Getting Rules into Policymakers' Hands: A Review of Rules-based Macro Policy

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Agenda

I. Rules *vs* discretion in macroeconomic policy
II. Monetary policy rules
III. Fiscal policy rules
IV. Deconstructing macro policy rules
V. Why are monetary policy rules more complied with than fiscal rules?

Rules *vs* discretion in macroeconomic policy

Intelligent and rational economic agents

- The 1970s were a golden decade in economic thinking
- Economic agents cannot be fooled indefinitely: policy shapes their expectations, of which economic outcomes depend crucially
- The design of economic policy needs to take into account how such policy affects expectations

- ***Discretionary policy*** reacts to current economic conditions…

…but may yield highly undesired outcomes when one takes into account shaping expectations and the future agents’ behavior

An inflection point in economic thinking

- Several highly influential papers formalized the concepts broadly sketched above
- Lucas (1972, 1976) and Kydland and Prescott (1977) are the most renowned examples
- These ideas changed forever the way in which economic research is conducted

1995 Robert E. Lucas Jr.
"for having developed and applied the hypothesis of rational expectations, and thereby having transformed macroeconomic analysis and deepened our understanding of economic policy"

2004 Finn E. Kydland and Edward C. Prescott
"for their contributions to dynamic macroeconomics: the time consistency of economic policy and the driving forces behind business cycles"

Monetary policy rules

A bit of (economic) history

- When the first papers appeared, the natural example was, in fact, *monetary policy*
- A strong postulate of Keynesian economics was the ***Phillips curve***: the belief that there was a stable negative relation between inflation and unemployment
- The Central Bank could choose a comfortable level of unemployment by adjusting the rate of inflation
- Milton Friedman challenged this idea in 1968 by stating that it could only be valid in the short run; in the long run, it had to be the case that inflation and unemployment were independently
- The events of the early 1970s seemed to confirm this view

The Relation Between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861–1957[1]

By A. W. Phillips

I. Hypothesis

When the demand for a commodity or service is high relatively to the supply of it we expect the price to rise, the rate of rise being greater the greater the excess demand. Conversely when the demand is low relatively to the supply we expect the price to fall, the rate of fall being greater the greater the deficiency of demand. It seems plausible that this principle should operate as one of the factors determining the rate of change of money wage rates, which are the price of labour services. When the demand for labour is high and there are very few unemployed we should expect employers to bid wage rates up quite rapidly, each firm and each industry being continually tempted to offer a little above the prevailing rates to attract the most suitable labour from other firms and industries. On the other hand it appears that workers are reluctant to offer their services at less than the prevailing rates when the demand for labour is low and unemployment is high so that wage rates fall only very slowly. The relation between unemployment and the rate of change of wage rates is therefore likely to be highly non-linear.

A bit of (economic) history

- **Lucas (1972)** and **Kydland and Prescott (1977)** elaborated on these ideas
- A Central Bank trying to permanently influence the level of activity is similar to the example of bank bailouts
- More money increases aggregate demand, and this leads firms to increase production and employment ⇨ prices are implicitly assumed to be *fixed*… but prices are not fixed indefinitely
- Eventually, agents in the economy will understand that the Central Bank is printing more money and will adjust prices accordingly
- ***Expectations*** about inflation change, more money no longer buys more goods, and the relation between inflation and unemployment disappears

The current situation

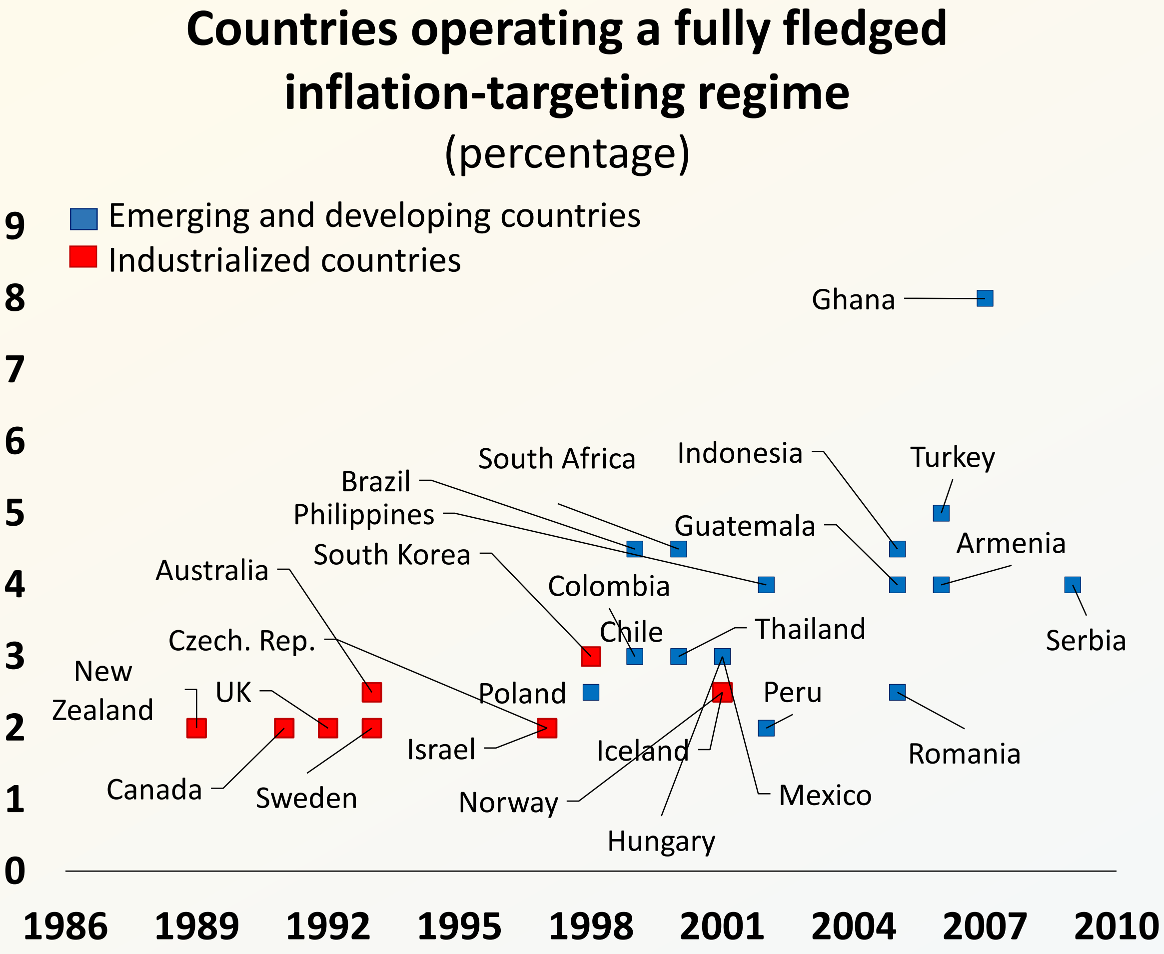
- Kydland and Prescott worked within a world in which prices were fully flexible and people fully rational and highly informed
- ***Monetary policy*** was again given a central role as a short-run stabilization tool: agents were rational and discretionary policy was suboptimal
- ***Rules*** usually come very close at replicating the optimal thing to do
  1. *Easy to communicate*
  2. *Easy to implement*
  3. *Credibility*
- Central Banks have made great efforts to obtain and sustain credibility…

