



Monetary policy strategy: “Old issues and new challenges”

Joint Deutsche Bundesbank/Federal Reserve Bank of Cleveland Conference
Frankfurt am Main, 6-7 June 2007

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International Monetary Fund

Discussion of „Uncertainty about Perceived Inflation Target and Monetary Policy“

by Kosuke Aoki and Takeshi Kimura

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WELL DONE!!

- Demonstrates concisely and clearly why it is a bad idea for a CB not to be numerically explicit about its price stabilization objective
- Likewise, for those CBs who have explicit IT, spells out costs of lack of credibility from multiple nominal objectives/bad communication/lack of central bank independence
- Love it.

LITERATURE

- **Erceg and Levin (2003)**—showed that when target not explicit, ‘learning’ of target by private agents can make inflation highly persistent (e.g. Great Inflation)
- **Orphanides and Williams (2005)**—if private agents *and* the CB have imperfect knowledge of the economy (natural rates) and continuously update their estimates of model parameters, stabilization more complex: standard rules like Taylor bad, integral rules OK

AK IN SHORT...

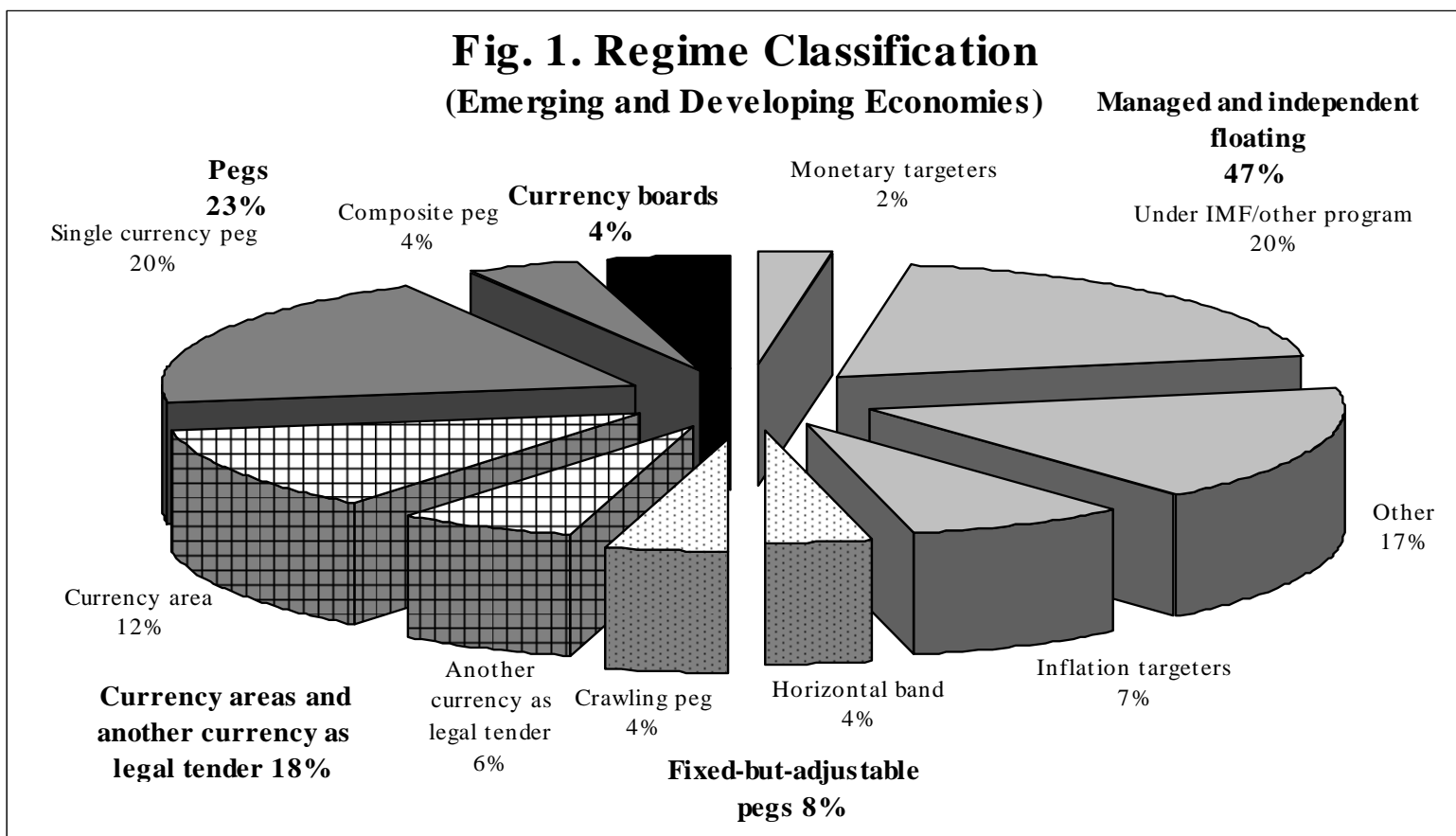
- Use a simple two-equation model (Fisher equation plus interest rate rule)
- Assume that:
 - True CB target not explicit/credible and private agents have to ‘learn’ about it
 - CB uncertain about agents’ inflation beliefs and natural rate
- Find that: **Inflation volatility and persistence way higher** than under explicit/credible CB target because these now depend on private-sector uncertainty about the inflation target plus central-bank uncertainty about the perceived target (“higher-order beliefs”).

