



Monetary policies in a time of global uncertainty: lessons and opportunities

Mario Marcel

Member of the Board of the Central Bank of Chile



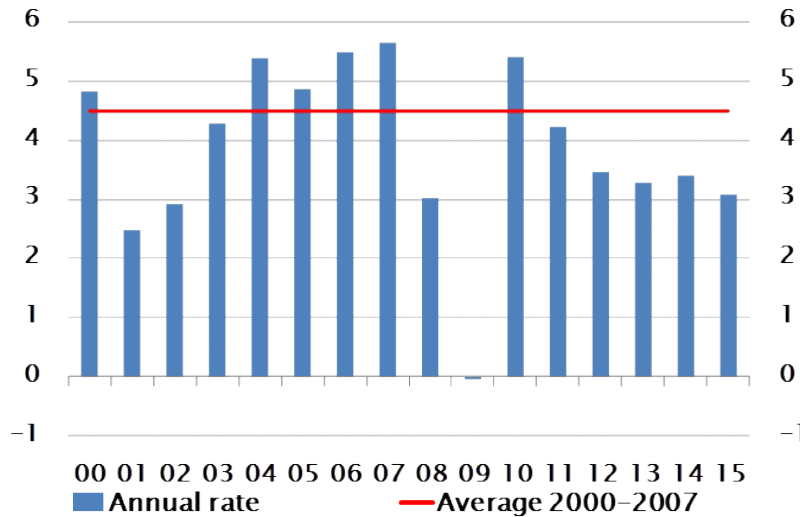
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Extraordinary economic times

- Three crisis in a row:
 - 2008-2009: financial crisis US
 - 2010-2014: Eurozone economic crisis
 - 2013-2016: Emerging countries commodity crisis
- Slow growth and high unemployment at global level
- Deep financial wounds, high public debt, uncertainty and risk aversion
- Substantial deviation of inflation from policy targets
- Monetary policy as preferred response, including policy framework change
- Policy innovation: quantitative easing, negative policy rates, prudential regulation
- Accommodative monetary policy raising risks of its own --yield search, bubbles
- Intense economic discussion: new keynesian economics; financial crises; cyclical sensitivity of multipliers; secular stagnation
- End of long commodities cycle expose vulnerability of BRICS, EMEs
- Political effects: government fragility, protectionist appeal, mistrust in governments and institutions
- End not yet within sight (Brexit)

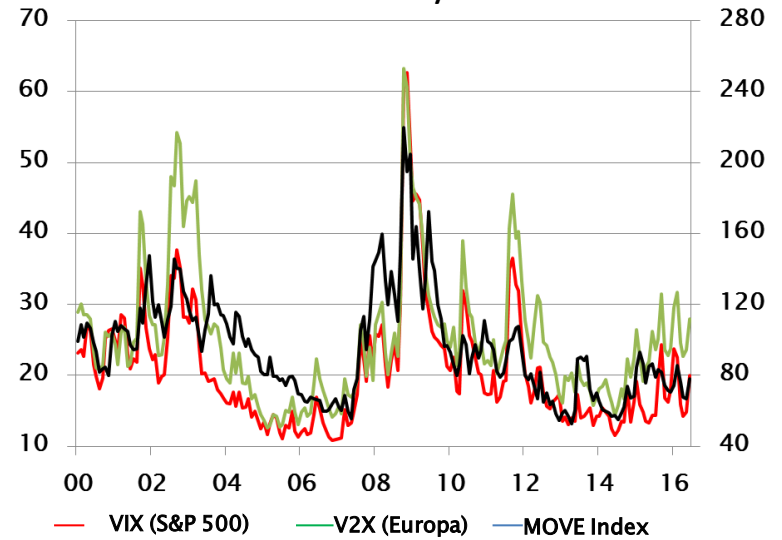
Stylized facts

World growth



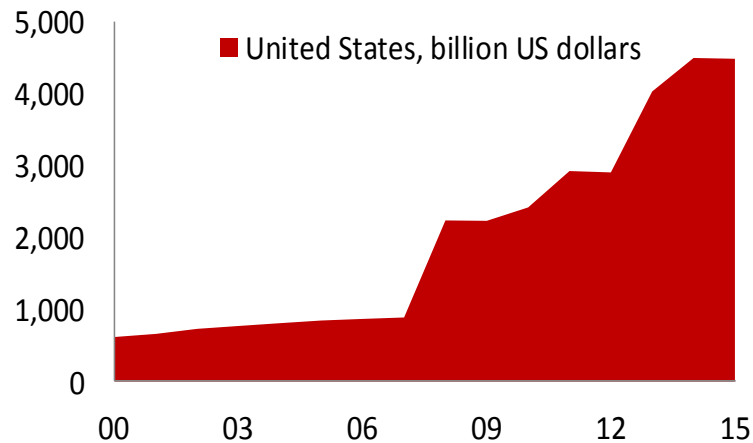
Source: WEO Abril 2016.

Economic volatility



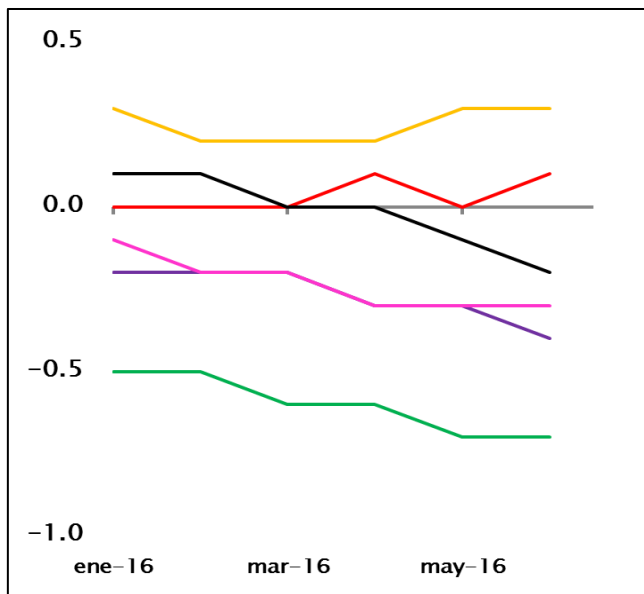
Source: Bloomberg.