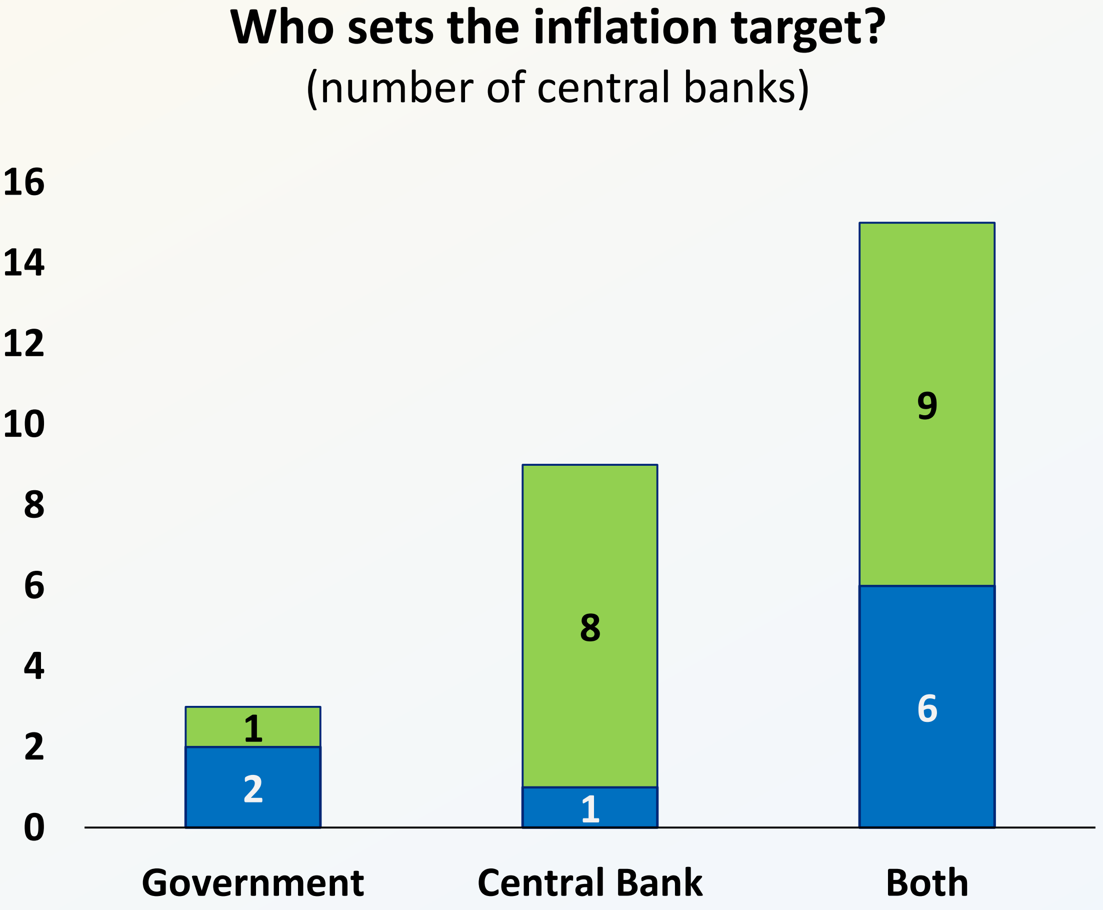
… and have adopted ***inflation targeting*** regimes

The current situation

- An ***inflation targeting*** regime is one in which price stability is set as the main goal of monetary policy
- There is an explicit numerical target for the inflation rate
- ***Credibility*** | A number of institutional arrangements accompany the quantitative rule: independence, transparency, publication of inflation and activity forecasts, accountability measures, etc.
- Inflation targeting has been highly successful in providing a reliable ***nominal anchor*** to the economy ⇨ anchoring agents' expectations
- Are the hands of the central banker completely tied, or is there some degree of freedom to implement discretionary policies?
  - If so, are they a good idea? Are there differences between an inflation targeting regime in developed and in emerging economies?

27 countries operate with inflation target (2012), with the target set, in general, jointly

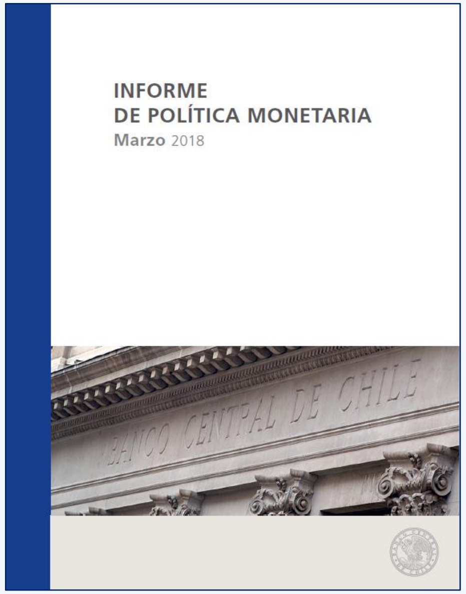




Source: Hammond, G. (2012), "*State of the Art Inflation Targeting*," Centre for Central Banking Studies, Bank of England.