COMMENTS

1. The target problem: Not explicit or not credible?
2. How to anchor when economic activity is hard to measure?

COMMENT (1)

- Seems obvious but it isn't. IT (explicit, unique numerical inflation target). 25 and counting.



COMMENT (1)

- Who's missing?

- **Advanced countries:** FED, BOJ.

FED—target increasingly more explicit since Volcker. Bernanke for it, coming soon?

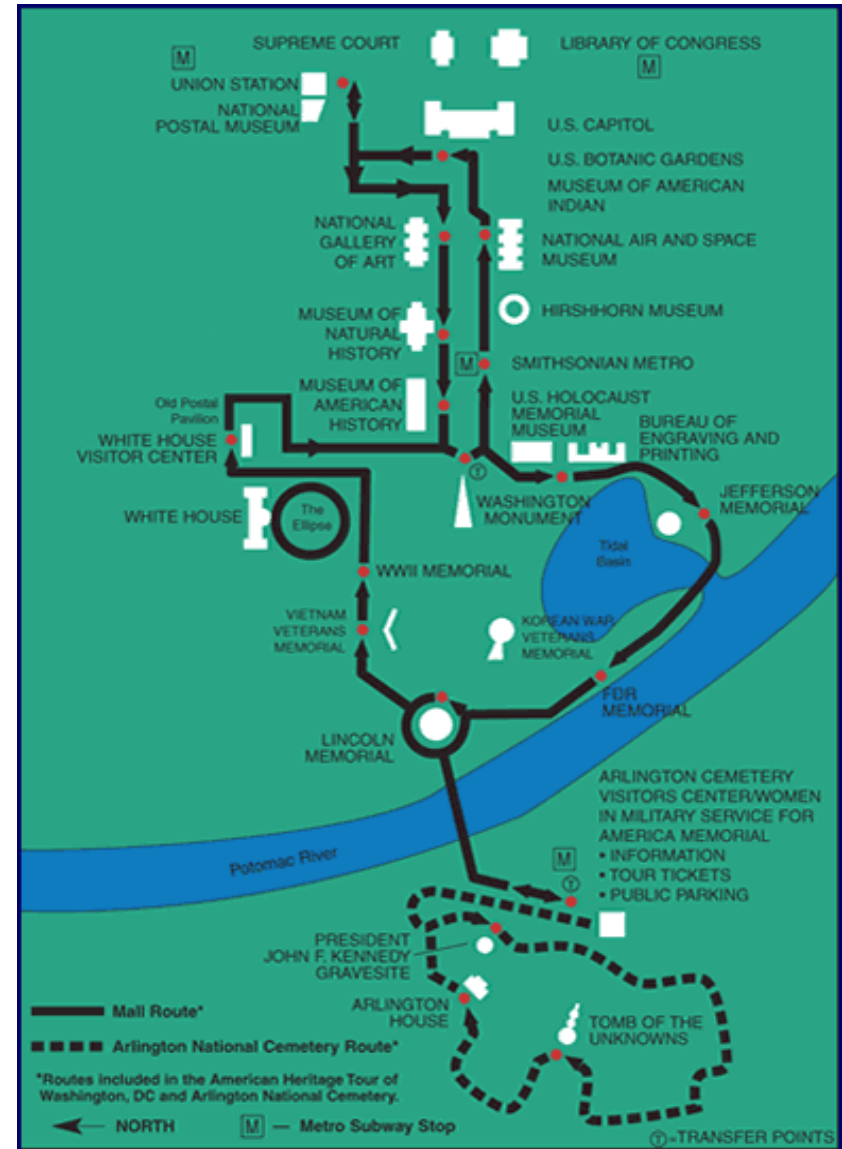
BOJ—Some say IT would have avoided deflation.

- **Emerging and developing countries.** Share of exchange rate targets fell from 75 percent to 55 percent since 1985. Recent IMF survey (2006) reveals some 40 more countries planning IT by 2010.

