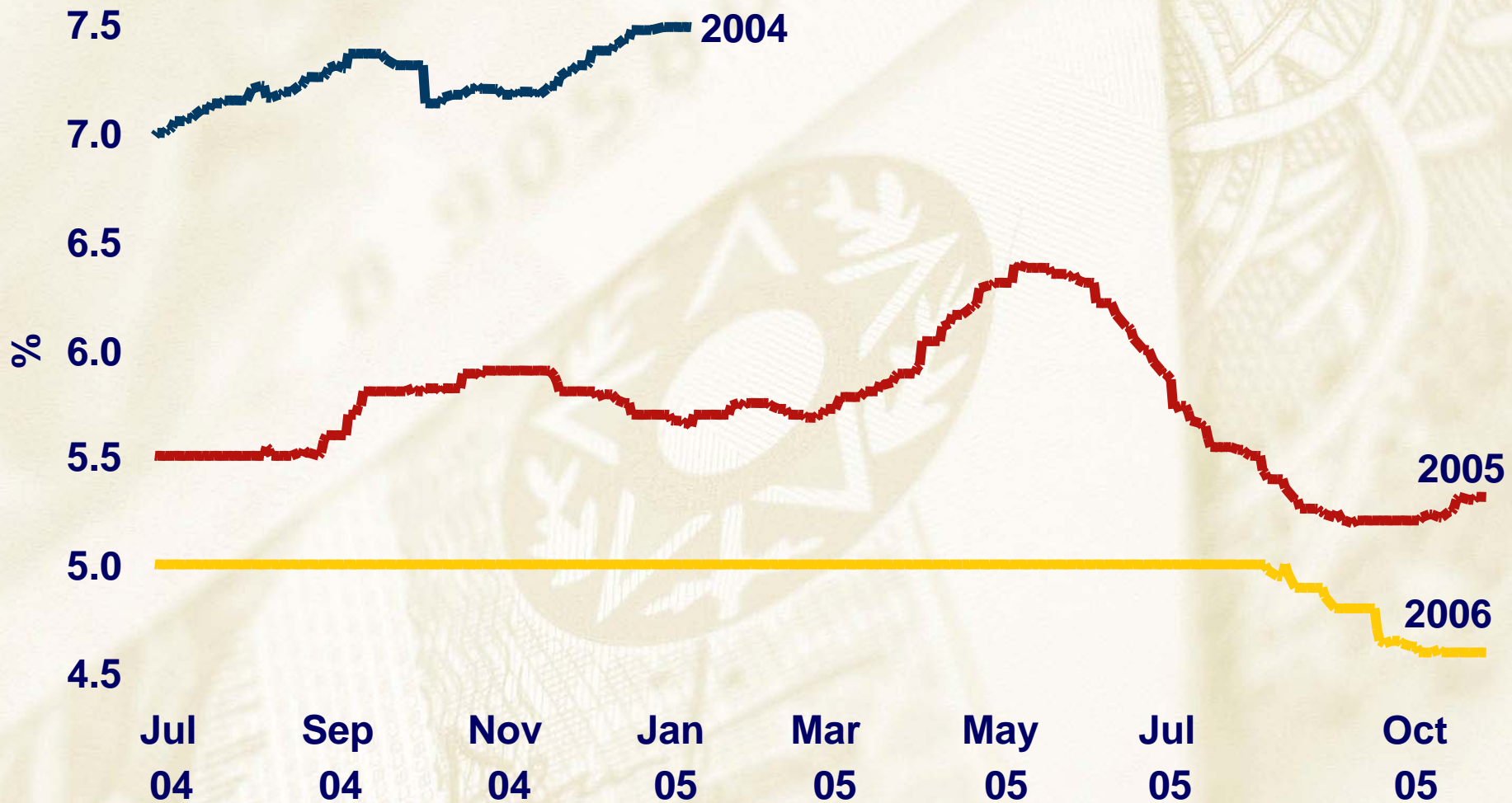
Monetary policy in 2003: disinflation and recovery

- **Context: 2002 confidence crisis**
 - Uncertainty about the maintenance of the regime
 - Huge exchange rate depreciation
- **Challenge**
 - To undertake major disinflation in an environment of limited credibility and facing a surge in inflation expectations
- **Implementation**
 - 2003S1: maintenance of the tightening
 - Inflation expectations: subsiding after April
 - 2003S2: easing

Mon. policy in 2004: reaction to inflation rebound

- **Mid-2004:**
 - Exchange rate depreciation
 - Fast economic growth
 - Rapid credit expansion
 - Deterioration of expectations
- **New tightening cycle**