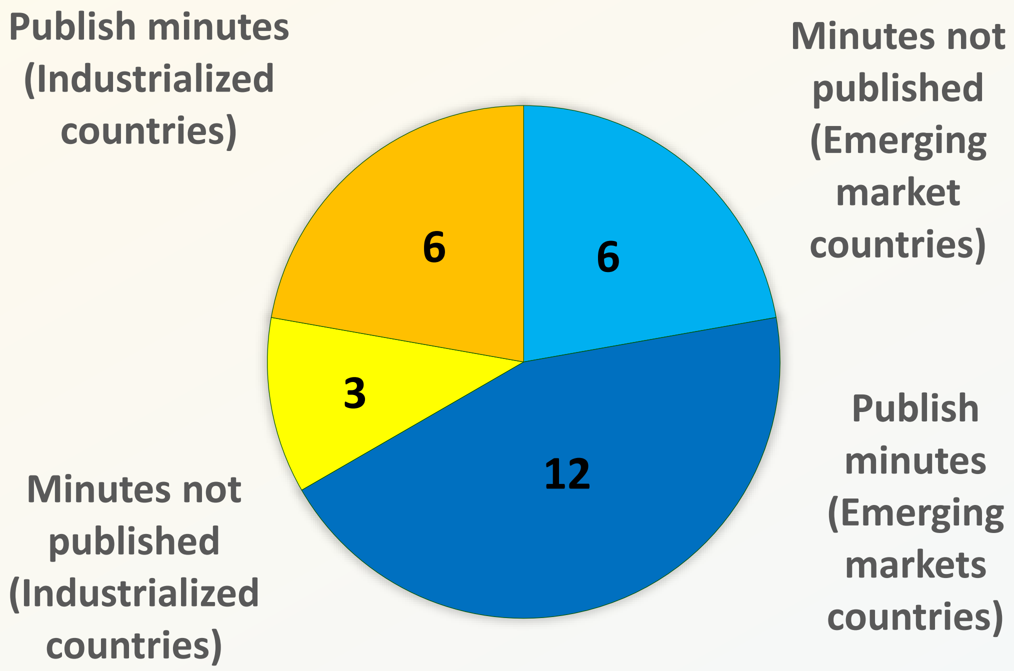
Inflation-targeting central banks

- The *right institutional setup* is as, if not more, important than the target itself
- Central Bank independence is almost always chosen in an attempt to decouple the conduct of monetary policy from the political cycle
- The mandate of price stability is usually written in the Central Bank's law, and the target is openly communicated to the public
- Central banks that are inflation targeters are usually highly technical institutions:
  - Collect data on a wide array of macroeconomic and financial variables
  - Continuously monitor agents' expectations
  - Produce reports describing the current economic situation, the outlook for the near future and the main risks the economy faces
- A reasonably high degree of ***transparency*** and ***accountability*** is expected from an inflation targeting central bank

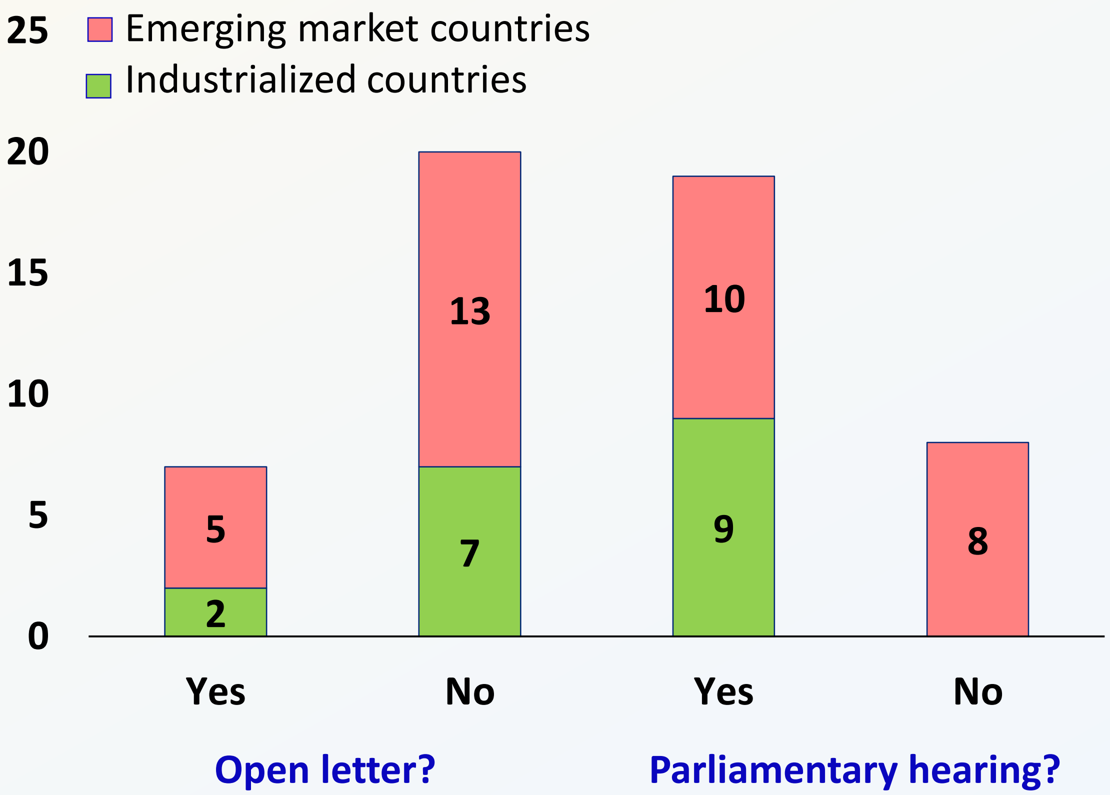


Transparency and accountability mechanisms

Transparency
(number of central banks)



Accountability mechanisms
(number of central banks)



Source: Hammond, G. (2012), "*State of the Art Inflation Targeting*," Centre for Central Banking Studies, Bank of England.