WHY IT? IT SPARES YOU THE RENDEZVOUS PROBLEM

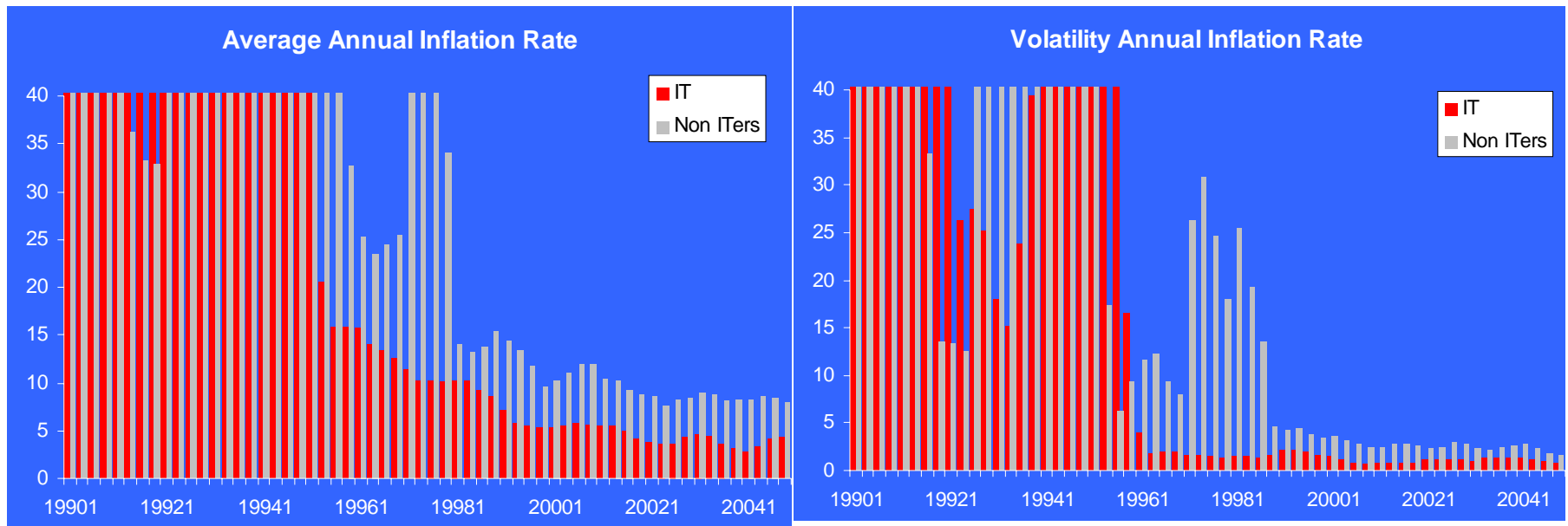
- **From Wikipedia, the free encyclopedia**
- The **rendezvous dilemma** is related to the [prisoner's dilemma](#) and can be formulated in this way:
 - Two young people have a date in a park they have never been to before. Arriving separately in the park, they are both surprised to discover that it is a huge area and consequently they cannot find one another. In this situation each person has to choose between waiting in a fixed place in the hope that the other will find them, or else starting to look for the other in the hope that *they* have chosen to wait somewhere.
- If they both choose to wait, of course, they will never meet. If they both choose to walk there are chances that they meet and chances that they do not. If one chooses to wait and the other chooses to walk, then there is a theoretical certainty that they will meet eventually; in practice, though, they would need an infinite amount of time for it to be guaranteed. The question posed, then, is: what strategies should they choose to maximize their probability of meeting?
- Examples of this class of problems are known as **rendezvous problems**.
- As well as being problems of theoretical interest, rendezvous problems include real-world problems with applications in the fields of [synchronization](#), [operating system design](#), [operations research](#) and even [search and rescue](#) operations planning.

1982: AN EXAMPLE



COMMENT (1)

- Does it pay to be explicit? Indeed it does!



Countries with explicit inflation targets exhibit lower and less volatile inflation.

COMMENT (1)

Baseline results

Estimates of coefficient on IT dummy

<u>Variables</u>	<u>πT dummy variable</u>
π	-4.820
SD(π)	-3.638
SD($y-y^*$)	-0.010
SD (growth)	-0.633

Significant at 10% level, 5% level, 1% level

Ball-Sheridan type panel regressions including EMEs (from **Batini et al. 2005**)

