



Bank of Finland Bulletin feature articles

Autumn 2026

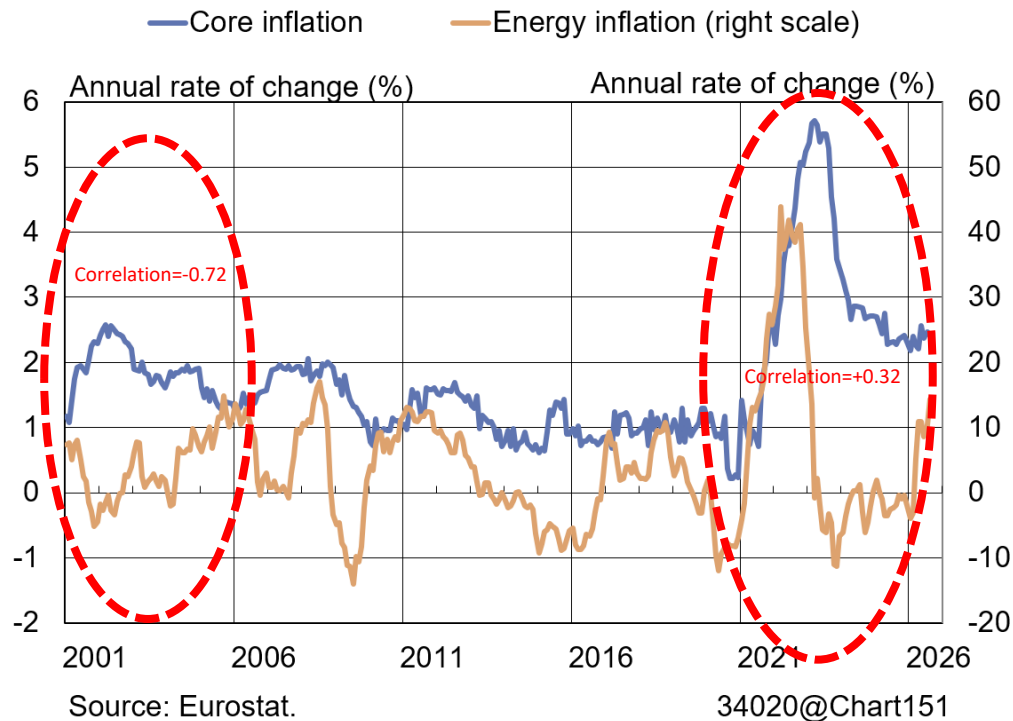
Markku Lehmus
Monetary Policy and Euro Area Economy, Bank of Finland