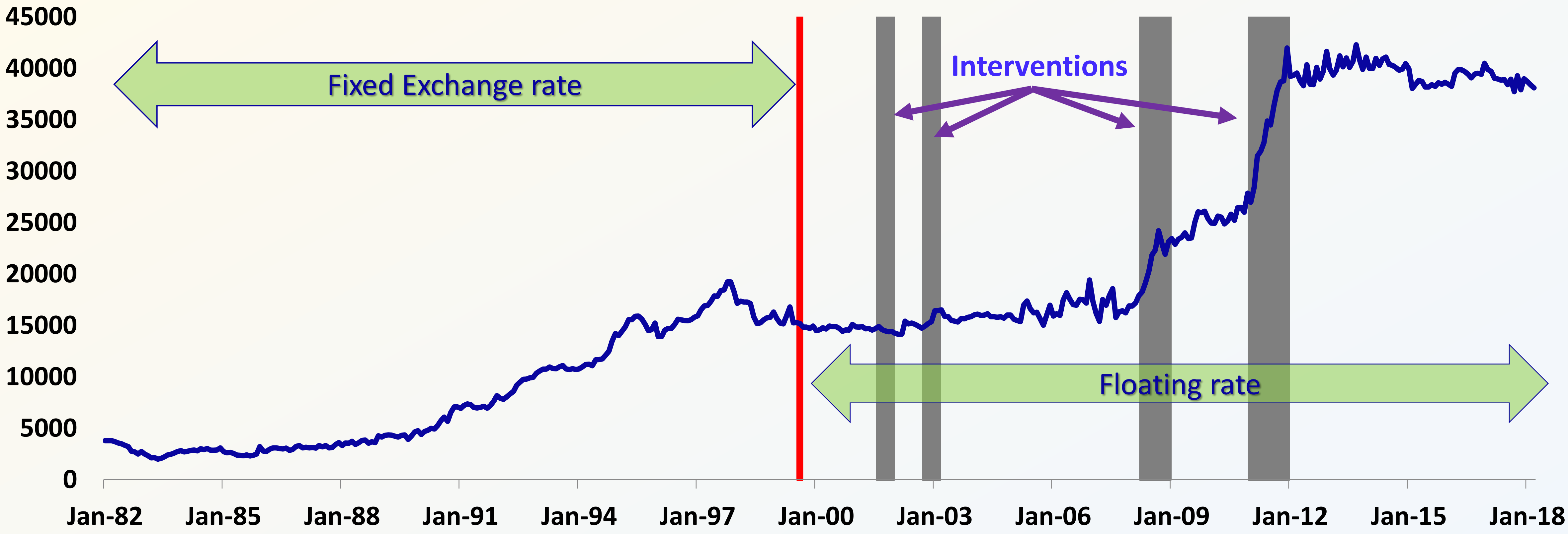
Room for discretionary policy

- Does inflation targeting mean that the Central Bank has to abide by this rule at all times and under any circumstances, and refrain from conducting any type of discretionary policy?
- The conventional answer to this question is ***yes***
- In practice, however, there are moments in which the Central Bank may choose to deviate from this if there are *sufficiently good reasons* to do so and only when this action *does not jeopardize the anchoring of expectations*
- A typical example are occasional *foreign exchange rate interventions* when there is the perception that the over-appreciated local currency is out of line with its fundamentals

Inflation targeting do not exclude the possibility that the Central Bank may intervene in exceptional circumstances

International reserves (USD millions) and exchange rate interventions

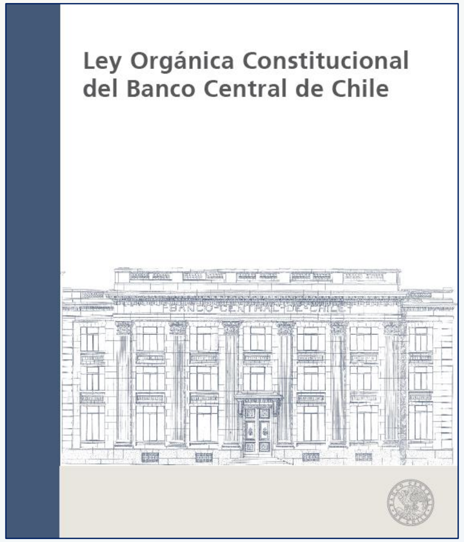
Chile: 1982-2018.I



Source: Central Bank of Chile.

Chile's institutional evolution and the CBC's Organic Constitutional Law

- The CBC was established in 1925 with a strong seal of institutional autonomy
- The 1980 Constitution establishes the autonomy of the Central Bank (Title XIII):
    1. Article 108° Autonomous organization, of a technical nature, and with its own capital
    2. Article 109° Limitations to the action of the CBC: Prohibition of granting credits to public organisms, and power to dictate norms

