



CENTRAL BANK OF CYPRUS
EUROSYSTEM

Inflation Expectations, Uncertainty, and Monetary Policy

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Discussion: Athanasios Orphanides

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Whither monetary policy? Monetary Policy challenges in the decades ahead
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Outline of paper

- From rational expectations to rational inattention
- Disagreement in expectations and asset prices
- A view of the history of the Phillips curve
- Inflation determination without a Phillips curve
- Implications for monetary policy

Limitations of Traditional Application of Rational Expectations

- The rational expectations assumption imposes strict discipline on models requiring all agents in the model, the economists and policy makers outside the model, and nature, to share a unique set of beliefs. (Sargent's "communism of rational expectations")
- It does not explain how people come to hold these common beliefs
- It fails to address the presence and role of heterogeneity of beliefs

Why this matters?

- Oversimplifying the expectations formation process can lead to a misreading of the workings of the economy and to false policy recommendations
- At present, by and large, traditional modelling imposes rational expectation in a world with fixed and perfectly known structure, including known and stable policy preferences.
- Under such assumptions, the monetary policy problem seems trivial—and misleadingly so:
 - Anchoring inflation expectations a simple matter of policy adopting and adhering to a stable policy rule.
 - There is essentially no role for communication.

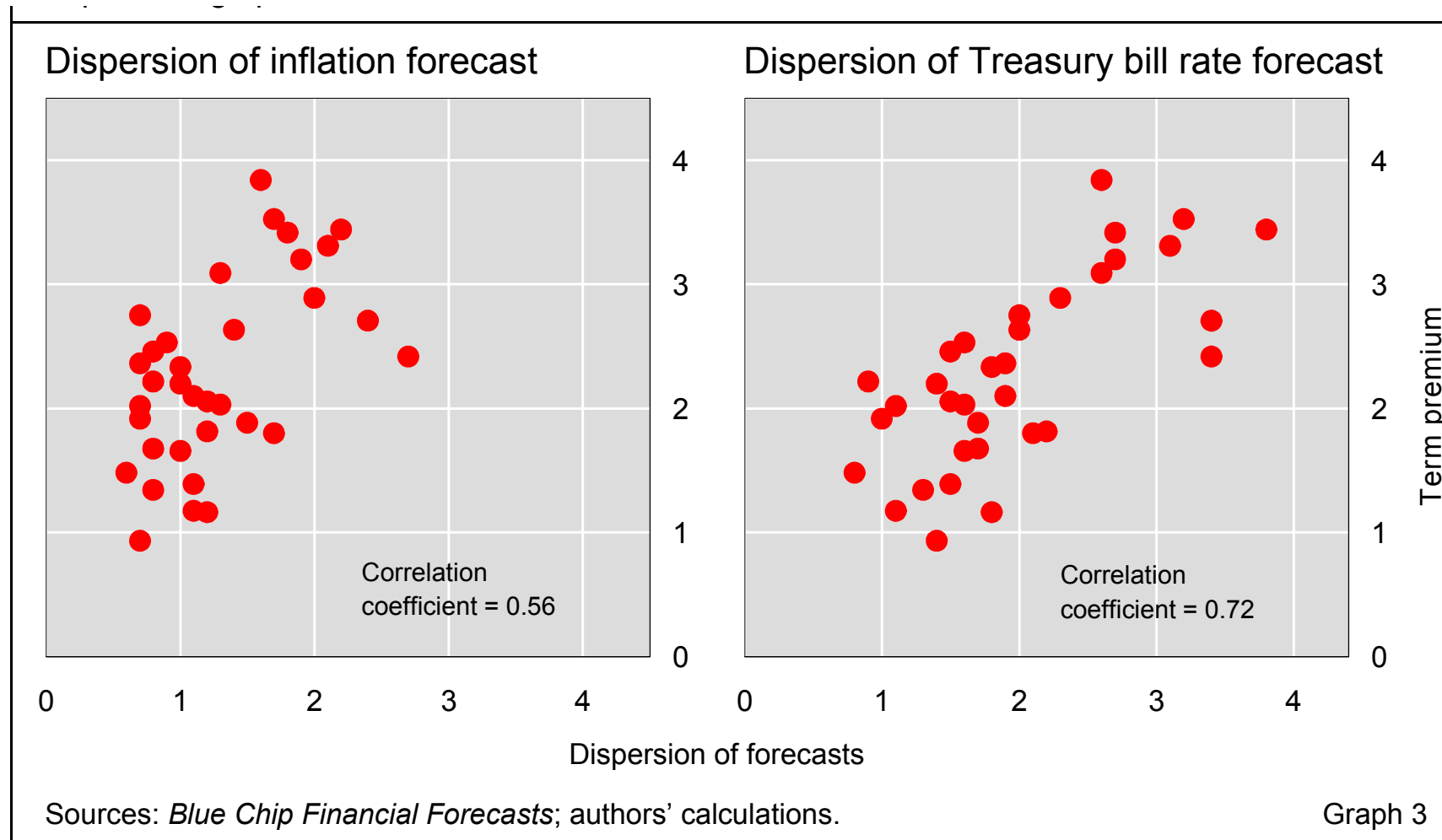
Expectations with “inattention” or “learning”