Federal Reserve Assets

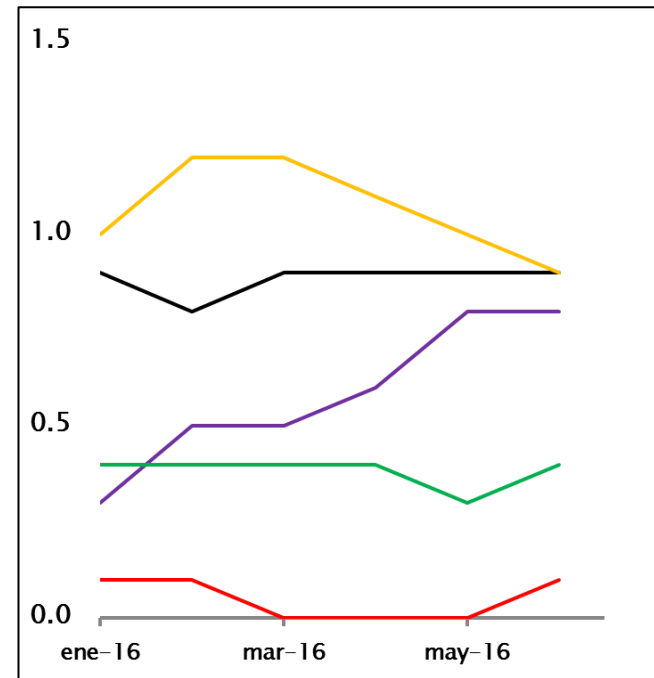


Inflation target credibility

Differences of inflation expectations with policy target by 2017 - AE



-- USA
 -- Canada
 -- UK
 -- Eurozone
 -- Australia
 -- New Zealand

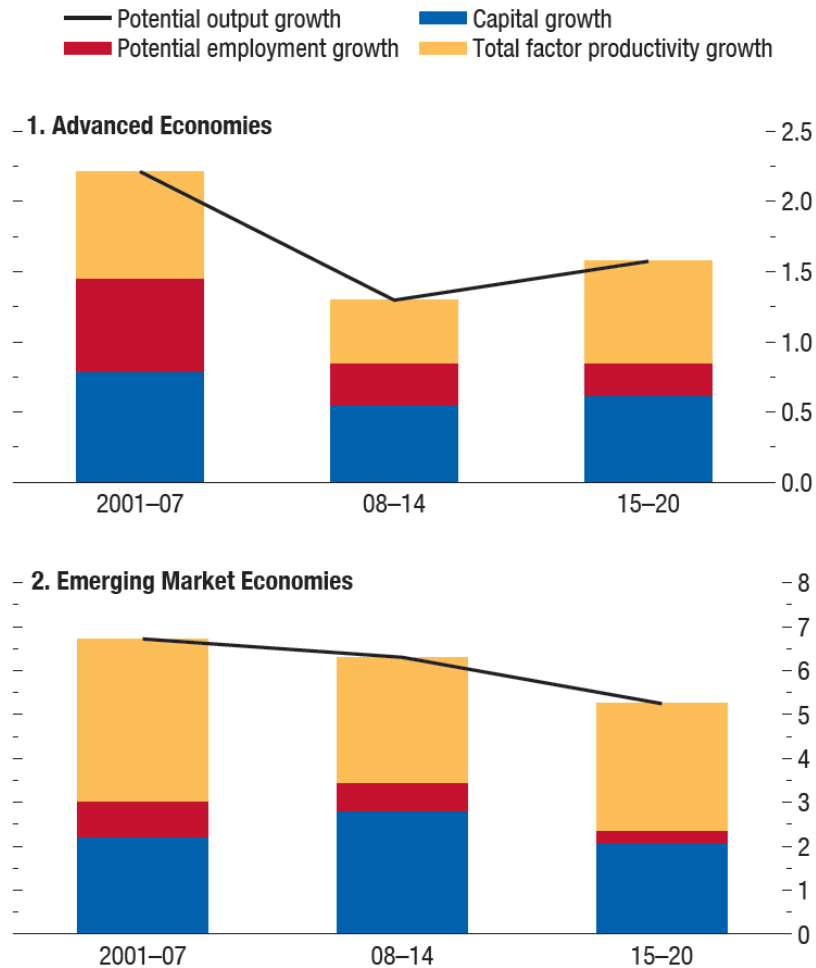


-- Brazil
 -- Chile
 -- Colombia
 -- Mexico
 -- Peru

Differences of inflation expectations with policy target by 2017 - LAC

(*) Private expectations are for december of each year. Difference between total CPI inflation expectations and the mid point of the target range.
 |Source: Consensus Forecasts.

Declining growth potential



Source: IMF staff estimates.

Note: Economy groups are defined in Annex 3.1.