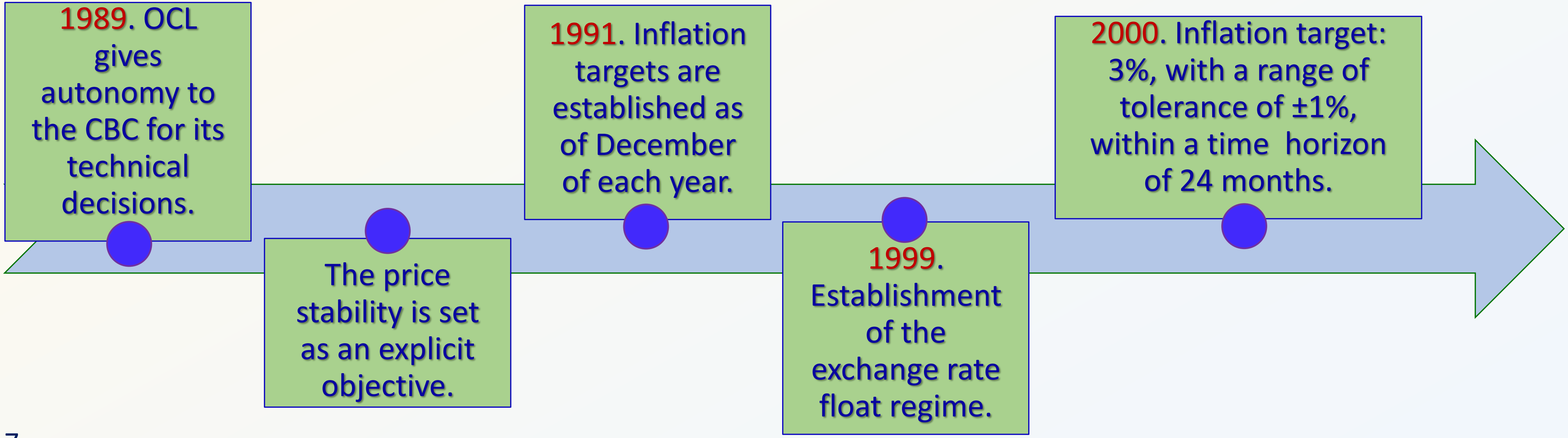


Law 18.840 of 1989, *CBC Organic Constitutional Law*

- It translates into practice the concept of ***autonomy***: objectives, composition and functioning of the Board; monetary, credit, financial and exchange faculties
- The central objectives of ***macroeconomic and financial stability*** are enshrined
- In 1989, the first Board was established

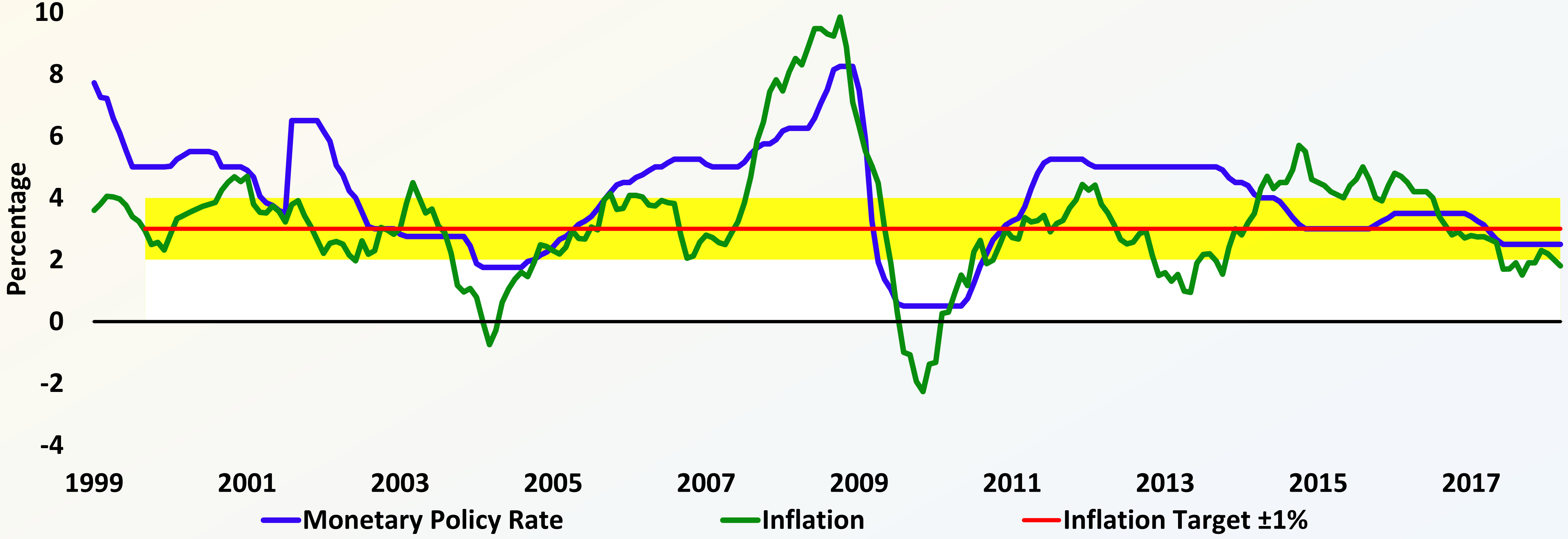
Inflation targeting and the exchange rate regime

- Since 2000, monetary policy is conducted under an ***inflation targeting*** regime
- The goal established by the Central Bank is **3%** of the annual variation of the CPI, with a tolerance range of **±1%**
- The policy actions are adopted within a **time horizon of 24 months**



The CBC has managed to control inflation and anchor public expectations

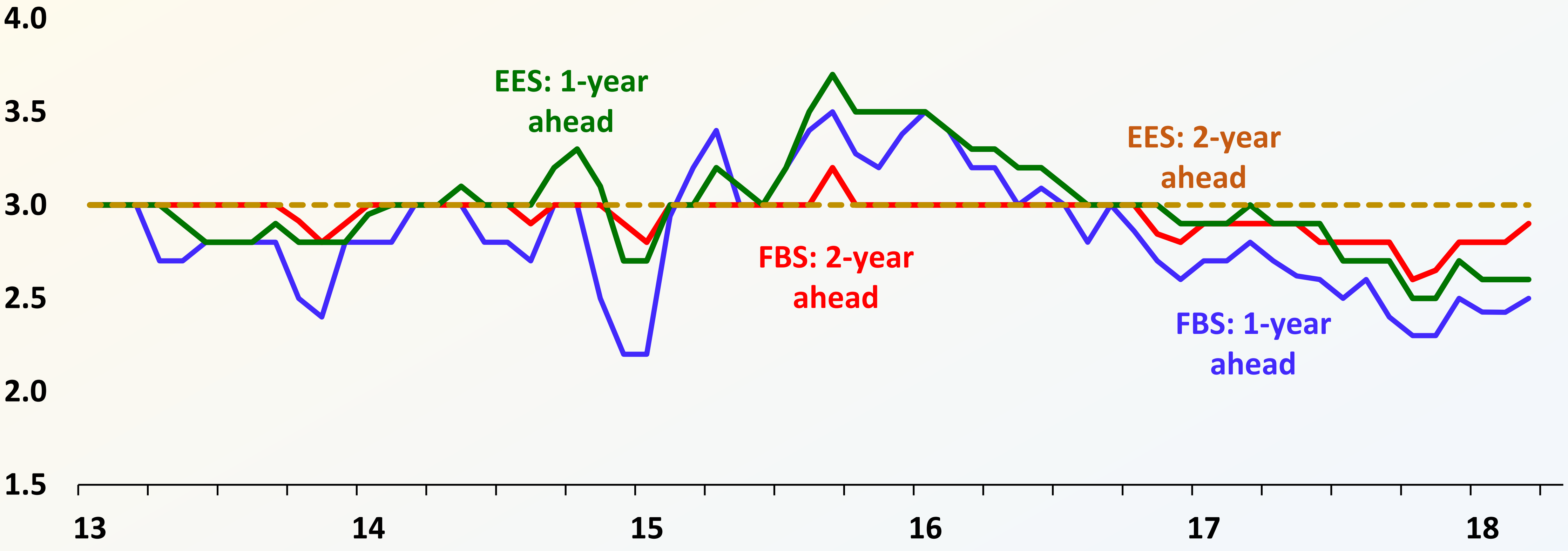
- Inflation has fluctuated around the target, although there are periods when it deviated from the tolerance band of ±1%
- The response of monetary policy has been significant and far from being mechanical