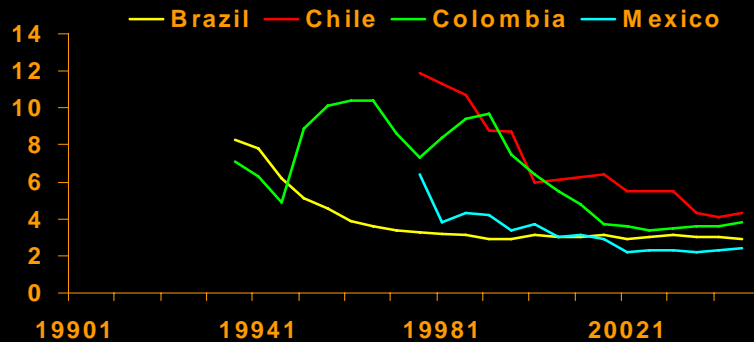
COMMENT (1)

- Credibility also improves under fully-fledged IT due to higher transparency, better communication, and typically, strong accountability and independence requirements

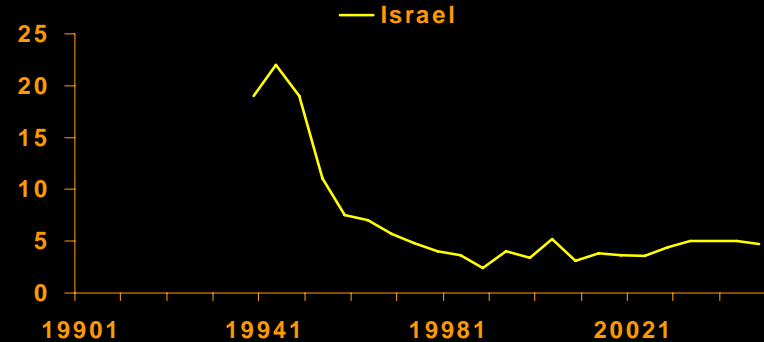
COMMENT (1)

Long-Run Inflation Expectations (Percent; 6-10 year inflation forecast)

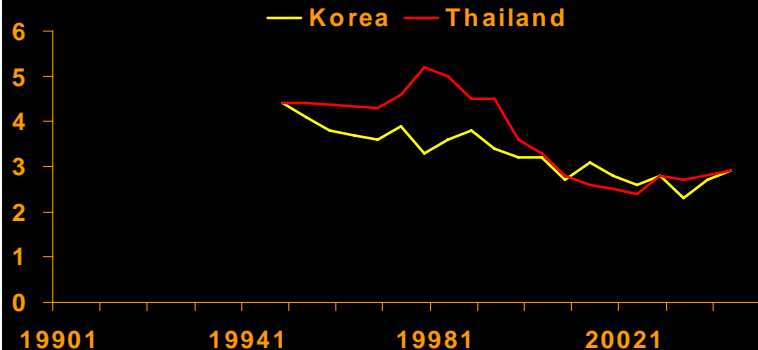
Latin America



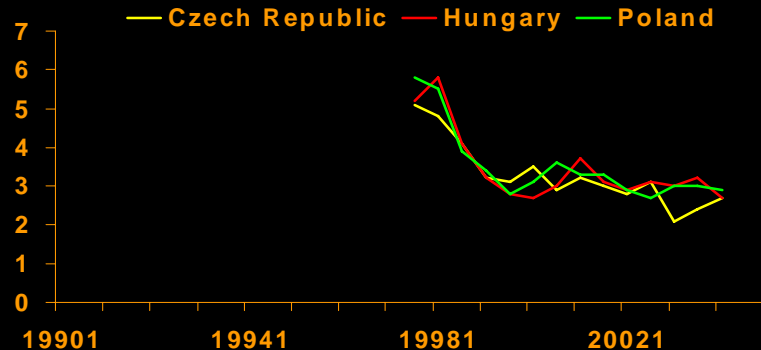
Middle East



Asia



Europe



COMMENT (1)

Inflation expectations

Variables	π_T dummy variable
5-year π forecast, level	-2.672
6-10-year π forecast, level	-2.076
5-year π forecast, SD	-2.185
6-10-year π forecast, SD	-1.737

Significant at **10% level**, 5% level, **1% level**

COMMENT (2)

- AK also find that **lack of strong nominal anchor and the measurement problem of economic activity are closely related with each other.**
- Trickier issue, especially in emerging market economies where data are poor.
- And in mature IT countries that are ‘flying blind’ (the output gap no longer indicates the way).

COMMENT (2)

- Solutions for advanced economies imply carefully balancing scarce resources between modelling and measuring dynamic economies (Greenspan, 2001) and developing new informative indicators
- Solution for EMEs imply keeping up the data work and developing dual-economy (formal/informal) models with signal extraction problems.

COMMENT (2)

- Since, as AK show, the measurement problem becomes more pernicious when monetary policy is not fully credible, in EMEs measurement problem can be alleviated by clarifying monetary objectives, and raising commitment through sound checks and balances on CB.
- Responding aggressively to noisy indicators dangerous. Much more can be gained through smart communication.

Thank you.

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