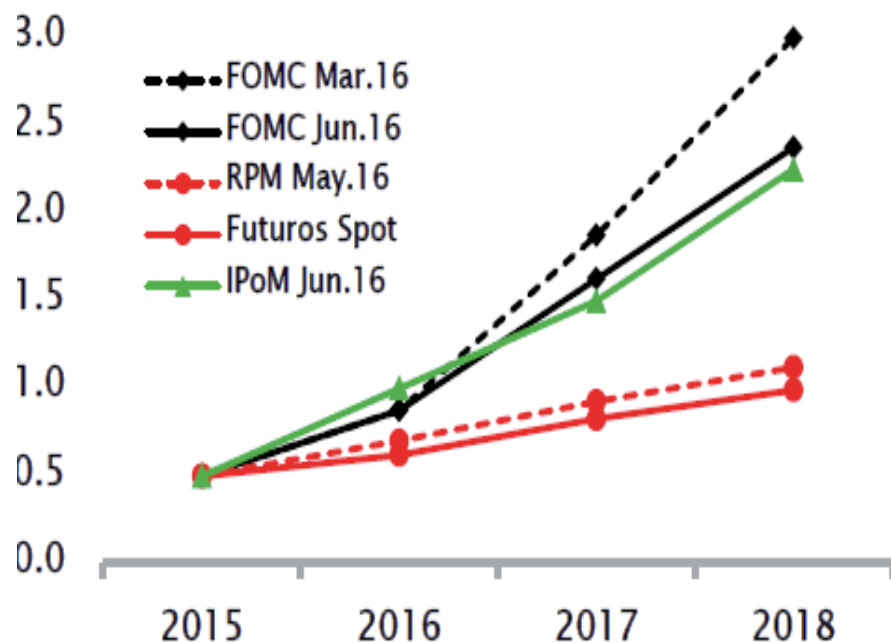
Major uncertainties remain

- Fed Fund Rate normalisation
- Effects of monetary policy negative rates
- Will China rebalance? If not, what?
- Brexit: when? how? With whom?

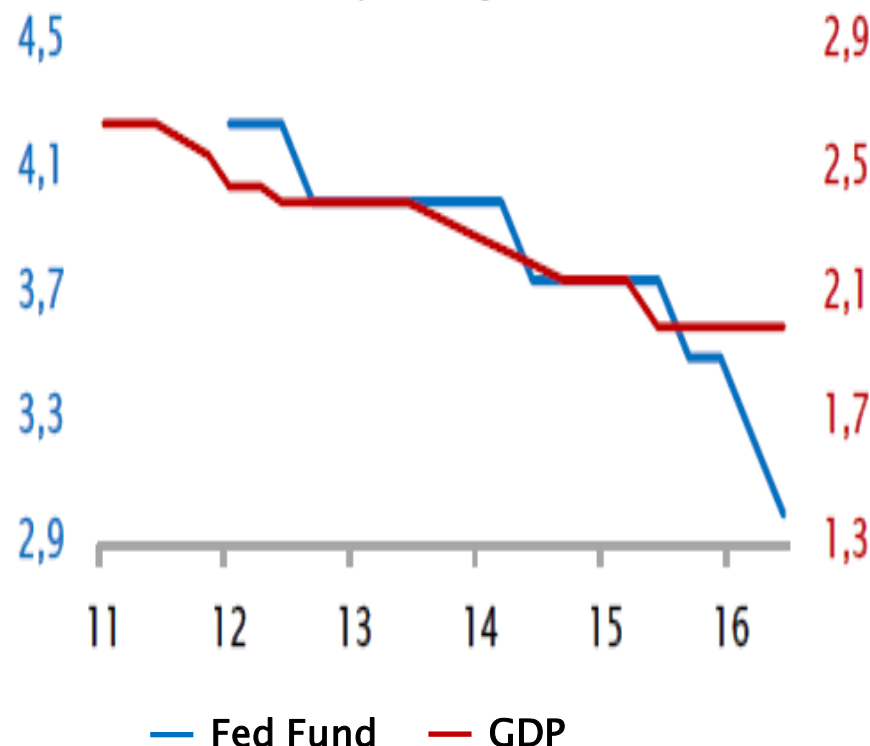


Monetary policy normalization in US is a relevant source of financial volatility (pre-Brexit)

FF: Future Path
(percent)



FOMC: FF and GDP (*)
(percent)

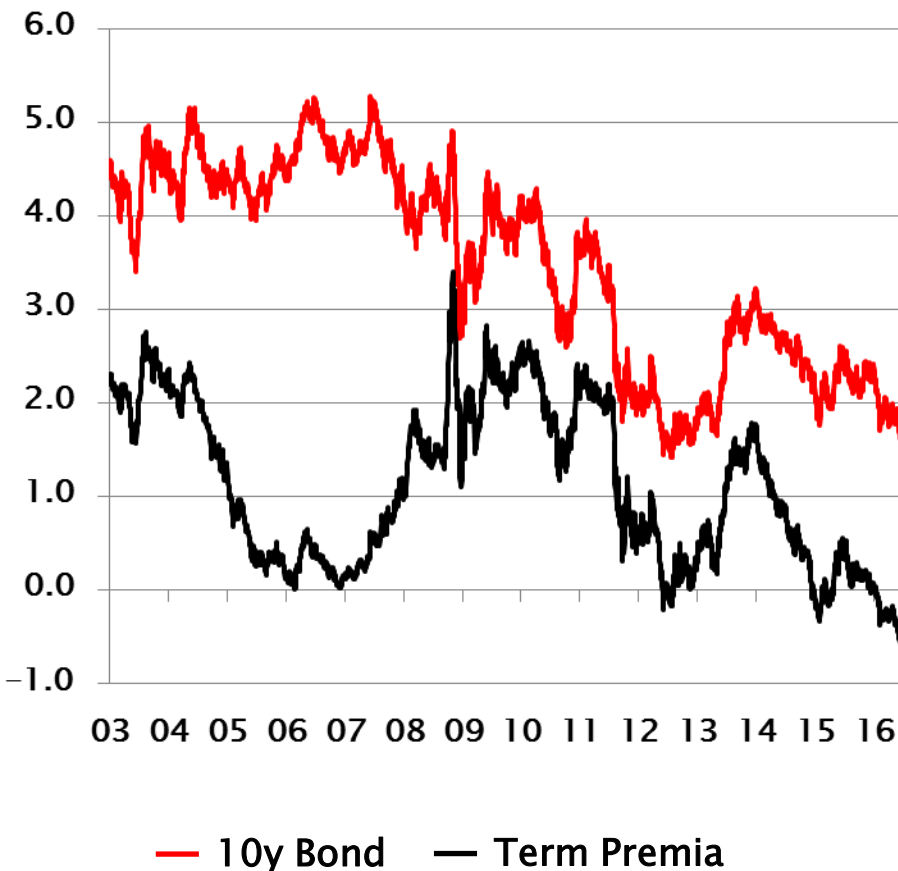


(*) Based on FOMC June, 2016



MP normalization and term premia decompression remains a source of contagion to other economies