Sources: Central Bank of Chile and National Statistics Institute.

Inflation expectations and anchorage hypothesis

Total Inflation and Expectations:
***Economic Expectations Survey* (EES) and *Financial Business Survey* (FBS)**
(percentage)



Source: Central Bank of Chile.

Fiscal policy rules

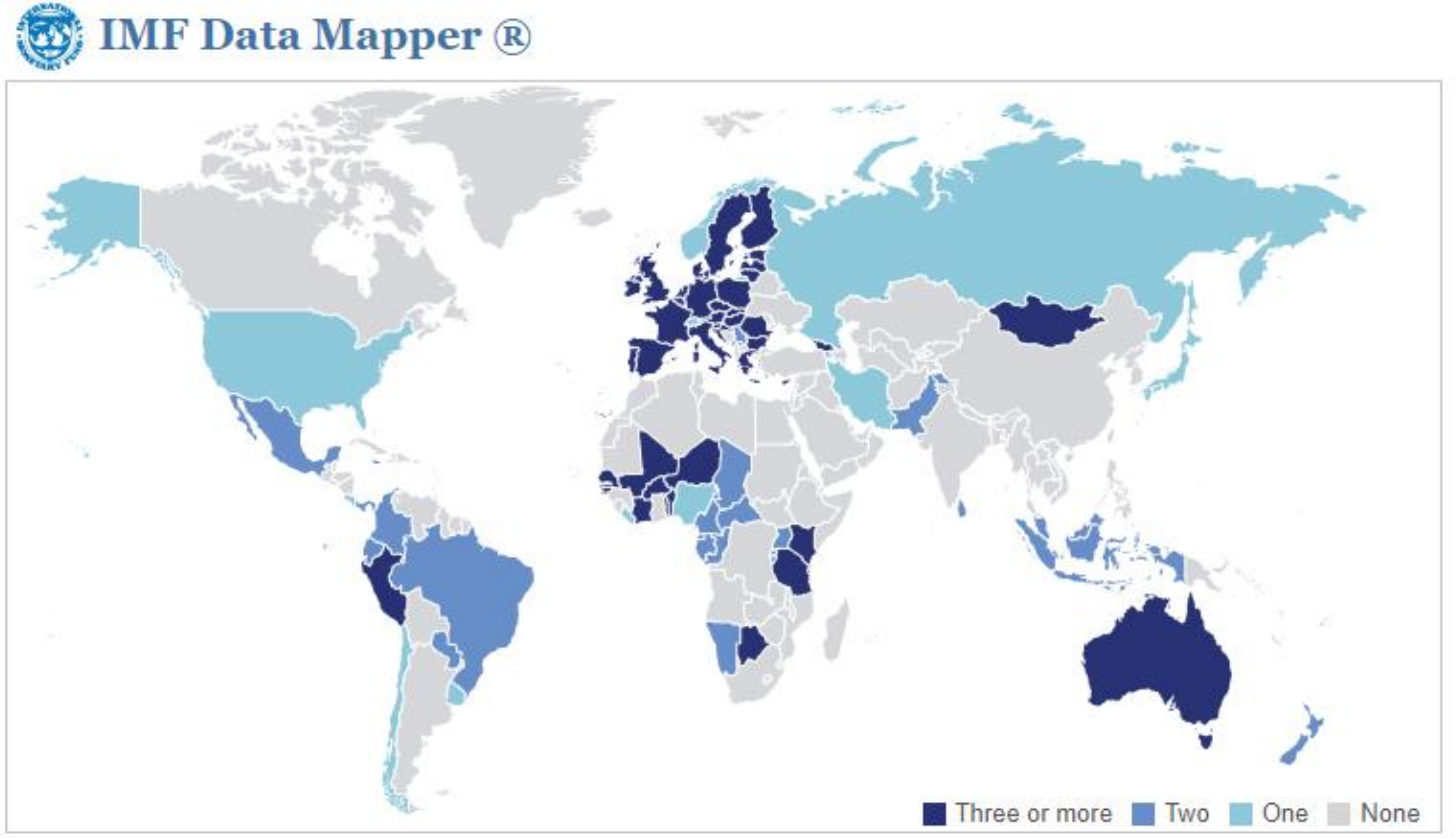
Fiscal rules, on the other hand, are a different story

- They are much more diverse, both in their formal definition as well as in their implementation, and compliance is usually much less strict
  a. What are fiscal rules and how widespread are they?
  b. Are they desirable, or do they restrict the government in pernicious ways?
  c. Are governments complying with them and, if not, can something be done about it?
- The IMF defines a fiscal rule as a rule that "*imposes a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates*"
- Fiscal rules have been in place since as early as 1947 (Japan)
- As of 2012, 76 had adhered to one or more fiscal rules, at least nominally