The effects of energy shocks on inflation vary surprisingly widely over time

Lauri Vilmi

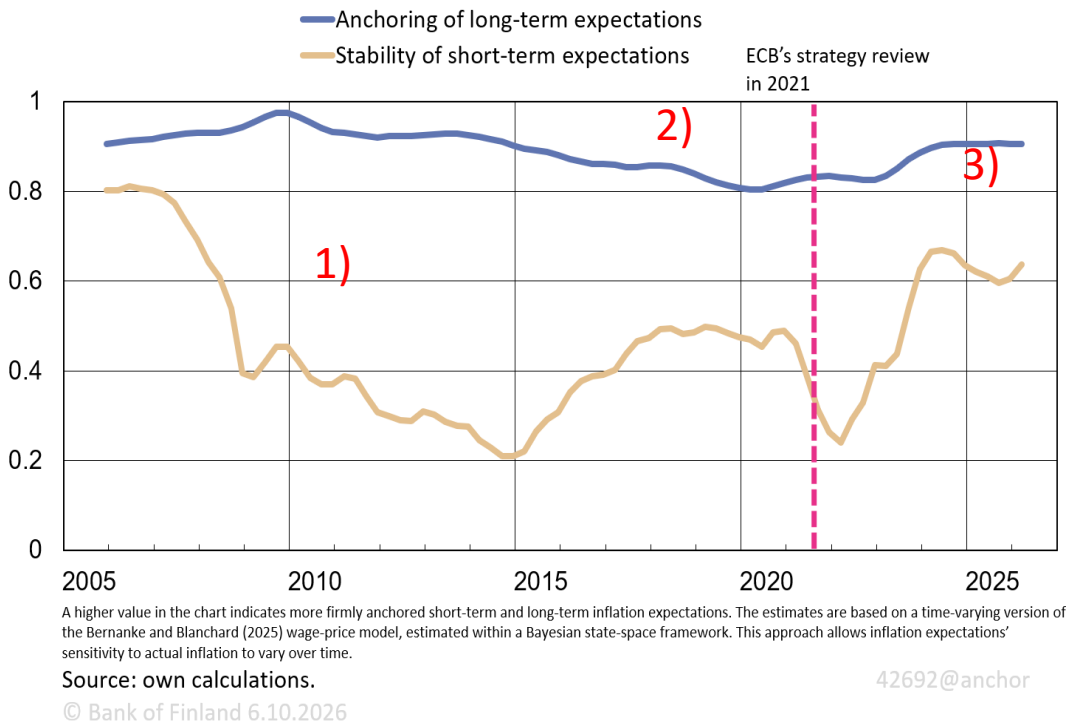


The relationship between inflation and energy inflation has varied over the past 25 years



- Similar increases in energy prices have led to very different deeper price pressures:
 - No positive correlation before the 2007 financial crisis.
 - Clear correlation e.g. during the 2021–2023 energy crisis.
- The effects of the energy shock on medium-term price pressures (second-round effects) seem to fluctuate over time.

Changes in the response of inflation expectations may explain some of the differences in the transmission of energy shocks



- The stability of inflation expectations can be assessed using a variant of the Bernanke and Blanchard (2025) model.
- Observed in the previous decade:
 - 1) Increased response of short-term inflation expectations to energy shocks.
 - 2) Gradually strengthened response of long-term expectations (weakened anchoring).
- Stronger responses of inflation expectations are one reason for the stronger core inflation responses.
- 3) Recently, expectations seem to have stabilised again.

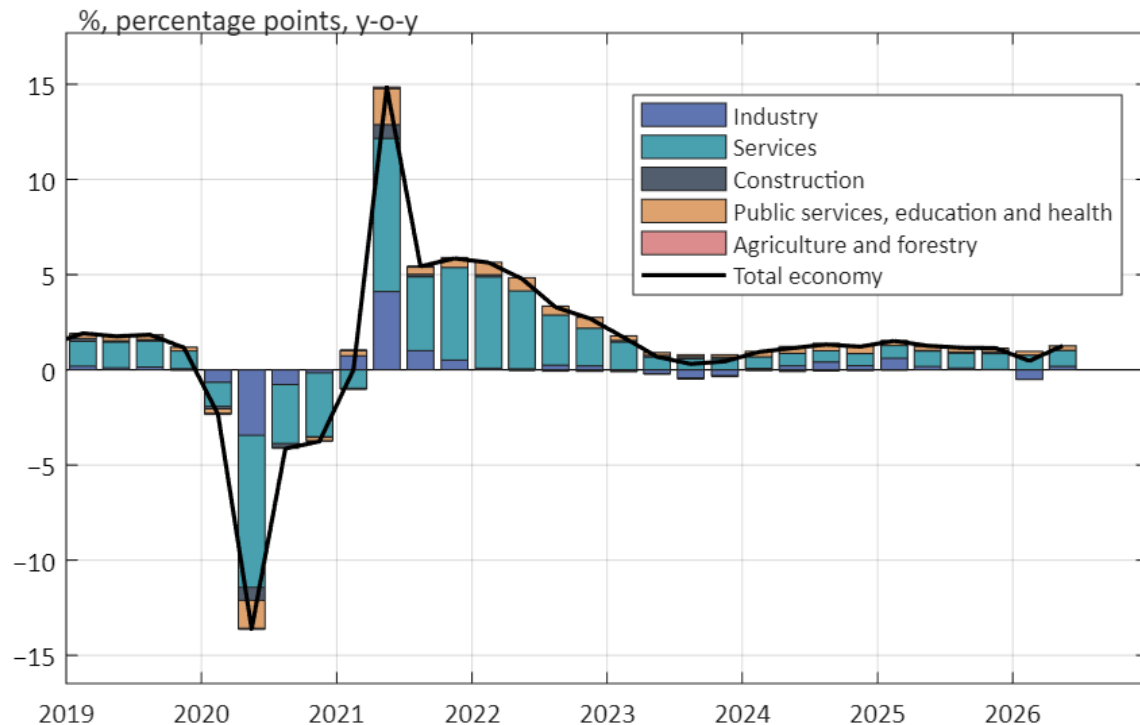
Services have been driving the euro area economy, but productivity growth has rested on only a few industries