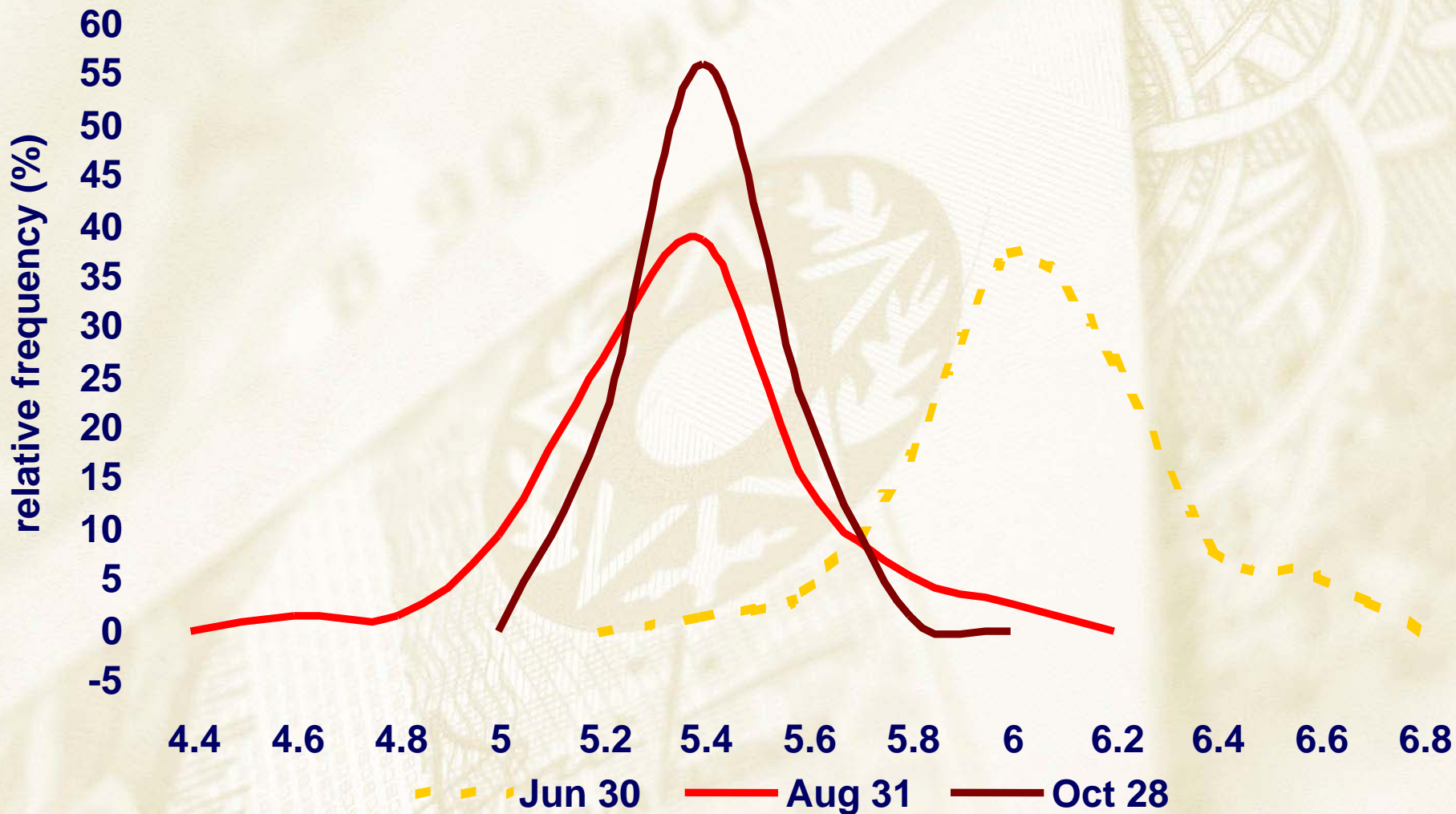
Market Expectations for Inflation 2004-2006



Mon. policy in 2005-06: consolidating disinflation

- **2005S1**
 - Resilient expectations
 - Continuation of monetary policy tightening
- **2005S2**
 - Expectations back to the track
 - Economic cooling off
 - End of tightening cycle
- **2006**
 - Consolidation of disinflation
 - 2002-2006: 2 p.p. annual reduction in inflation
 - Inflation below point target

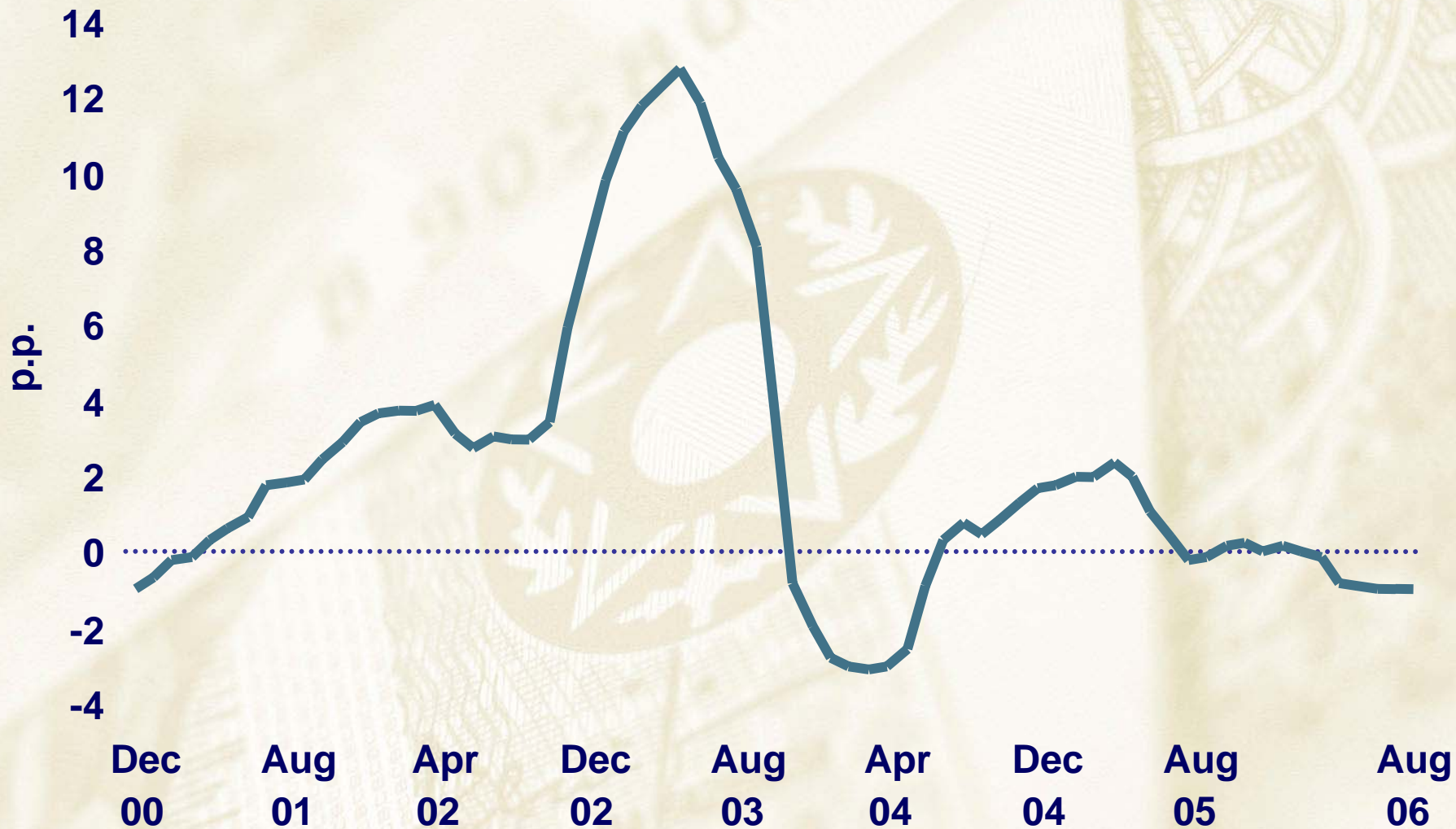
12-Month Ahead Inflation Expectations in 2005



