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Is it just a phase? The monetary policy response to supply shocks

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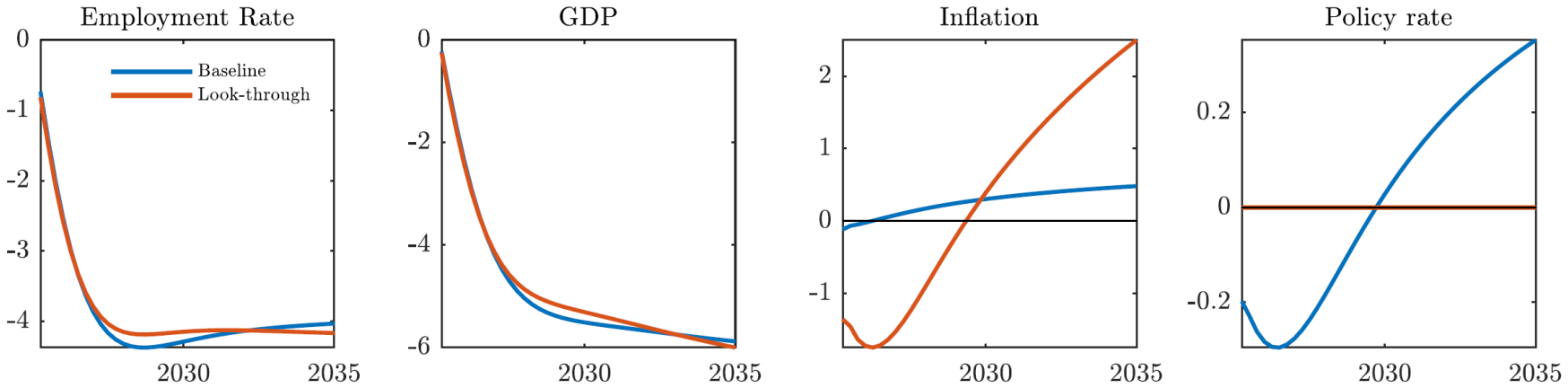
Monetary policy cannot look through *structural* supply shocks

Chart 1: Macroeconomic effects of a persistent decline in labour supply



Source: DNB calculations. *Notes*: Impulse responses to a highly persistent labour disutility shock, calibrated to produce a 4-percentage point decline in employment over the next decade consistent with Eurostats' population projections from March 2023. The model is based on Faccini and Melosi (2022) and calibrated to the euro area. Variables in percentage point deviations from steady state. Inflation and the policy rate are annualized. The looking-through policy is unexpected by agents. Announcing it aggravates the inflation volatility further.

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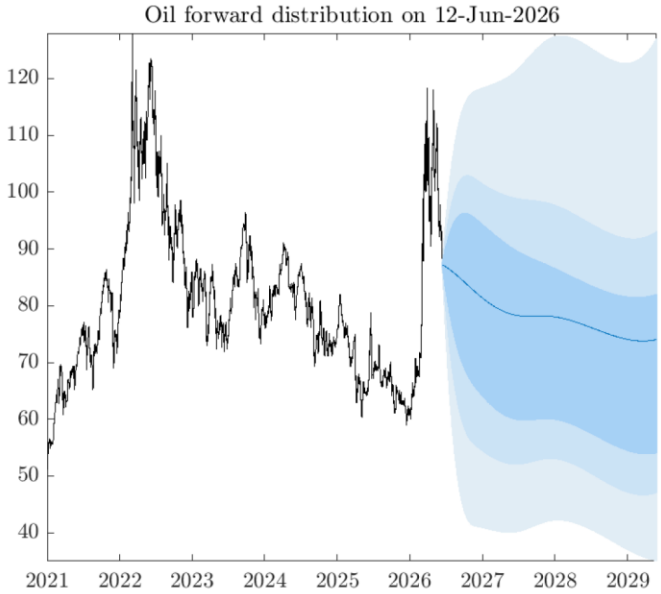
Energy prices expected to normalise, but upside risks remain

Chart 2: Market-implied forward distribution for Brent oil price



Source: Bloomberg and DNB calculations. *Notes*: Solid black line depicts spot Brent oil price in USD/barrel. Shaded areas reflect the interpolated 5th, 15th, 25th, 75th, 85th and 95th percentiles of the option-implied, risk-neutral density of the oil forward prices.