Jaakko Nelimarkka and Lauri Vilmi



Most of the economic growth in recent years has occurred in service industries

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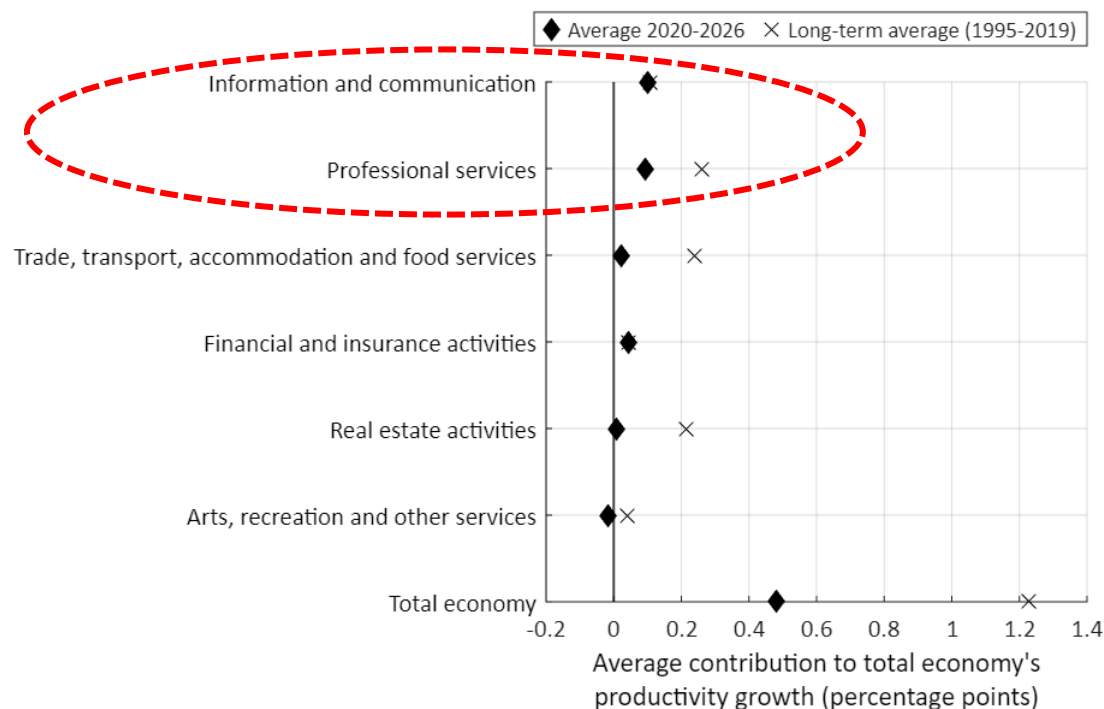


Sources: Eurostat and calculations by the Bank of Finland.
Calculations based on National Accounts data.

- Since 2020, private services have contributed 0.9 percentage points to average annual growth in the euro area.
- This continues the long-term trend towards a more service-based economy.
- The importance of the service industries has increased compared with 1995:
 - Share of value added: 50% → 55%
 - Share of employed: 44% → 52%
 - Share of consumption: 48% → 56%
- Similar trends also in other advanced economies.

Can AI spread productivity growth beyond the information and communications sectors?

Impact of different industries on annual productivity growth
2020–2026



Sources: Eurostat and calculations by the Bank of Finland.

Calculated using industry-level National Accounts data. All categories except 'Total economy' show contributions to average annual productivity growth in the total economy (percentage points).

- Productivity growth in the euro area in recent years has been driven almost entirely by 'high-education' industries:
 - Productivity growth is at a standstill in other service industries and in manufacturing.
- Investment in new digital technologies, such as AI, would boost growth in the information and communication industries in the euro area.