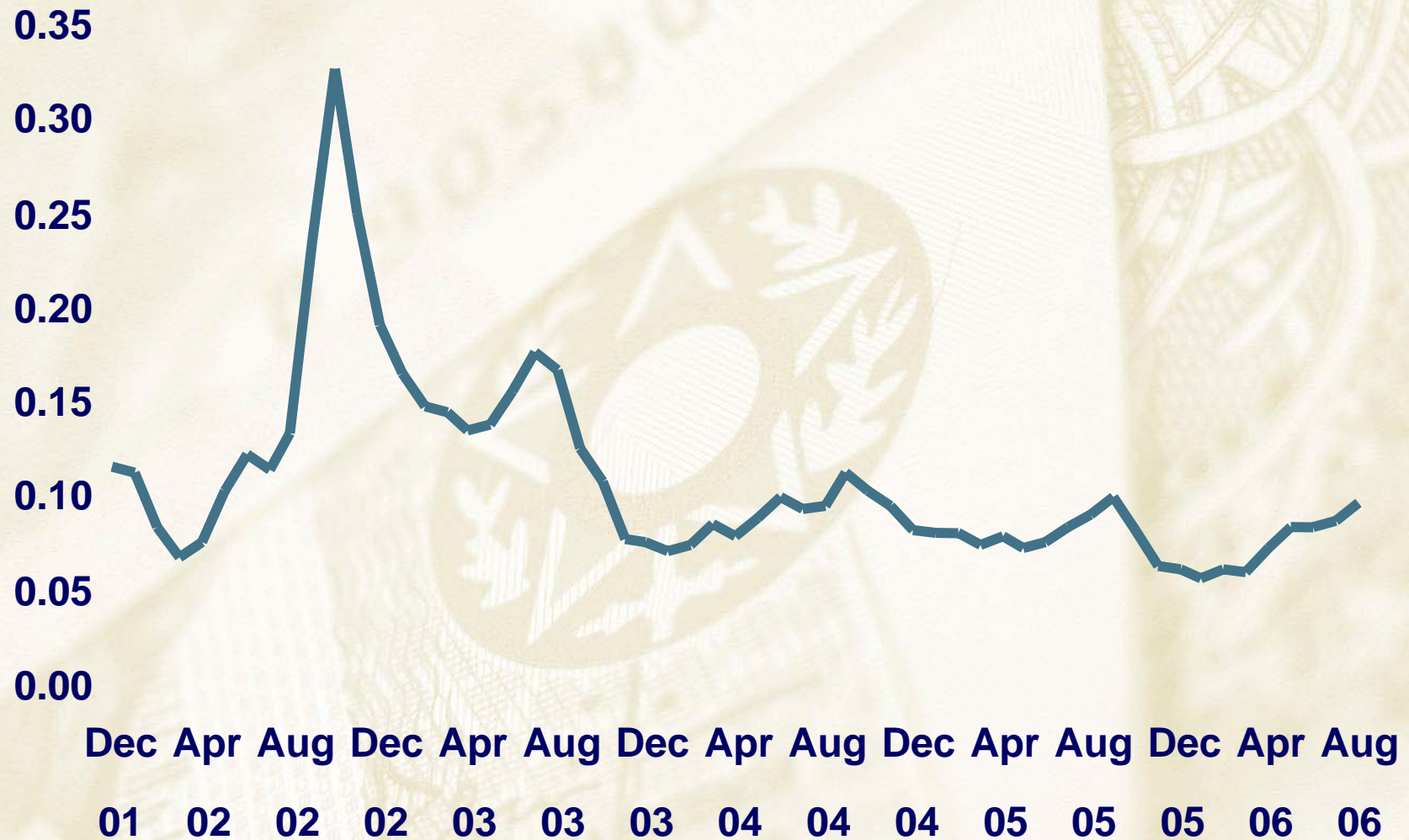
3. Inflation expectations

- Lower inflation uncertainty
- Convergence to the targets

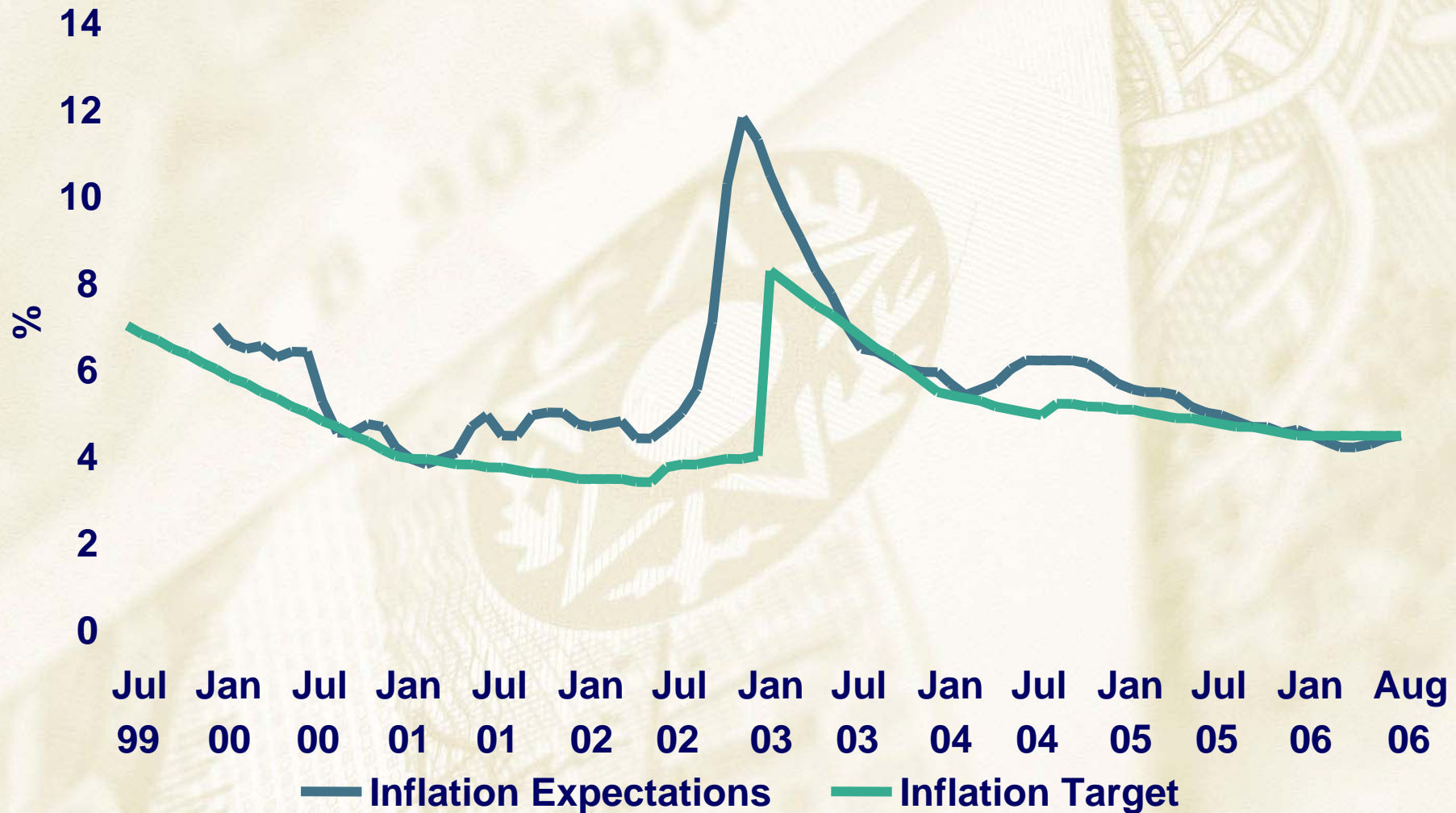
12-Month Forecast Errors – Actual Minus Forecasted Inflation