- Recent work has explored various avenues for improving the expectations formation mechanisms
- A common element in these models is the acknowledgement of the presence of “imperfections” in the formation of expectations (relative to simplistic rational expectations models)
- These models stress the limited cognitive capacity of humans and can better capture the inherent limitations in gathering and processing information
- Inattention models stay close to the microfoundations of decision making but can be hard to work with
- Learning models provide a simpler approach for deviating from traditional rational expectations by asking private agents to act as econometricians, respecifying and reestimating forecasting models with limited data to form expectations

Information from Disagreement in Expectations

- Paper develops an interesting example of an economy where differences of opinion about the course of inflation have real economic effects.
- Using survey data can illustrate potential empirical relevance of looking at disagreement in expectations
- From Bluechip survey, information is available on dispersion on long-horizon expectations of inflation and the Treasury-bill rate in the United States since the mid-1980s
- Can relate this to bond term premia—an empirical regularity in search of better theory

Disagreement in Expectations and 10 Year Bond Term Premia

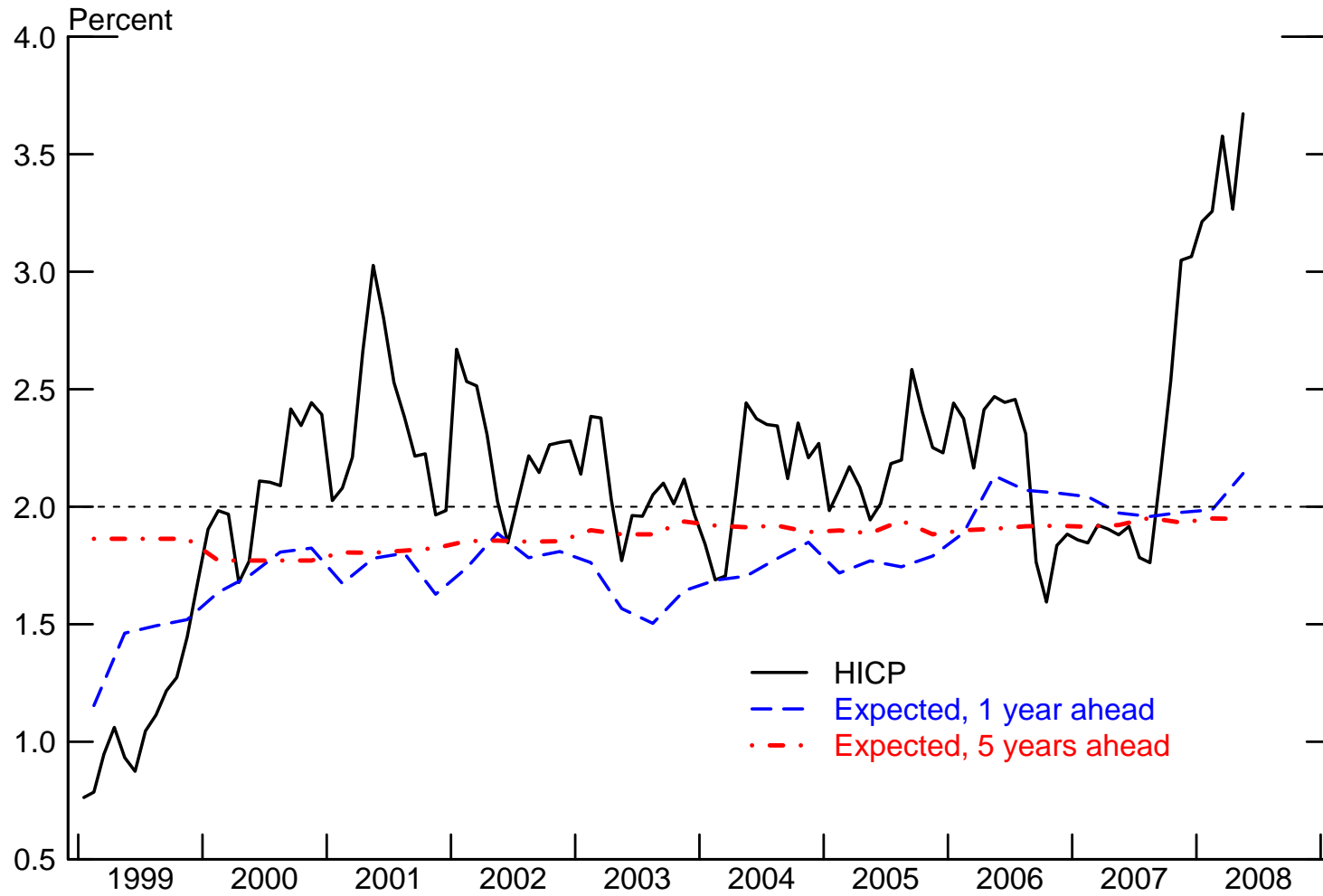


Note: Reproduced from Kim and Orphanides (2007), "The bond market term premium." *BIS Quarterly Review*

