

# Current Financial Turmoil and Monetary Policy in Chile

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## Monetary Policy Framework in Chile

- Our Inflation Targeting Framework
- Legal Framework
- How this scheme has preformed so far.

# Monetary Policy Framework in Chile: History

**Inflation targets have been set by the Central Bank of Chile since 1991.**

**A fully-fledged inflation targeting framework was set in 1999.**

Main Characteristics of actual regime:

- ▶ Floating exchange rate regime
- ▶ Permanent inflation target
  - 2%-4% in 2000-2006
  - Most of the time 3% +/- 1pp since 2007
- ▶ MP horizon over the medium term
  - 12-24 months in 2000-2006
  - Around 2 years since 2007
- ▶ Transparency
  - Inflation reports every 4 months
  - Detailed minutes of MP meetings after 3 weeks
  - Pre-announced MP meetings every month

# Legal Framework

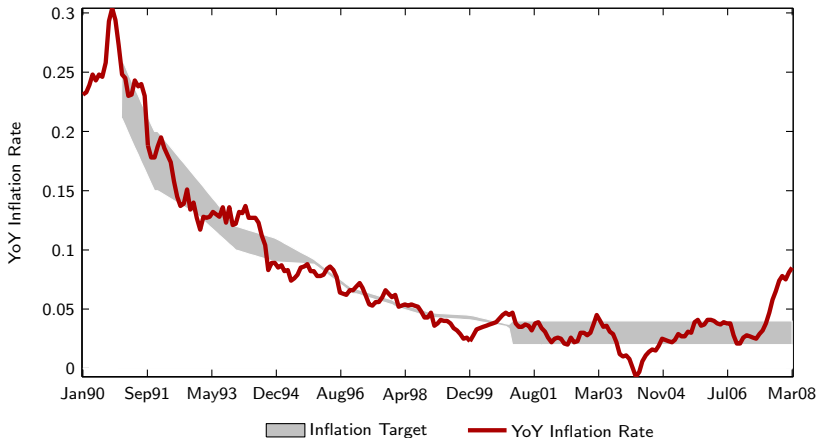
Independence and objectives set in constitutional law mandate:

**Safeguard the stability of the currency and ensure the normal functioning of the domestic and external payments.**

This is achieved through:

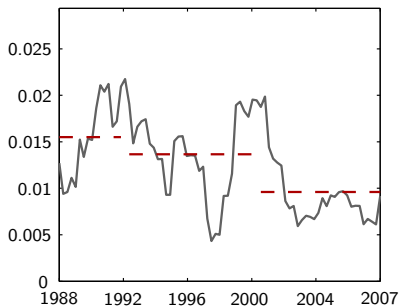
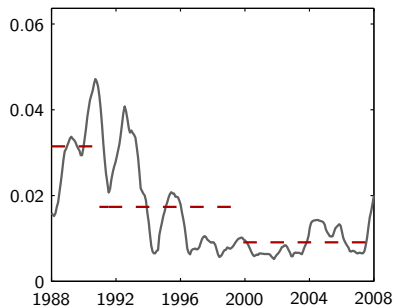
- ▶ Price Stability: This is achieved through maintaining low and stable inflation, sustainable over time.
- ▶ Financial Stability: Insuring the proper functioning of the financial system and payments, internal and external.

## Deviation of inflation rate from target<sup>†</sup> (January 1990- March 2008, annual percent change)



<sup>†</sup> Sources: National Statistics Bureau and Central Bank of Chile.



Growth Volatility<sup>†</sup>Inflation Volatility<sup>†</sup>

<sup>†</sup> Note: Standard deviation of annual inflation rates using two-year moving windows.

Source: Central Bank of Chile.



## Challenges in Turbulent Times

- Output stability in an inflation target regime
- Core vs headline inflation
- Macroeconomic performance in developing countries:  
The Great Moderation
- Risk Management
- Reliable measures of inflation expectations
- Why did inflation in Chile go up so fast, relative to other countries?

# Output stability in an inflation target regime

Is inflation all that matters?

The inflationary objective can be described by a desired distribution for inflation. This may be thought of as defining an average value for inflation and its variability (variance).

Setting the target as a mean and a variance is equivalent to defining the target in terms of a range and the percentage of time one expects it to be in the range. This is comparable to setting the target around an inflationary projection for the future, where the time frame ahead is known as “policy horizon” and depends on the inflation target variance. The greater the fraction of time inflation is sought to be within the range, the shorter the necessary policy horizon.