Dispersion of Inflation Expectations – Coefficient of Variation (2001:12-2006:8)



12-Month Ahead Inflation Expectations and Targets



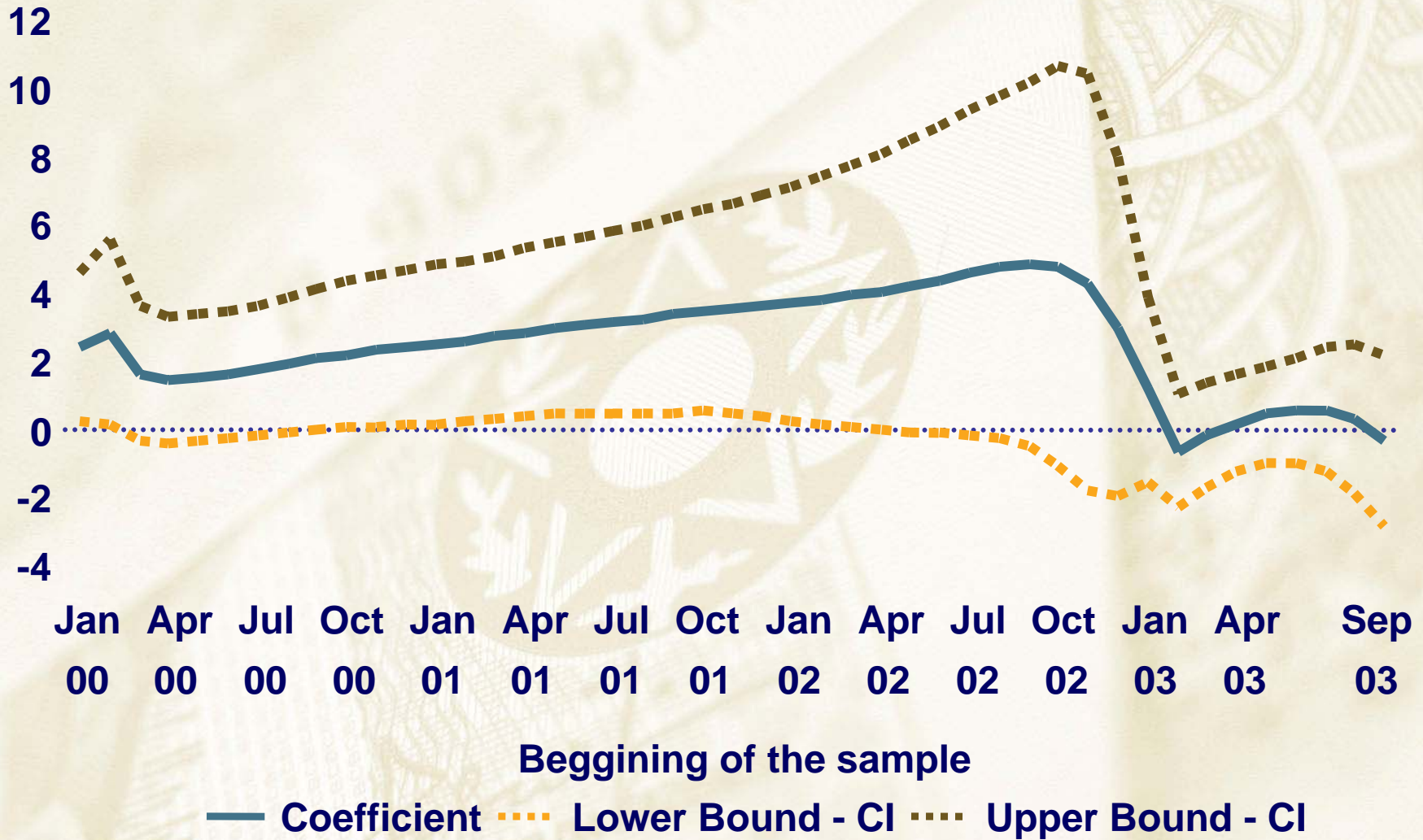
Estimation of Inflation Expectations – Several Specifications

Dependent Variable: 12-Month Ahead Inflation Expectations (Jan 00 –Aug 06)