Fiscal rules, on the other hand, are a different story

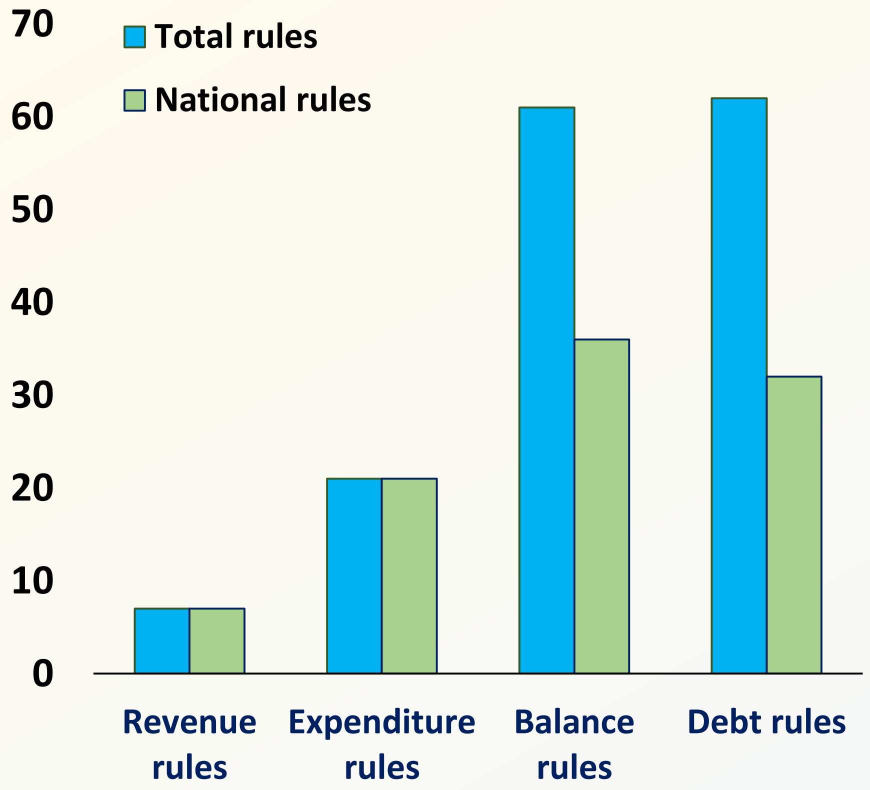
- Four main groups, based on the *budgetary aggregate* they target:
  1. Debt rules that target or limit public debt as a percent of GDP
  2. Budget balance rules, which can constrain the overall balance or the structural balance
  3. Expenditure rules that set limits on total, primary, or current spending
  4. Revenue rules
- Contrary to what happens with monetary policy, there is less consensus on what the "***right***" fiscal rule is
- Each country has to adopt the rule that better fits its institutional, political and economic needs and constraints
- Low-income economies favor debt rules, while advanced economies tend to lean towards budget-balance rules

Number and type of fiscal rules – 2015

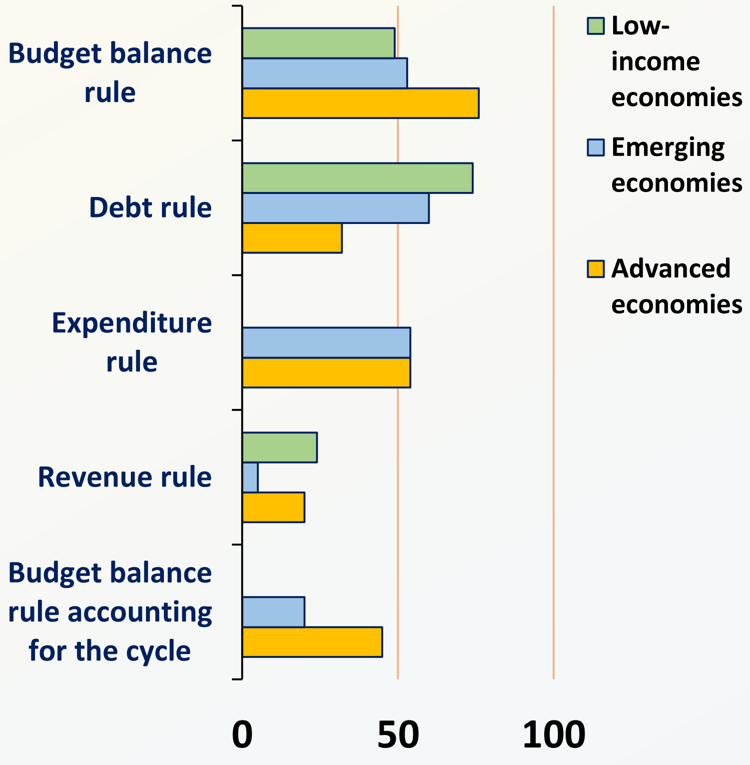


Number and type of fiscal rules

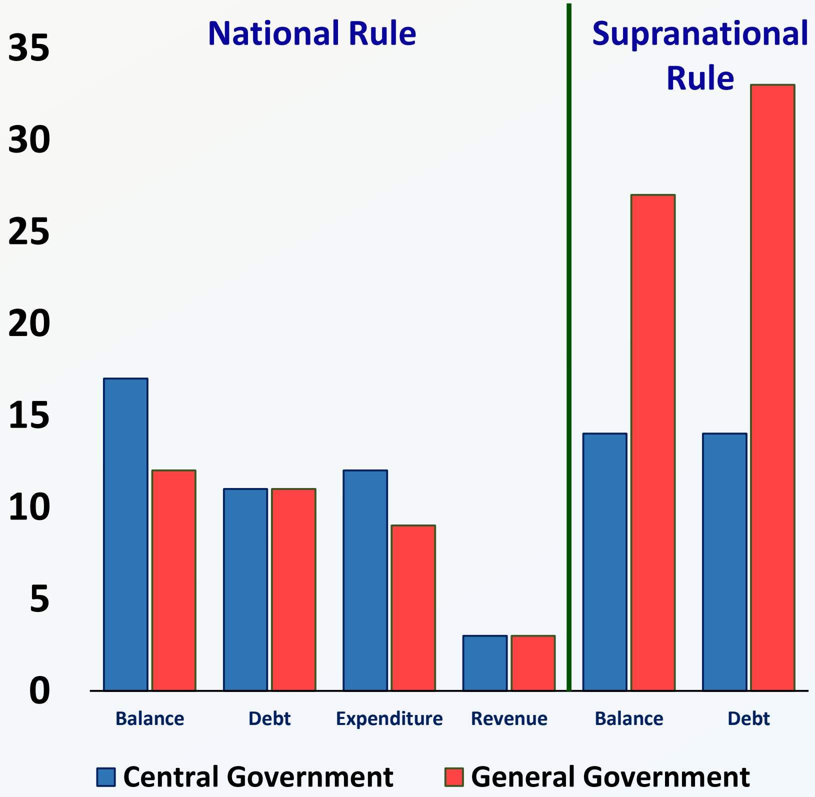
Types of Fiscal Rules in use, 2012
(number of countries)