A flexible inflation-targeting scheme, where the target is defined with a time horizon, reflects an objective function of the central bank, which values price stability and output and employment stability. In particular, a direct relationship also exists between the policy horizon and tolerance to inflation deviations from the target on one hand, and the importance attributed by authorities to output deviations, on the other.

## Core vs headline inflation

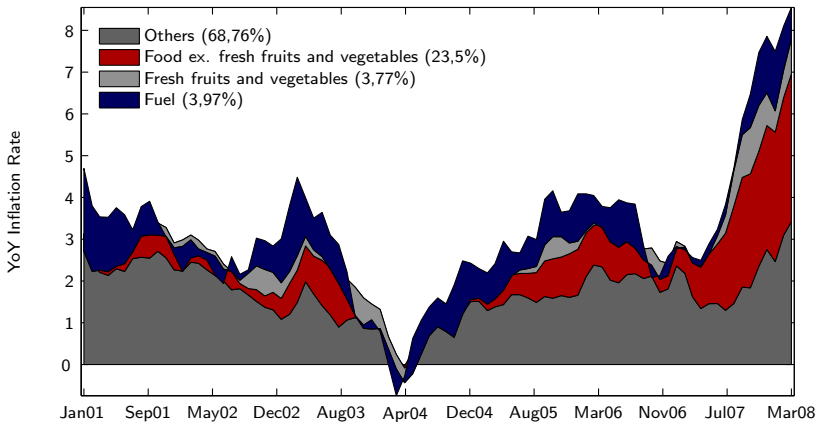
This issue becomes increasingly important given the nature of the supply shocks seen today. Responding to headline inflation movements in this scenario, brings about a more aggressive MP, and thus it has costs in terms of activity. However, responding to forecasts of headline inflation with a proper time horizon avoids these problems by allowing different responses to transitory and permanent shocks.

Using core target will also do this point. Focusing on core helps keep expectations anchored in events of high transitory headline inflation, thus limiting the need for aggressive MP response. In principle core measures should exclude all “flexible” prices.

However, credibility, proper definition, and understandability of core measures is a problem. Specially when the nature of price shocks may change over time, items that have been highly volatile in the past may not be so in the future, hence the use of alternative measure of core inflation, making communication harder and harming credibility. It can also increase persistence of inflation by not providing anchor for some subset of prices.

In addition, high non-core prices, such as food or gasoline, could prevent increases in core prices by squeezing expenditure in core goods.

## Annual CPI inflation † (annual change, percent)

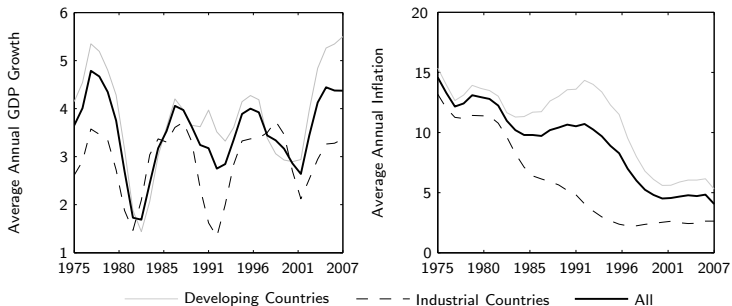


† In parentheses, CPI basket weights.

Sources: Central Bank of Chile and National Statistics Bureau.

# Macroeconomic performance in developing countries: The Great Moderation

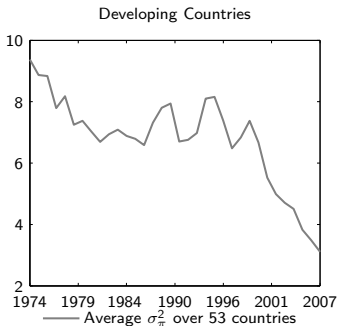
## Average Growth and Inflation



Note: Inflation was calculated using YoY % change of consumer prices, given by IFS line 64. Growth was calculated as the YoY % change of GDP Volume as given by IFS line 99b. Averages are taken over all available countries that have data from 1975. Industrial and developing status of countries has been taken directly from IFS.

