



PUEY UNGPHAKORN INSTITUTE FOR ECONOMIC RESEARCH

Current Challenges for Policy Frameworks: Understanding Inflation

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Price and Financial Stability



Note: Inflation is year-on-year changes in the headline Consumer Price Index. The financial cycle is calculated by applying the Christiano-Fitzgerald filter to various financial variables and the output gap is obtained by applying Laubach and William's method to real GDP (Wongwachara et al., 2018).

Inflation as the puzzle

"Too low inflation is puzzling and worrisome"

- Charles Evans, President of the Federal Reserve Bank of Chicago, 2014.

"We don't know what's going on with inflation"

- Stanley Fischer, Vice Chairman of the Federal Reserve, 2017.

"[t]he biggest surprise in the US economy

this year has been inflation"

- Janet Yellen, Chair of the Federal Reserve, 2017.

"Inflation is a little bit below target, and it's kind of a mystery"

- Jerome Powell, Chair of the Federal Reserve, 2018.

Structural Changes in Inflation Dynamics



Note: Inflation is year-on-year changes in the headline consumer price index. Asia 6 is the average of inflation in China, Indonesia, Korea, Malaysia, the Philippines and Singapore. Euro 3 is the average of inflation in France, Germany and the United Kingdom.

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Flattening Phillips Curve



Note: Plotted is the time-varying slope of an estimated Phillips curve with stochastic volatility based on quarter-on-quarter headline CPI inflation and Bank of Thailand output gap estimates.

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Global Factors Increasingly Important



Share of Inflation Variance Explained

Note: Variance decomposition results are based on a dynamic factor analyses applied to the inflation rates of Thailand's top 30 trading partners. Output gap regressions estimates are based on an unobserved components open economy New Keynesian Phillips curve with structural breaks (see Manopimoke, 2018).

Trend-Cycle Analysis



Low for long



Note: Plotted are annualized quarter-on-quarter changes in inflation rates. Trend inflation is calculated from the multivariate unobserved components model with stochastic volatility (see Manopimoke and Limcharoenrat, 2017).

Sectoral Influence Towards Trend





Relative Prices as Key Driver



Correlation between GDP and Inflation Components



Note: Plotted factors obtained from applying a dynamic factor model to inflation series of 225 goods and services. Correlation analyses are based on canonical R-squared measures at business cycle frequencies.

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Note: Percentage change in price levels by category using data from the Ministry of Commerce and CEIC over 2006-2017.

Low Inflation and the Digital Economy

	Online Inflation (%)	Offline Inflation (%)
Refrigerators	-0.18	-1.01
Fans	0.38	-0.28
Microwaves	2.69	0.01
Air conditioners	-3.70	-0.32
Phones	-13.9	-1.08
Televisions	-13.5	-0.51
Washing Machines	0.47	-0.55
Irons	1.93	-0.77
Watches	1.80	-0.91

Note: Based on prices collected by Priceza and the Ministry of Commerce over June 2015 – July 2018.

Issues for Discussion

 How should monetary policy respond to persistent supply-side inflation trends?

2. Has monetary policy become less effective?