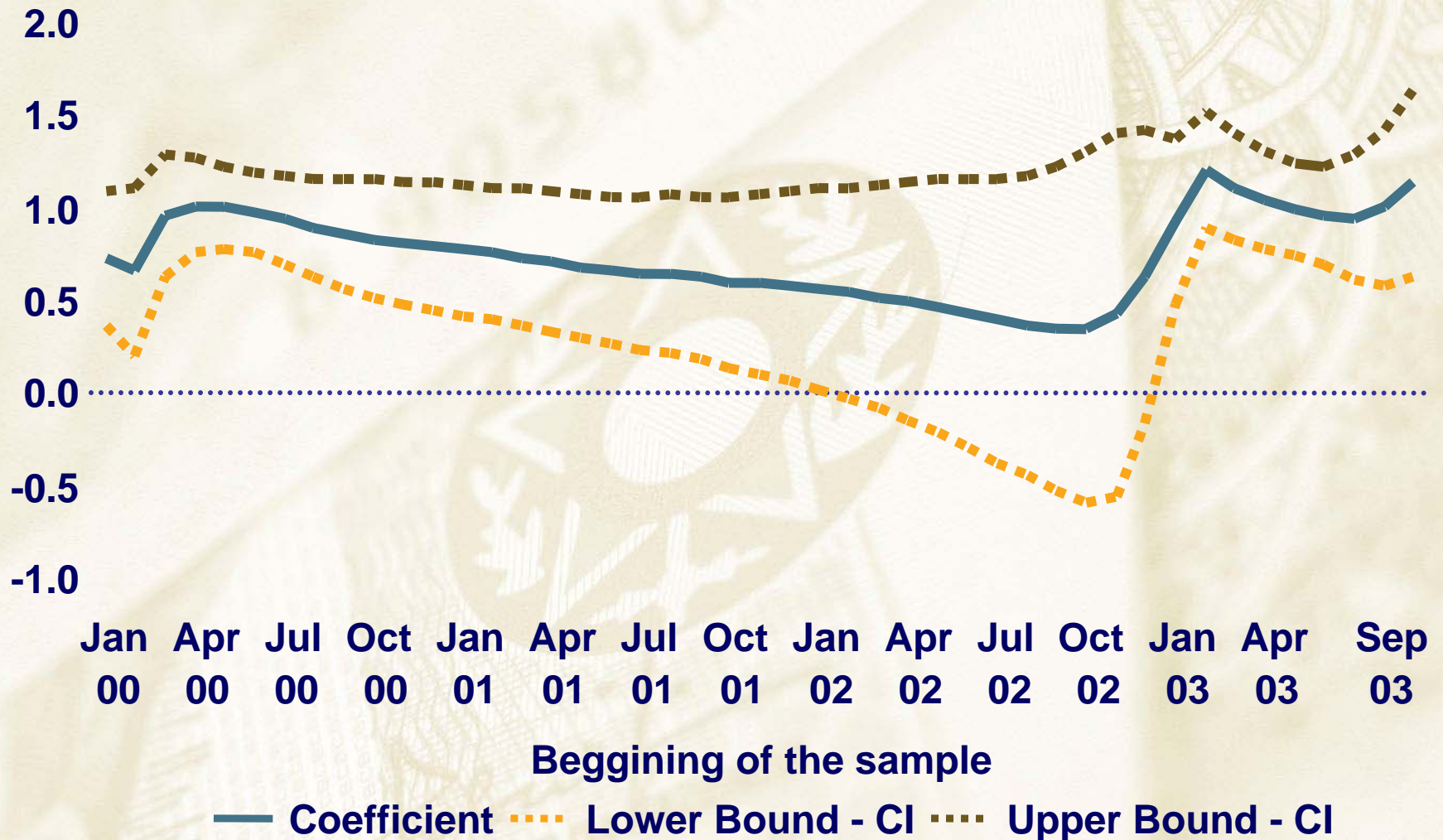
Regressors	Specifications		
	I	II	III
Constant	1.81* (1.03)	0.25 (0.58)	0.97 (1.00)
Inflation Target (12-month ahead)	0.80*** (0.18)	0.77*** (0.23)	0.60** (0.29)
Output Gap (-2)		0.09 (0.11)	0.14* (0.08)
12-Month Inflation (-1)		0.20* (0.11)	0.09 (0.10)
Six-Month Nominal Exchange Rate Change (-1)		0.06*** (0.01)	
Embi+ Brazil (-1)			0.15*** (0.05)
Real Effective Exchange Rate Gap (-1)			0.08*** (0.03)
R-squared	0.2939	0.6904	0.7995
Adjusted R-squared	0.2849	0.6739	0.7859

Notes: Standard errors—shown in parentheses—were corrected by Newey-West heteroskedasticity and autocorrelation consistent covariance matrix estimator since estimation residuals present autocorrelation and heteroskedasticity. *, **, *** indicate the coefficient is significant at the 10%, 5%, and 1% levels, respectively.