Regional differences of the type of National Fiscal Rules
(share of countries with specific rule)



Coverage of Fiscal Rules, 2012
(number of countries)



Source: Schechter, A., T. Kinda, N. Budina, and A. Weber (2012), "*Fiscal Rules in Response to the Crisis – Toward the "Next Generation" Rules. A New Dataset*," IMF Working Paper 12/187.

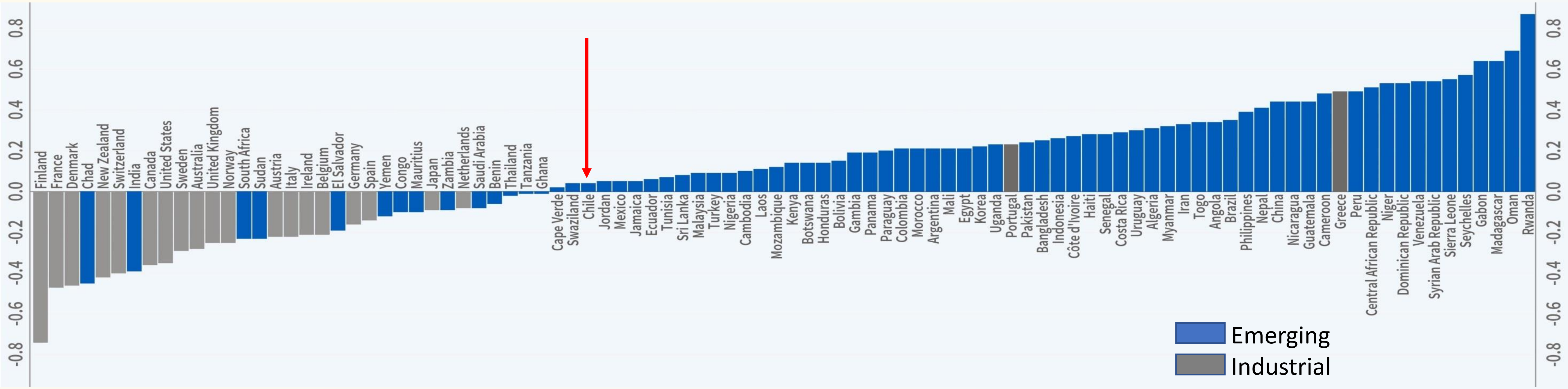
Are fiscal rules a good idea?

- A ***credible*** fiscal rule may improve confidence in the economy in addition to put discipline to the policymaker
- There is not that much evidence about the efficacy of fiscal rules in practice, but seem to exert an effective signaling role to financial markets
- Some evidence show that **rules limit procyclicality** of fiscal policy and aid in enhancing countercyclical policy (Bergman and Hutchison, 2015)

Chile’s macro policies have become substantially countercyclical

Country Correlations between the Cyclical Components of Real Government Spending and Real GDP, 60-14

(correlations)



- Still, economic shocks exist
- The business cycle can be smoothed but not abolished altogether

Source: Carlos Végh’s webpage based on Kaminsky and Végh (2004).

Compliance with fiscal rules

- A problem with fiscal rules is that compliance is far from perfect: at the global level, *only about 50% of balanced-budget rules are complied with* (Reuter, 2015; Eyraud *et al*., 2018)
- Deviating from the rule too often can signal a weak commitment capacity of the policymaker: discretionary policies are the norm
  - Very harmful consequences on agents' expectations regarding fiscal responsibility and, more generally, on future policies

Deconstructing macro policy rules

Components of a macro policy rule

1. An underlying measure/indicator
2. A numerical target
3. A regular reporting mechanism to compare the actual value of the indicator vs target
4. Exception/escape clauses that allow to depart from the rule under exceptional circumstances
5. Accountability mechanisms, establishing rewards/penalties to policymakers when departing from the target
6. Convergence provisions, to organize the transition towards the target when departing from a distant position or to return to it after missing the target or resorting to an escape clause

Why are monetary policy rules more complied with than fiscal rules?

Rule design issues

- *Complex measures*: role of government accounting
- *Unrealistic or inappropriate targets*: procyclical rules
- *Information asymmetry*: inadequate reporting
- Poor accountability, including convergence provisions

Political issues

- Goal congestion, considering non-fiscal objectives of government policy
- Time inconsistencies (preference for short-term employment and activity outcomes)
- Ineffective checks and balances due to biased political preferences

Coordination of monetary and fiscal policy

- ***Independence*** of a Central Bank does to mean that there should be no coordination between monetary and fiscal policy
- On the contrary, in the presence of large shocks, stabilization will be *more effectively achieved if all economic tools are used for the same purpose*
- This is especially true when the range of action of monetary policy is limited by the zero-lower bound

Four reasons for a fiscal rule

- A credible commitment to a fiscal rule is an effective device to speed up the benefits of fiscal discipline
- A fiscal rule makes it much easier to operate a monetary policy rule
- A fiscal rule helps to reconcile top-down budgeting with bottom-up operational programming
- Well designed fiscal rules reduce funding uncertainty within government and extends the planning horizon of public policies

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