US 10Y Bond and Term Premia (*)
(percent)



Pass-through of US 1y-Bond(*)
(basis points)

Panel A: Developed economies				
	Pre-November 2008		Post-November 2008	
	One-year rate	Ten-year rate	One-year rate	Ten-year rate
Rate	0.14*	0.09	0.43**	0.73*
Expected MP	-0.07	-0.10	-0.15	-0.35
Term spread	0.13*	0.15	0.39**	0.48**
	-0.06	-0.11	-0.13	-0.17
Term spread	0.01	-0.07***	0.05	0.26
	-0.02	-0.02	-0.08	-0.21
Panel B: Emerging economies				
	Pre-November 2008		Post-November 2008	
	One-year rate	Ten-year rate	One-year rate	Ten-year rate
Rate	0.19	0.28	0.43	0.85**
Expected MP	-0.13	-0.19	-0.24	-0.32
Term spread	0.06	0.06	0.08	0.12
	-0.05	-0.05	-0.21	-0.20
Term spread	0.12	0.22	0.34***	0.74**
	-0.08	-0.19	-0.07	-0.27

(*) The symbols *, ** and *** indicate that the result is statistically significant at 1%, 5% and 10%.

Source: Albagli et al. (2015).

(*) The vertical line marks the Tapering Announcement made by the FED on May, 2013



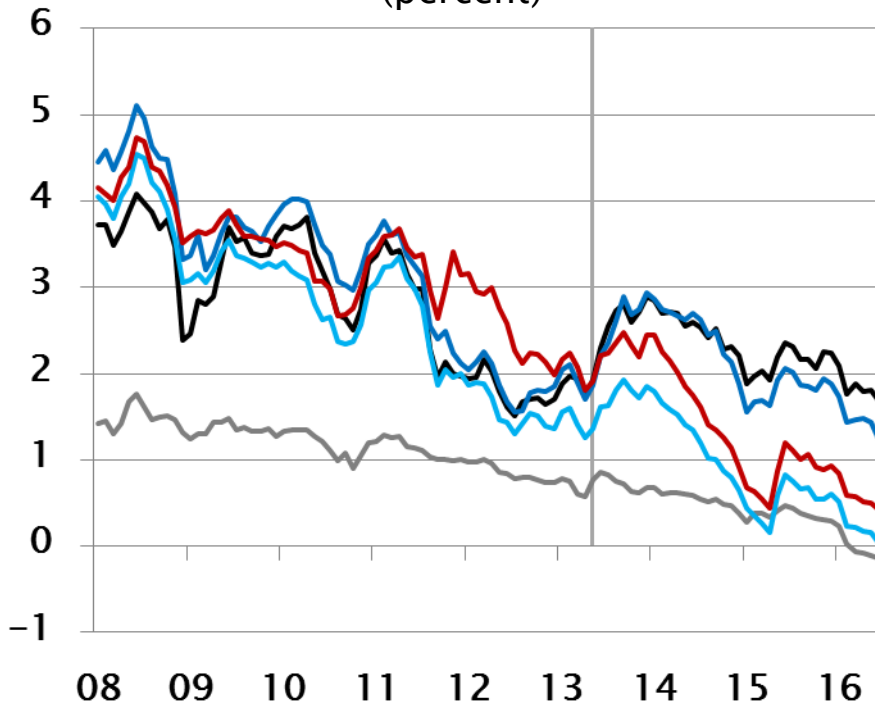
Impact on emerging countries

- EMEs survived the financial and Euro crisis on the shoulders of a prolonged commodity boom rather than sound policies; the EME crisis starting in 2013 revealed weak foundations
- EMEs highly exposed to current sources of uncertainty:
 - Capital movements, exchange rates and long term rates decompression
 - Commodity price volatility, investment in natural resource industries
- Yet current EME challenges include idiosyncratic elements:
 - China readjusting with major policy dilemmas and high internal debt
 - Recessions in Russia, Brazil, South Africa
 - Oil producers in trouble (Nigeria, Venezuela)
 - LAC: slow growth and high inflation



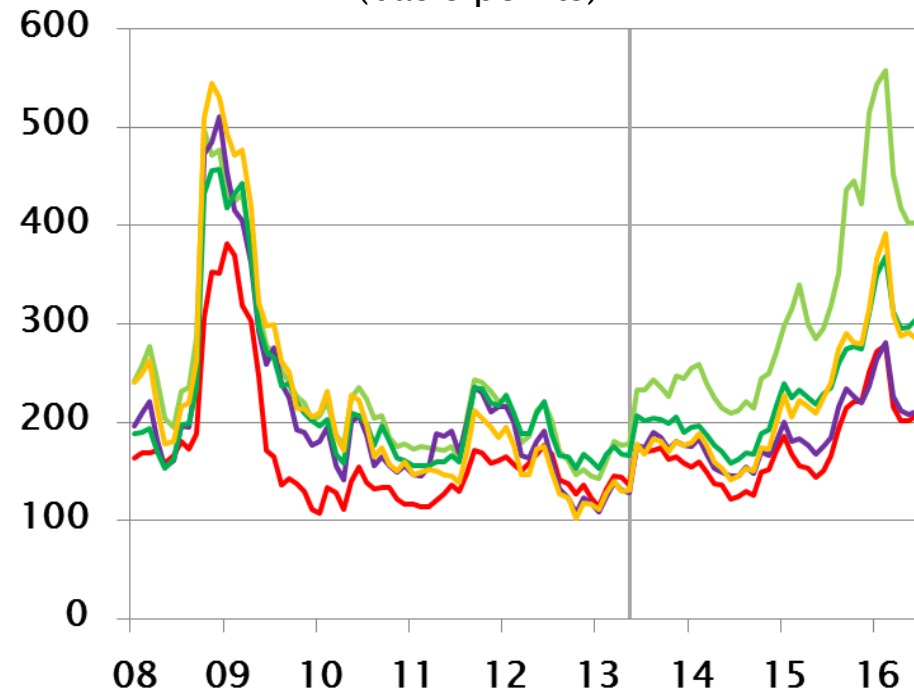
With historical low interest rates in advanced economies, risks premiums for emerging economies have been volatile