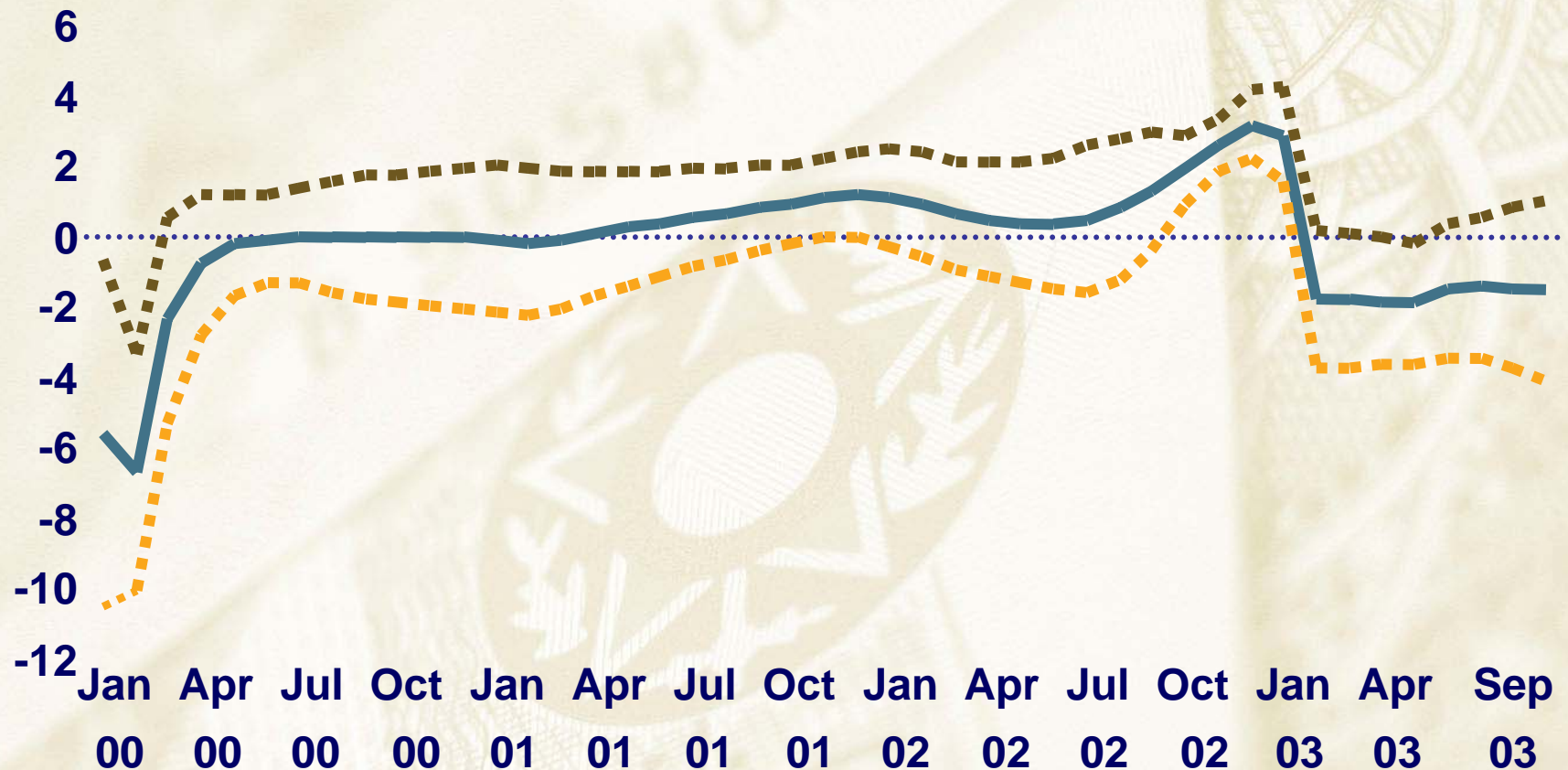
36-Month Rolling Window Regression – Constant Term



36-Month Rolling Window Regression – Coefficient on the Inflation Target



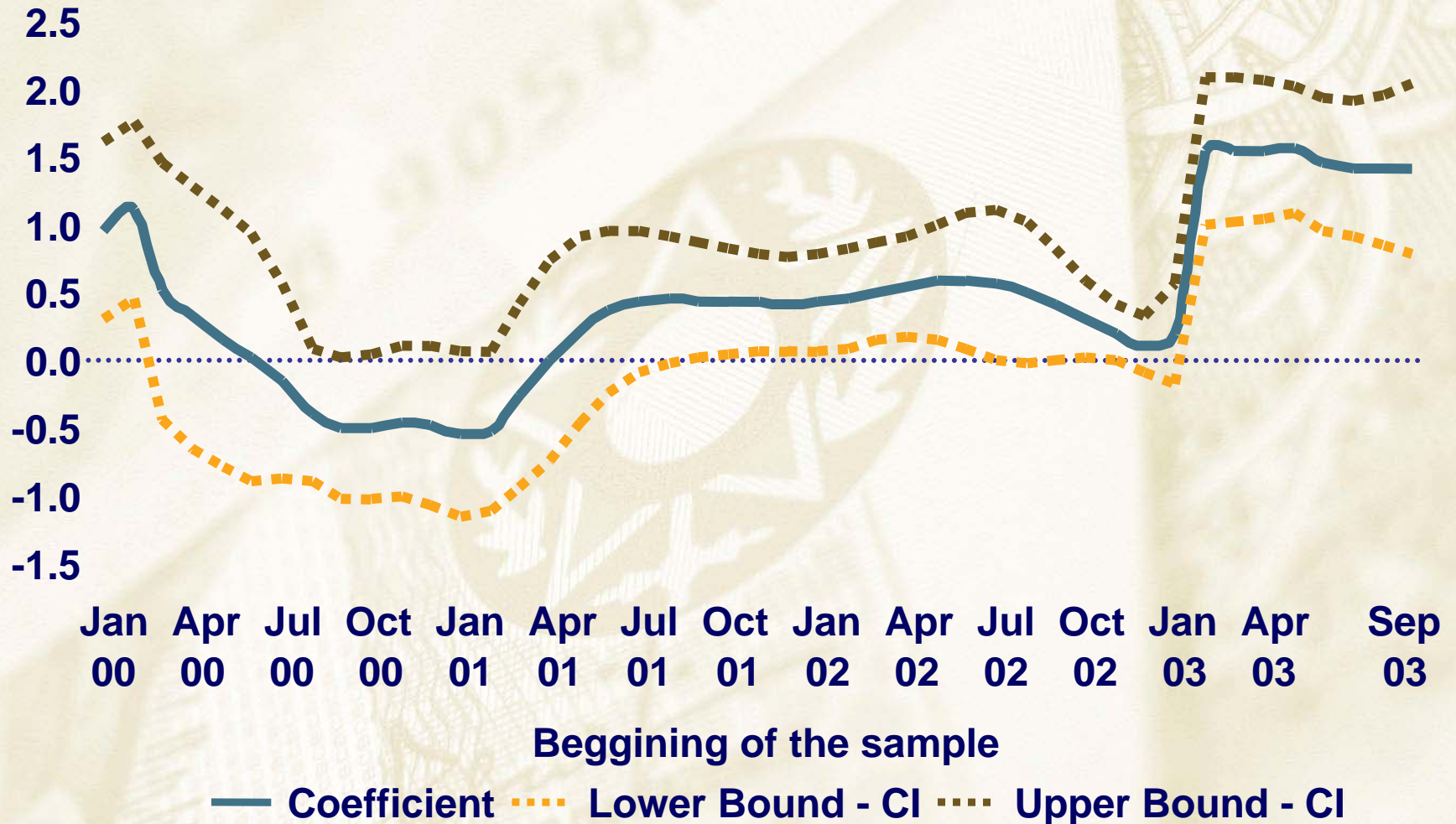
36-Month Rolling Window Regression – Constant Term