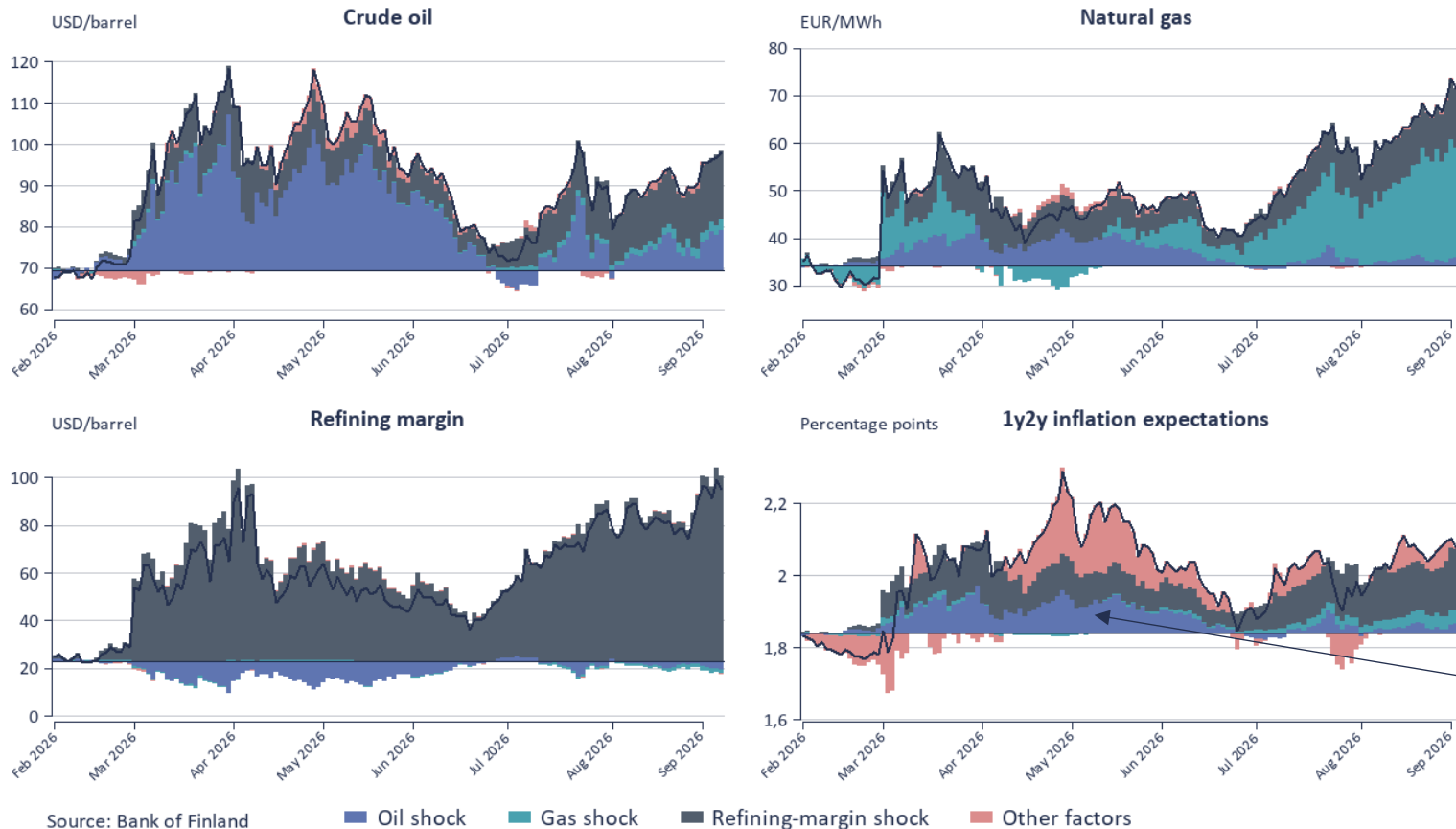
Recent supply disruptions in the energy market have affected euro area inflation expectations

Jetro Anttonen, Antti Jokiluoma and Markku Lehmus



Iran war daily data: recent increase in inflation expectations has been attributable especially to refining-margin shock

Historical decomposition of model variables by economic shocks, 2026



Source: Bank of Finland
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Oil shock Gas shock Refining-margin shock Other factors

- The article analyses energy market disruptions since the start of the Iran war and their effects on inflation expectations.
- The results indicate that inflation expectations during the Iran war have been primarily driven by:

1) the refining-margin shock

2) and the crude oil price shock

Recent supply disruptions in the energy market have affected euro area inflation expectations: key messages

- Energy market disruptions during the Middle East conflict have affected the markets' medium-term inflation expectations.
- The crude oil price shock pushed up inflation expectations in the early stages of the conflict.
- The refining-margin shock has been particularly strong.
 - > The impact of higher refining margins on inflation expectations has increased recently as the conflict has become prolonged.
- The rise in natural gas prices has increased during the autumn, indicating a tightening gas market. The rise has also begun to be reflected in inflation expectations.
- **Despite the magnitude of the energy market disruptions, inflation expectations have remained fairly well anchored -> monetary policy credibility.**

Thank you!