Developed economies: 10y Bond (*)
(percent)



— US
— UK
— Germany
— France
— Japan

EMBI Latam (*)
(basis points)



— Brazil
— Mexico
— Chile
— Peru
— Colombia

(*) The vertical line marks the Tapering Announcement made by the FED on May, 2013



Chile's macro policy framework and exposure to volatility

- Structural features
 - Market, open economy
 - Natural resource-based exports, especially copper
 - Open capital account
 - Constitutionally independent Central Bank
- Macro policy framework
 - Inflation targetting
 - Floating exchange rate
 - Fiscal policy rule based on structural balance
 - Sound financial system, including institutional investors

Current MP target: 3% inflation in 24-month scenario, \pm 1%



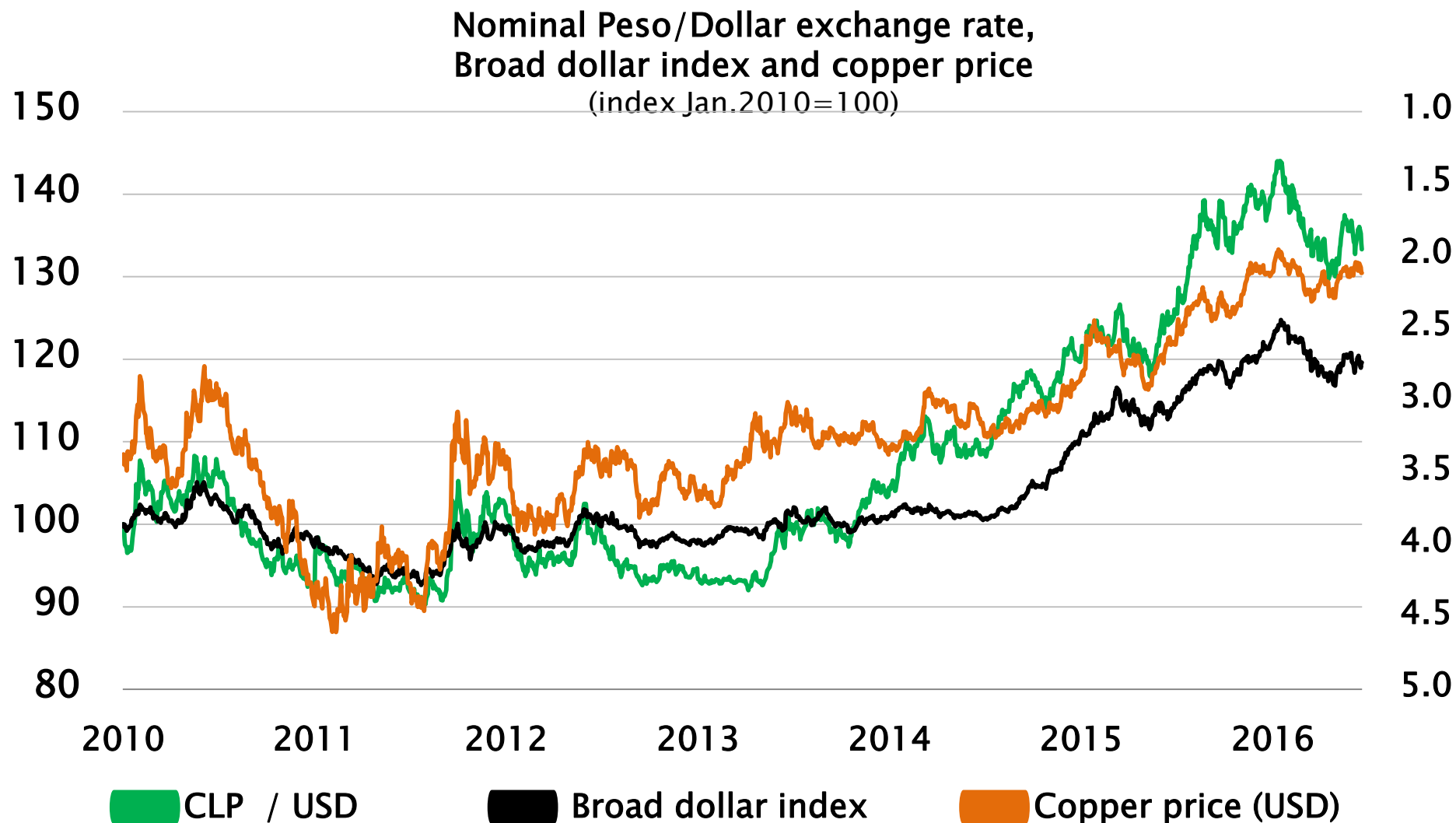
Macroeconomic performance

- 2000–2012
 - Inflation: 3.3%
 - GDP growth: 4.5%
 - Multilateral ER= 94.5 ; two ER short CB interventions
 - Market interest rate(*): 8.4%
- 2013–2016
 - Inflation: 3.6%
 - GDP growth: 2.6%
 - Multilateral ER: 95.3, no CB interventions necessary
 - Market interest rate(*): 7.1%

(*) Interest rates in the financial system operations 30 to 89 days / Nominal / Lending