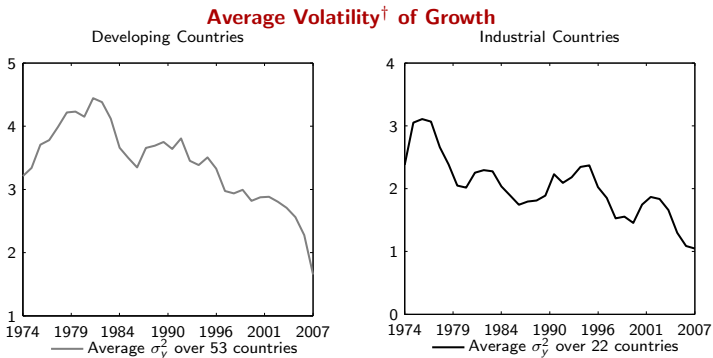
# Macroeconomic performance in developing countries: The Great Moderation

## Average Volatility<sup>†</sup> of Inflation



<sup>†</sup>Note: Volatility is measured as the standard deviation, over a rolling window of five years.

# Macroeconomic performance in developing countries: The Great Moderation



<sup>†</sup>Note: Volatility is measured as the standard deviation, over a rolling window of five years.

# Macroeconomic performance in developing countries: The Great Moderation

The volatility of growth and inflation has fallen to record levels, while inflation levels fell, growth remained similar, but with a significant increase in recent years.

Therefore, the **Great Moderation** arrived to the developing world.

Some have argued this is the result of good luck. Others, to technological progress such as better inventory management. However, comparing developing and developed countries we can conclude that it must have been, to a great extent, good macroeconomic policies.

The great moderation took place in the mid 80s in industrial countries while for developing economies it gained strength only in the second half of the 90s. If the main driving factor were only global factors (good luck or technical progress), one would expect the reduction of volatility to occur at the same time in most countries. In contrast, the great moderation coincides with the decline in inflation, which suggests a key role for macroeconomic policy, i.e., fiscal consolidation and inflation control.

This also helps to explain partial decoupling in the current turmoil.

## Risk management

Current policy actions in the US are doing risk management. As Mishkin's has said "the most likely outcome—referred to as the modal forecast—for the economy may be fairly benign, but there may be a significant risk of more severe adverse outcomes. In such circumstances, the central bank may prefer to take out insurance."

In emerging market economies the main risk today is inflation. The recent shocks may propagate to high and persistent inflation if expectations become unanchored and pricing practices react accordingly. All this can derive on an inflation spiral, fueled by higher prices, higher indexation practices, accelerating wages and increases in inflation expectations. These processes can be very persistent and extremely costly to the economy. Appropriate risk management should be done to avoid the possibility of such a bad scenario.

But also, the global outcome of the current turmoil is greatly uncertain. There are risks of sharp rises in inflation, deep global downturn, or financial meltdown. These risks also may need some additional insurance. Recent Chilean experience: accumulation of reserves in the context of an appreciated exchange rate, high inflation, but converging gradually to the inflation target..

Objectives sometimes may collide, and that may create further problems. Any combined action requires consistency of policy stances.

## Inflation anchoring and reliable measures of inflation expectations.

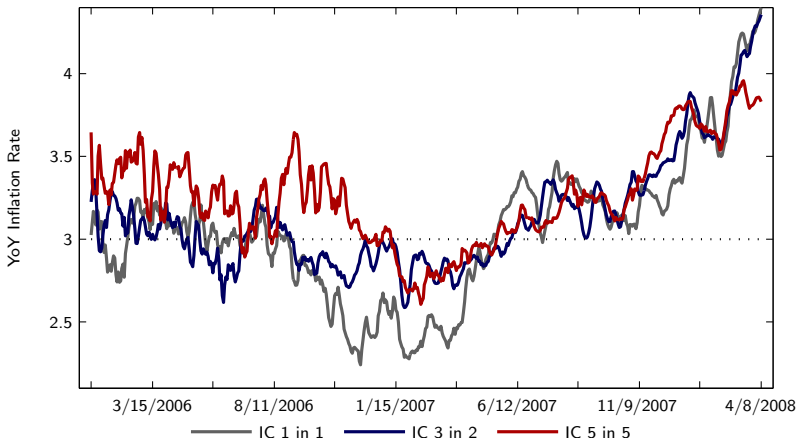
Anchoring inflation expectations reduces the costs of stabilizing inflation. If inflation expectations loose anchor, the costs of controlling inflation increase heavily.