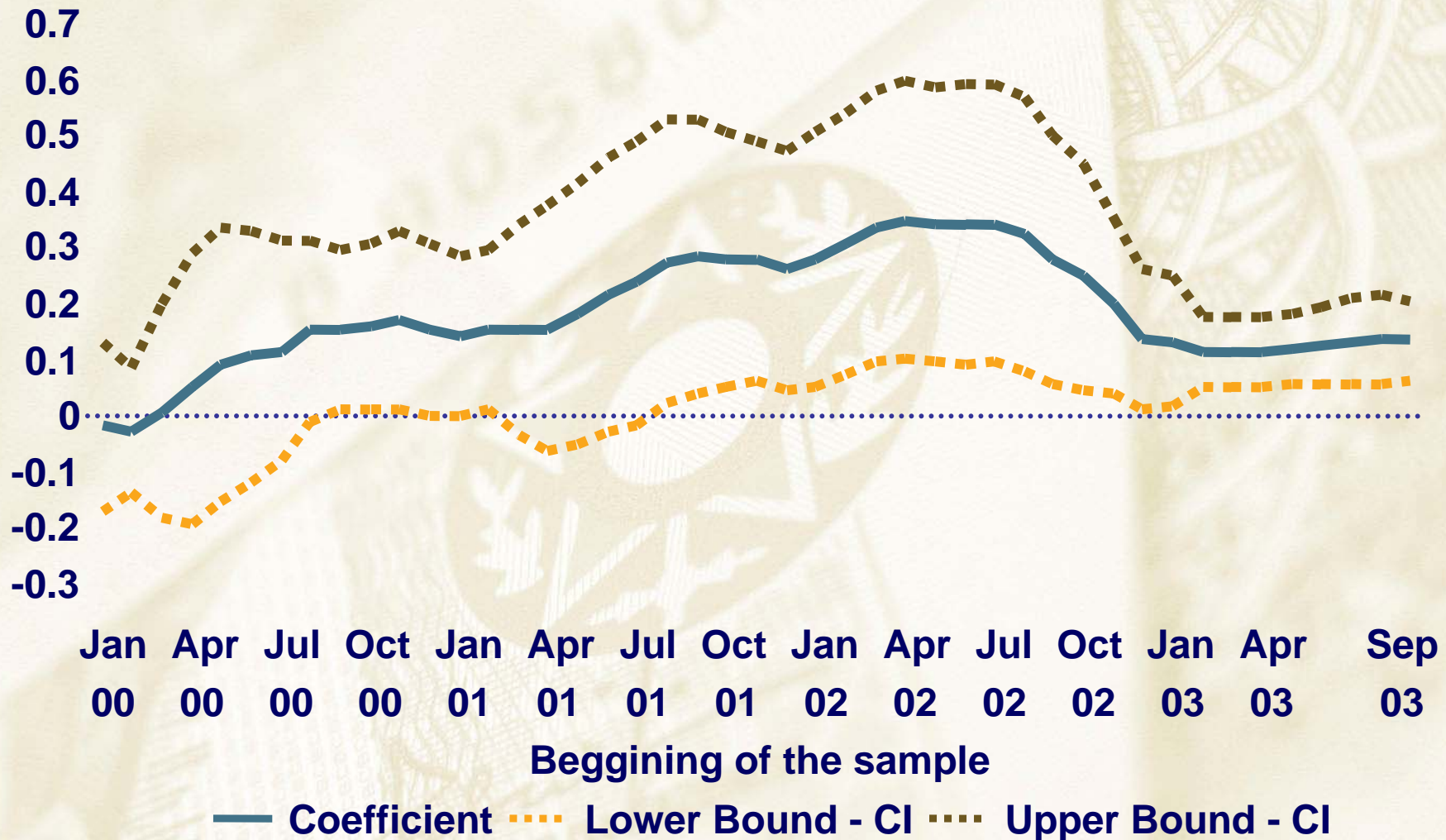
Beggining of the sample

— Coefficient - - - Lower Bound - CI - - - Upper Bound - CI

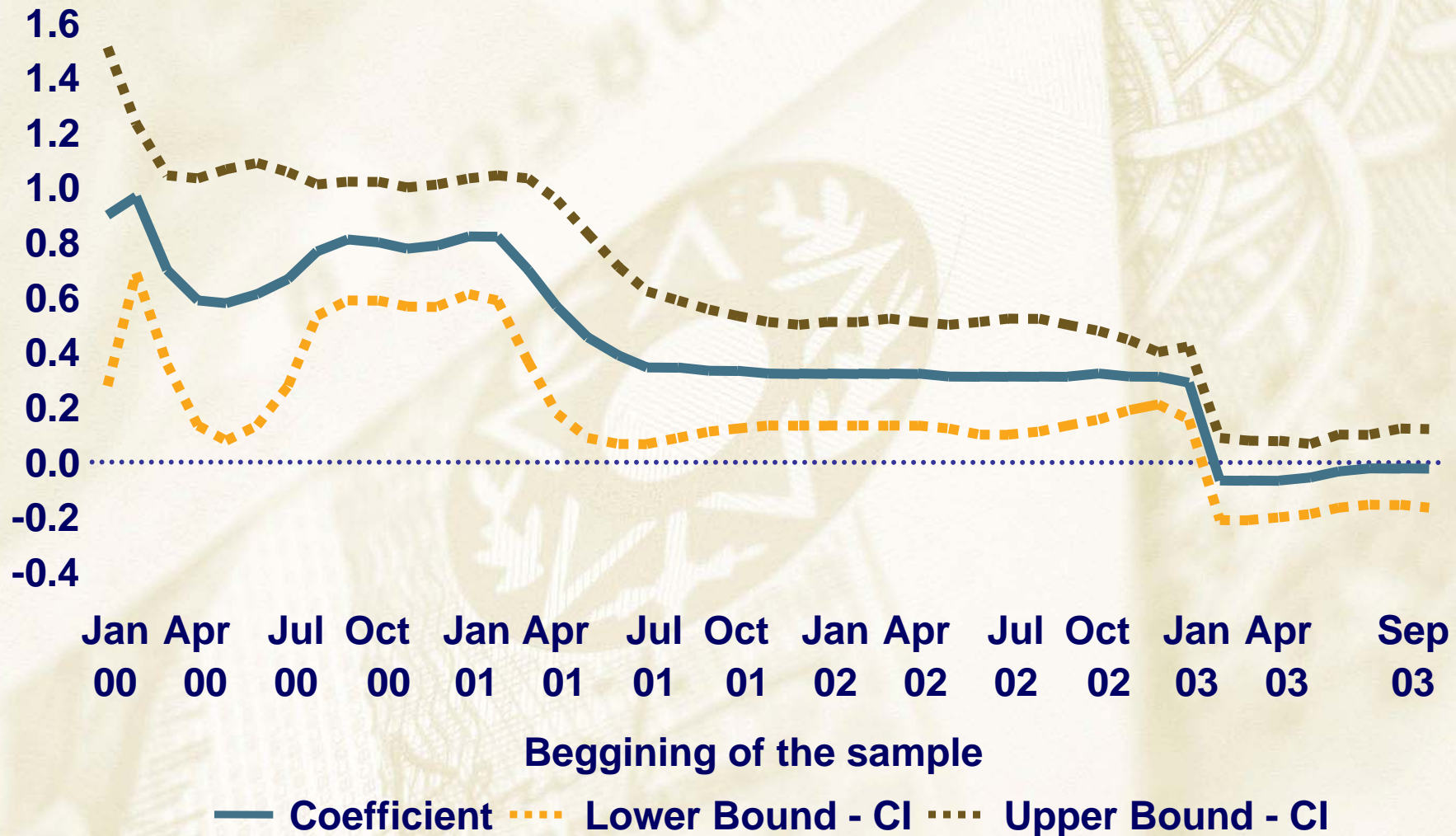
36-Month Rolling Window Regression – Coefficient on the Inflation Target