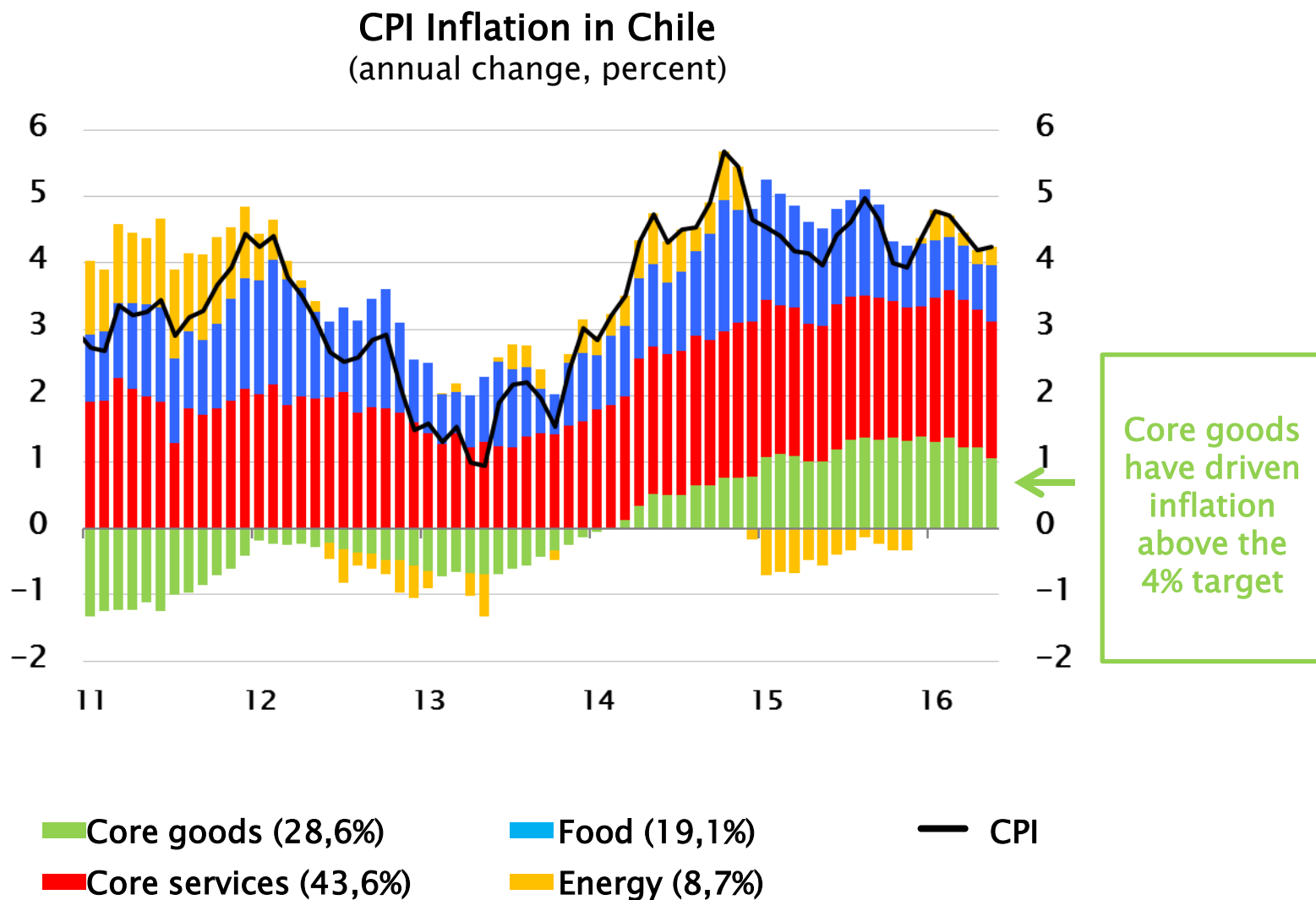


Exchange rate and copper price are highly correlated, with rather strong impact of global dollar fluctuations





Tradable items have pushed inflation above the target. Services have kept a stable rate of growth