Information from Disagreement in Expectations II

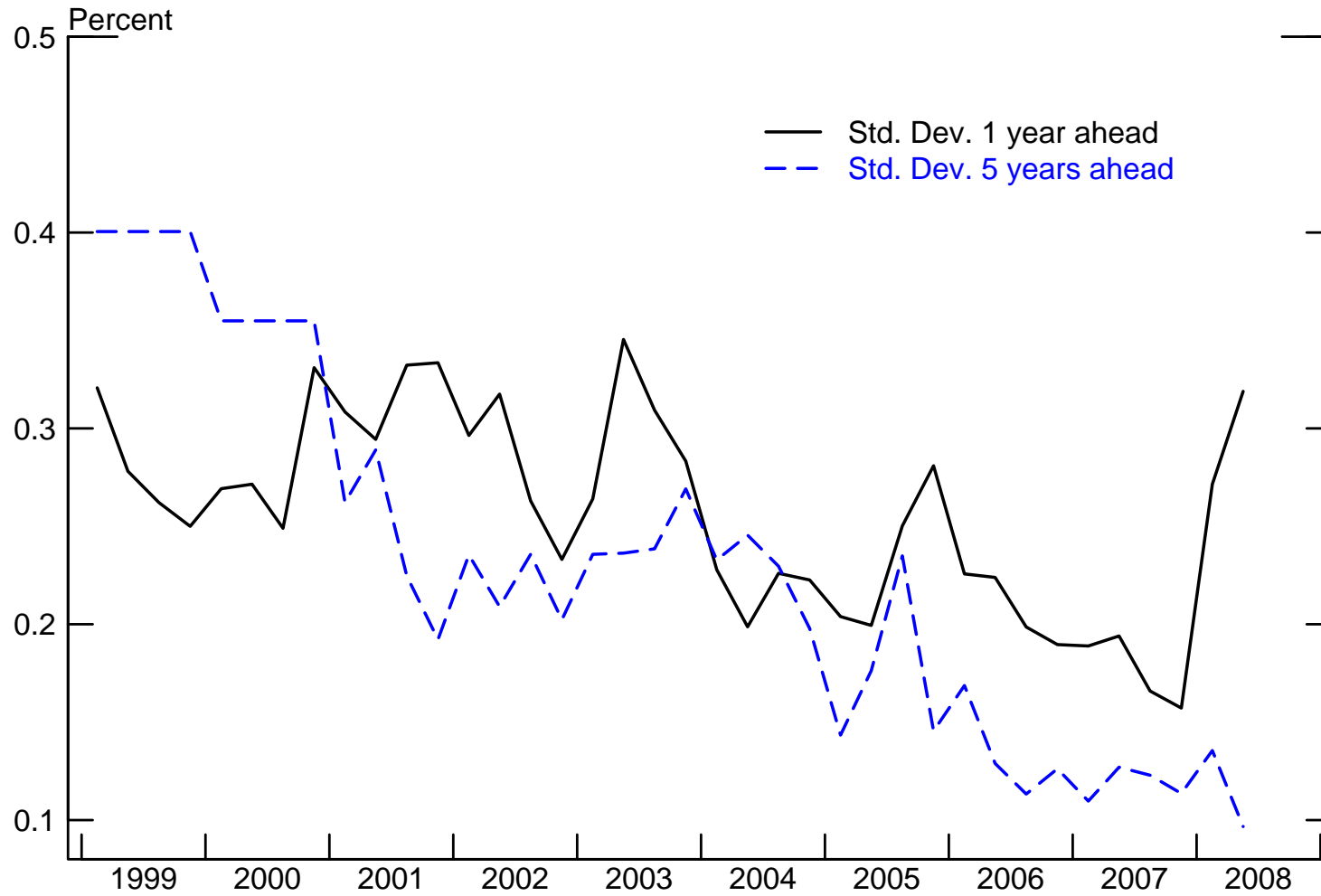
- Survey information on inflation expectations can be a useful input in monitoring how well inflation expectations are anchored.
- One piece of information is how close to the policymaker's definition of price stability expectations are on average
- Another piece of information is how much consensus there is among forecasters about the outlook for inflation.
- Useful illustration available from the ECB survey of professional forecasters for the euro area, available since 1999.

Inflation Expectations in the Euro Area



Source: European Central Bank

Disagreement About Inflation Expectations



Source: European Central Bank

Implications of Refining Models of Expectations Formation

- Implications for inflation dynamics
- Implications for monetary policy
- Implications for policy communication

Implications for Inflation Dynamics

- Learning behavior in the formation of expectations introduces a rich layer of non-linear dynamics in otherwise linear economies.
- It induces time-variation in the formation of expectations and thereby in the structure of the economy even absent fundamental regime changes.
- This complicates empirical modelling (including estimation and forecasting) of fixed-coefficient linear models.

Implications for Monetary Policy

- Learning behavior in the formation of expectations may impart additional persistence to inflation (for a given monetary policy) thereby diminishing policymakers' ability to stabilize business cycle fluctuations in addition to maintaining price stability.
- This provides an explanation why policy should focus primarily on price stability as a means for achieving not only price stability but also overall economic stability over time.
- Learning induces endogenous inflation scares that can be particularly damaging to the economy without forceful policy response.
- This provides an explanation why policymakers monitor inflation expectations so closely and place a premium on maintaining well-anchored inflation expectations.

Implications for Policy Communications

- Recognition of the role of learning in the formation of expectations introduces a role for central bank communications that is absent in traditional models.
- To the extent central bank communications can facilitate the formation of more accurate inflation expectations, it can prove useful for improving overall policy outcomes.
- In this light, clarity regarding the central bank's price stability objective can be particularly helpful.
- But care is needed to respect cognitive limits:
 - More is not always necessarily better
 - Benefits of providing information must be balanced with risk of distraction