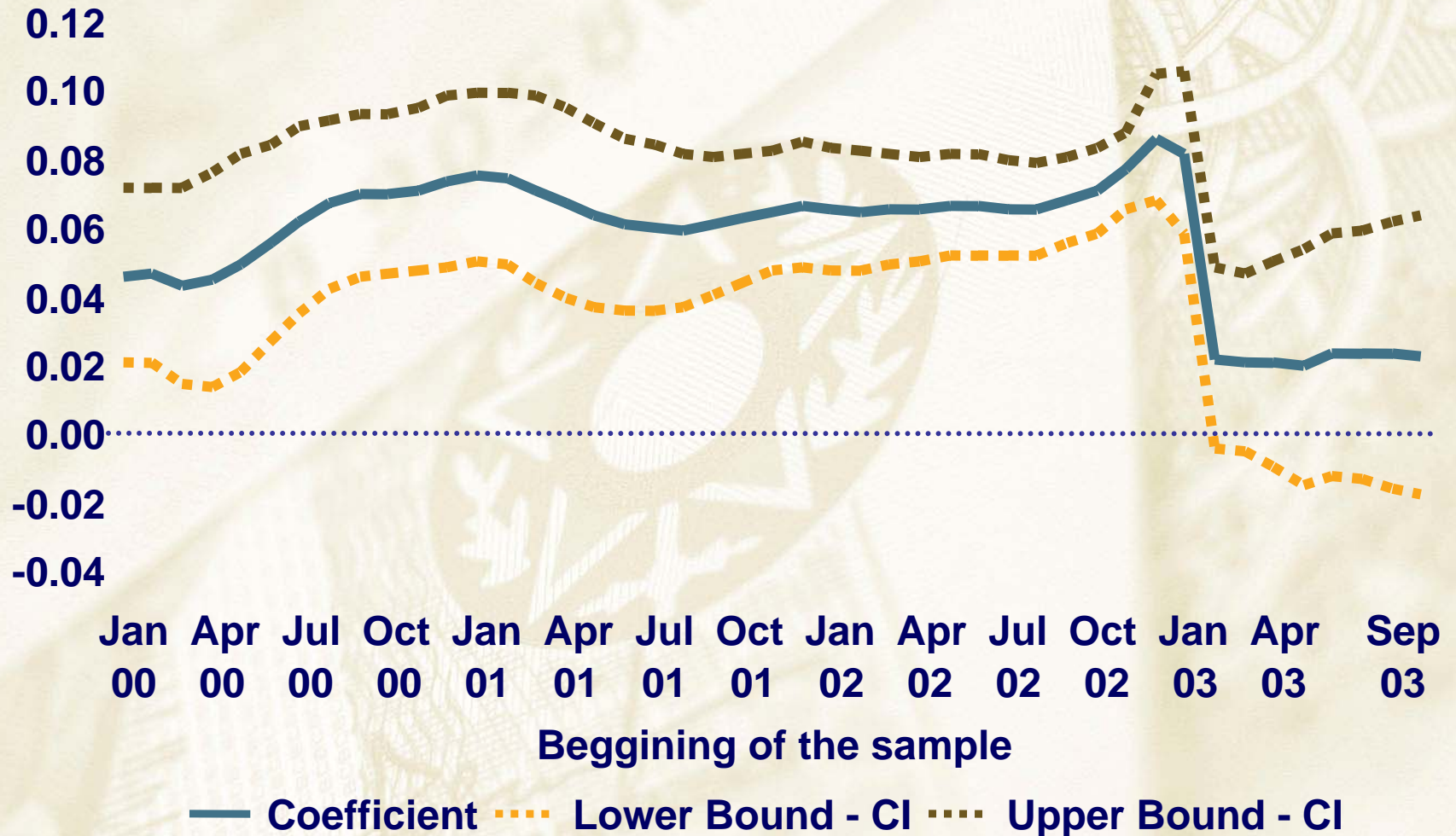
36-Month Rolling Window Regression – Coefficient on Output Gap



36-Month Rolling Window Regression – Coefficient on Past Inflation



36-Month Rolling Window Regression – Coefficient on Exchange Rate Change





4. Concluding notes

Concluding notes

- **Monetary policy and the improvement in macroeconomic fundamentals have contributed substantially to create a more stable and predictable environment**
 - Disinflation consolidation
 - Inflation at low levels
 - Lower inflation uncertainty
 - Anchored inflation expectations