Inflation fundamentals

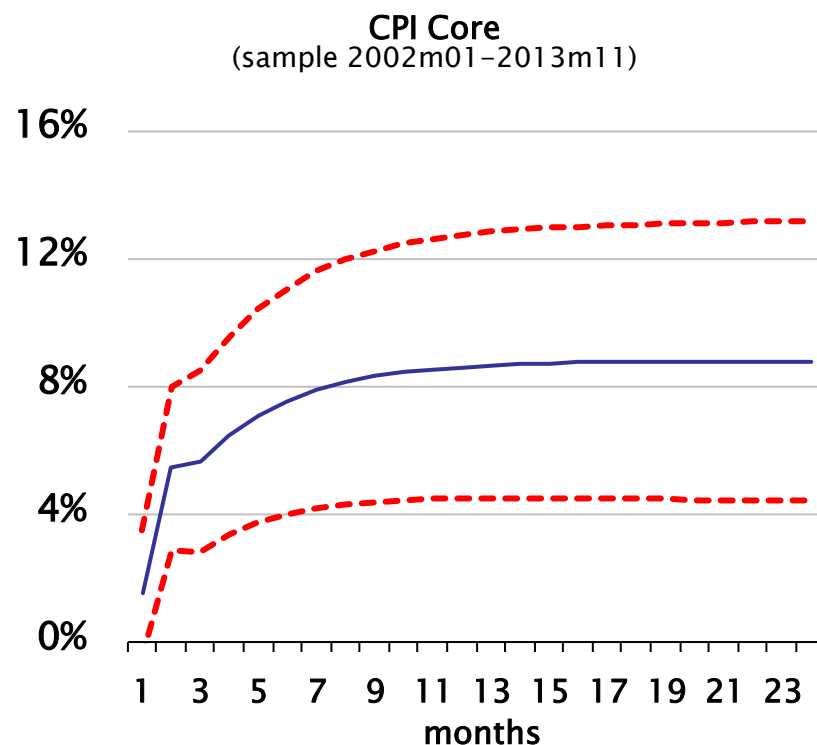
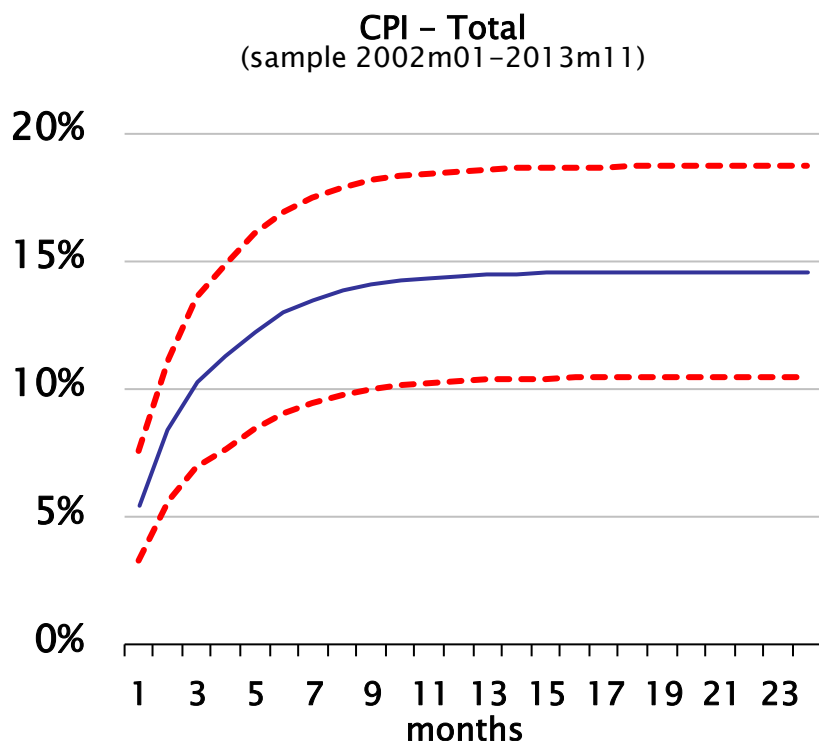
- Exchange rate vulnerable to copper price, USD valuation, capital movements
- Substantial pass-through from nominal exchange rate to domestic prices
- High degree of indexation, inherited from inflationary past –including inflation-adjusted value unit (UF)
- Short-term inflation volatility from energy and food
- Output gap limited by lower short-term GDP potential, lower influence on inflation



Exchange rate pass-through is significant and concentrates in the short-term (2 quarters)

SVAR Results

(Response of inflation to a 100% NER shock)

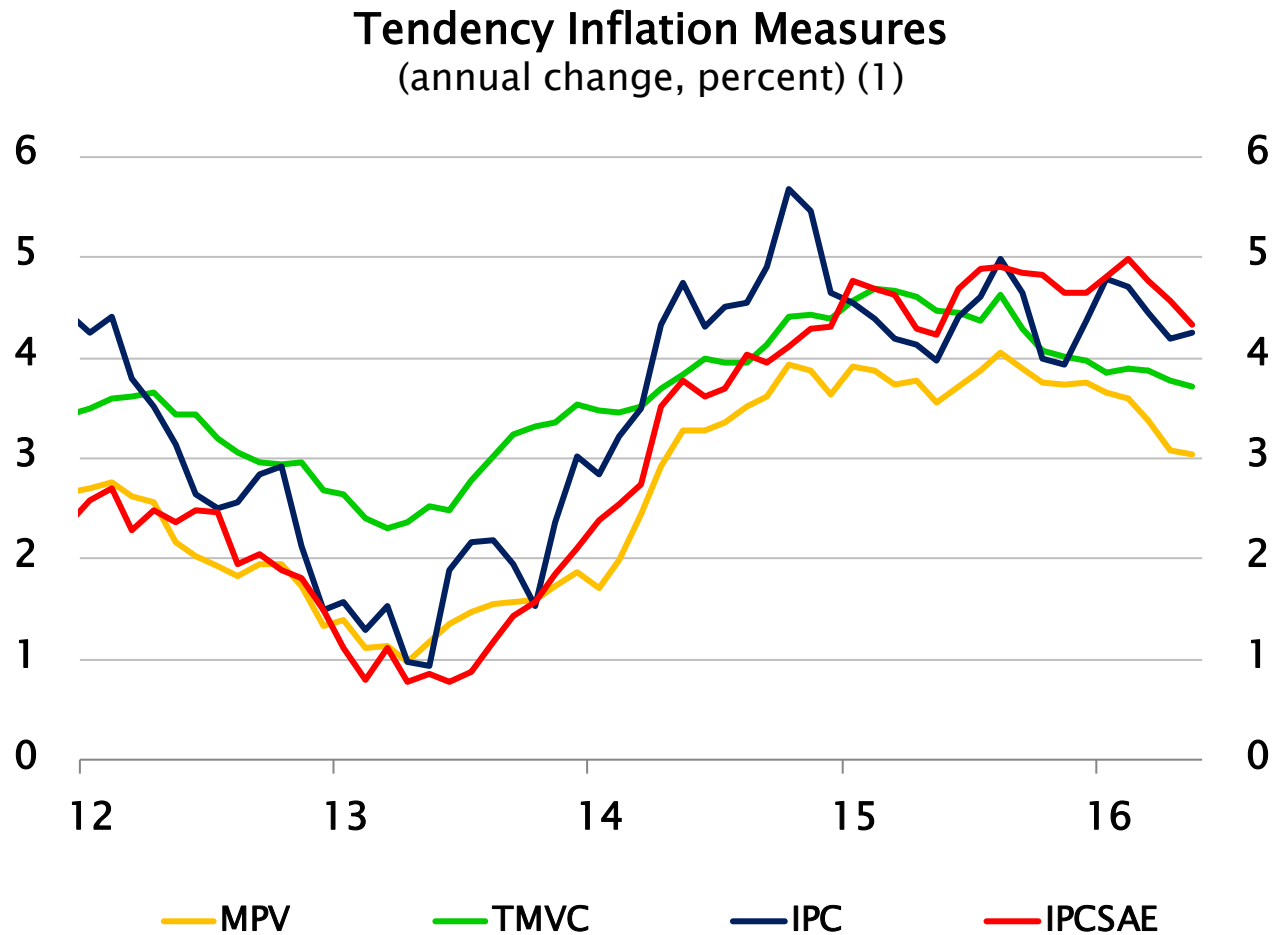


Note: 95% interval confidence estimated with *bootstrap*.