Thus, the importance of monitoring inflation expectations.

However, normally reliable measures (inflation compensations) become noisy in this scenario of high inflation uncertainty and flight to liquidity. Increases in inflation compensations reflect a mix of expectations and inflation risk premium.

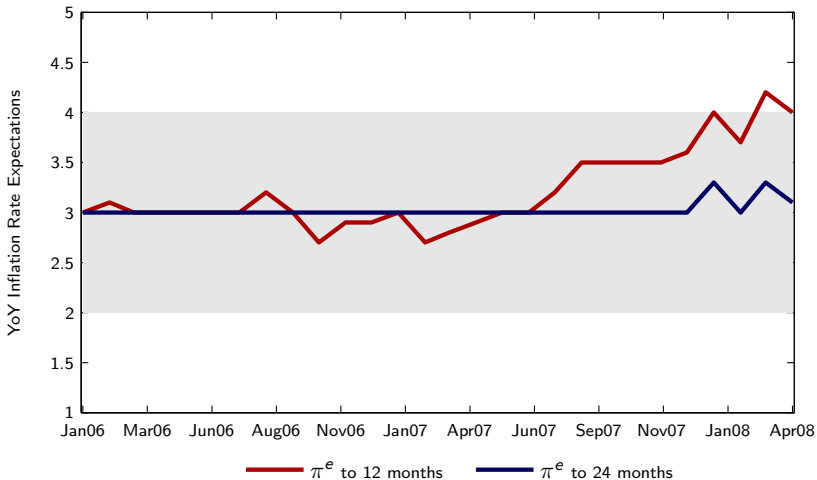
# Inflation anchoring and reliable measures of inflation expectations.

**Forward inflation compensation from swap rate average  
 (moving weekly average, percent)**



Source: Central Bank of Chile.

## Inflation expectations surveys † (percent)



† Source: Central Bank of Chile.

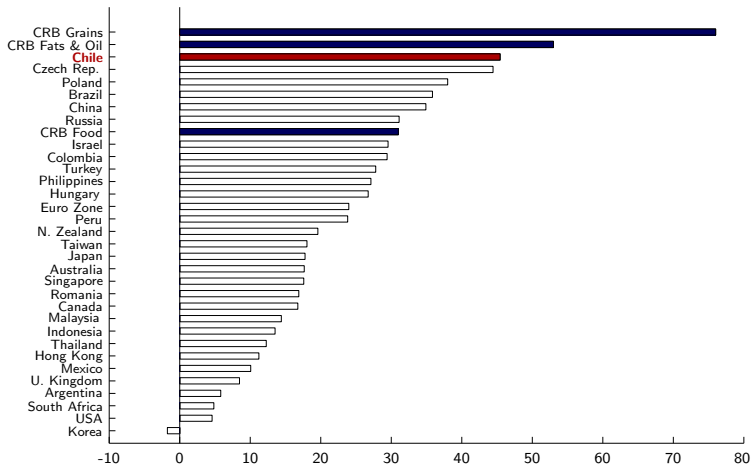
# Why did 2007 inflation in Chile go up so fast when compared to other economies?

International price shocks have been larger in Chile.

Climate problems for domestically produced food added to the international price shock. In addition, Chile operates with little distortions in goods markets and large trade integration.

Will other countries have the same inflation cycle than Chile, together with few other countries, but with a lag? or is more global food inflation coming?

## Food price indices<sup>†</sup> (annual change in US dollars, percent)



<sup>†</sup> Figures as of February or March, as available.

Sources: Each country's central bank, Bloomberg, Commodity Research Bureau (CRB), each country's statistics bureau and International Monetary Fund.

# Conclusions

The combination of a fiscal rule, that makes fiscal policy predictable and countercyclical, a sound financial system with prudential regulation, a flexible exchange rate regime and a flexible inflation target scheme allowed the Chilean economy to have sustainable low inflation and stable growth.

Today, the challenge for monetary is to insure inflation returns to the target in the policy horizon while strengthening the resilience of the domestic economy to a deteriorated global context, characterized by high commodity prices and inflationary risks, slowdown of the world economy and financial stress.

This is the best contribution of macroeconomic policies to long term growth and stability.