Sources: Bertinatto, L., S. Justel, A. Sansone y D. Saravia (2014), “El Traspaso del Tipo de Cambio a los Precios”, Monetary Policy Report, march 2014, Central Bank of Chile.



After 2 ½ years above policy range, inflation is converging to target, according to several measures

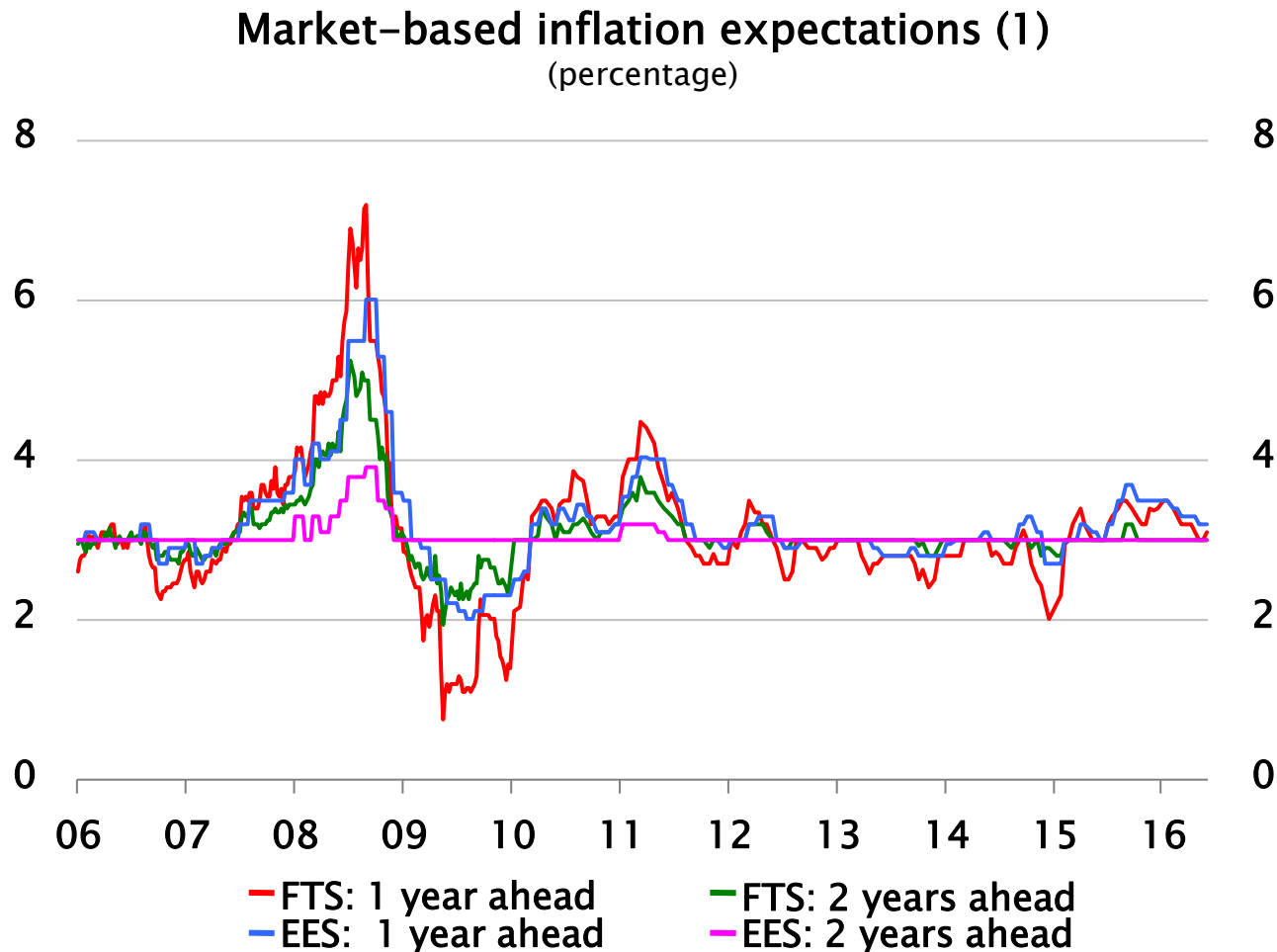


(1) (1) **MPV**: measure that excludes items with higher/lower monthly variations. **TMVC**: measure that exclude most volatile items.

(2) Source: Central Bank of Chile.



Reversion partly due to 2-year inflation expectations remaining anchored to policy target





On balance ...

- Supply-push inflation above policy range set a major challenge to Central Bank
- CB prioritized relative prices adjustment in the face of lasting ToT deterioration
- Mid-term inflation expectations stable and on target is helping inflation convergence
- Economy adjusted (government balance, current account, low borrowing costs)
- But growth remains low, due to adverse external conditions, consumer and business pessimism and productivity slowdown
- Not within CB grasp



Relevant questions

- Potential and trend GDP and neutral MP rate
- Width of tolerance range with high ER volatility
- How and when do short- and long-term inflation expectations connect?
- Measuring and using core inflation
- How to further reduce pass-through and indexation?
- Redundancy of complementary policy objectives
- Financial regulations, banks' behaviour and market rates
- Institutional independence, open market operations and CB balance sheet



Thank you

mmarcel@bcentral.cl