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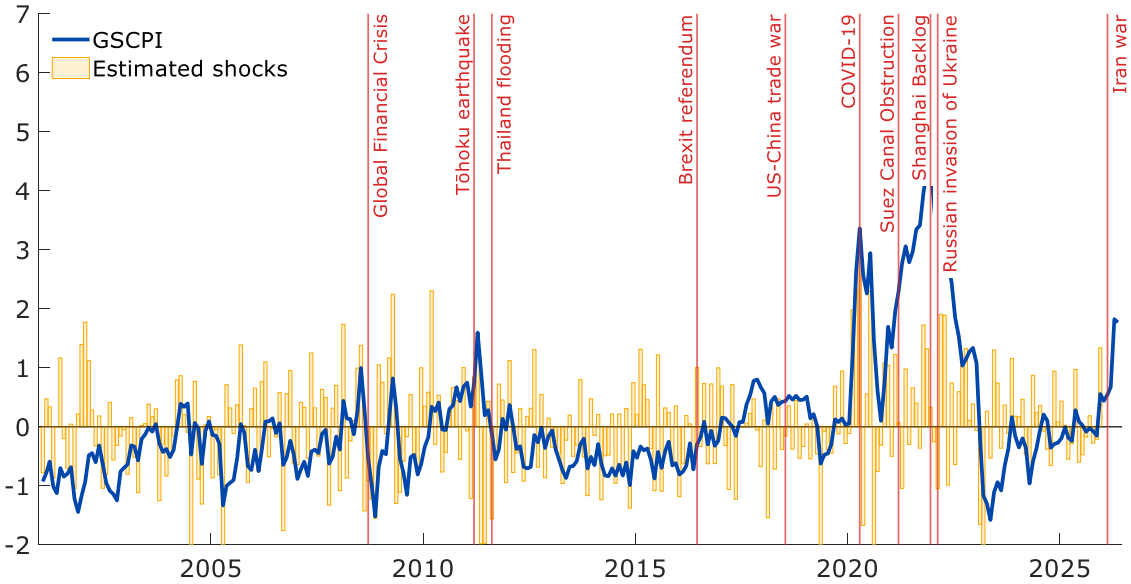
Global supply chain pressures on the rise

Chart 3: Global Supply Chain Pressure Index and estimated shocks in standard deviations from historical mean



Source: New York Fed and DNB calculations. *Notes*: The GSCPI is expressed in standard deviations from the historical mean. Positive values point at increased pressure on supply chains and vice versa. The shocks in yellow are identified using a Bayesian VAR model and a combination of sign and narrative restrictions. For more information, see Ascari et al. (2024).

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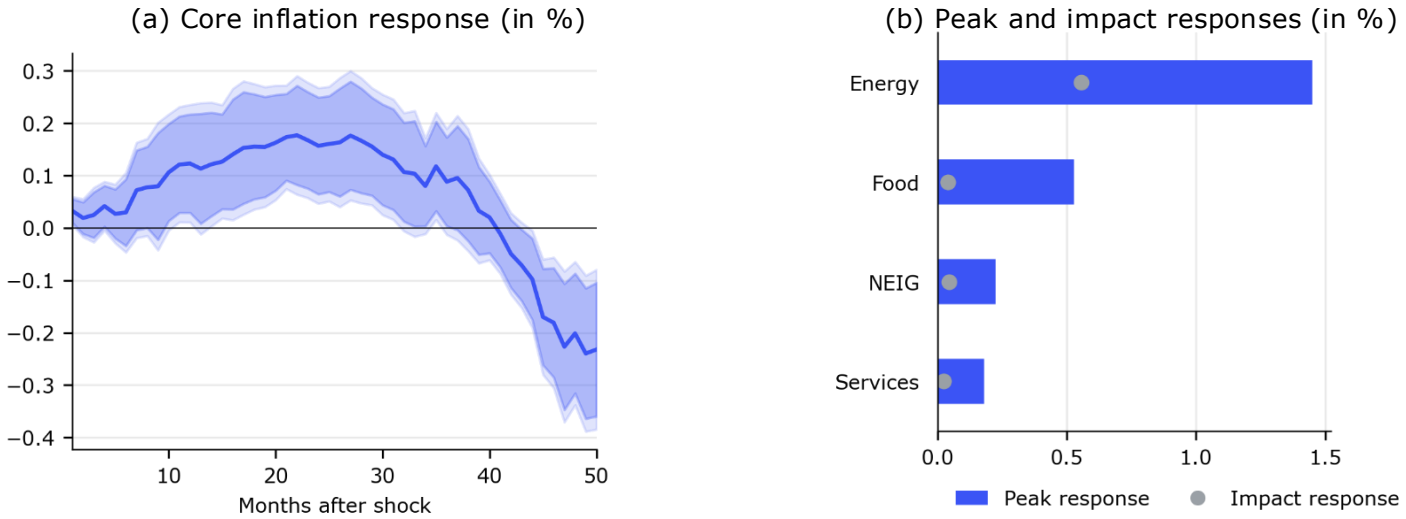
Inflationary effects of supply chain shocks: gradual but persistent

Chart 4: Inflation responses to a global supply chain shock



Source: DNB calculations. *Notes*: Local projections to a one standard deviation global supply chain shock. Left chart depicts the dynamic response of core inflation, measured as the year-on-year growth rate of HICP excluding energy and food. Light and dark blue shaded areas represent the 90% and 95% confidence level. Right chart depicts the impact and peak responses of different HICP sub-categories (also defined as year-on-year growth rates). The impact response is the response occurring in the same month in which the shock occurs. The peak response is the greatest (positive) response over a horizon of 4 years. For details, see Bonam et al. (2026).

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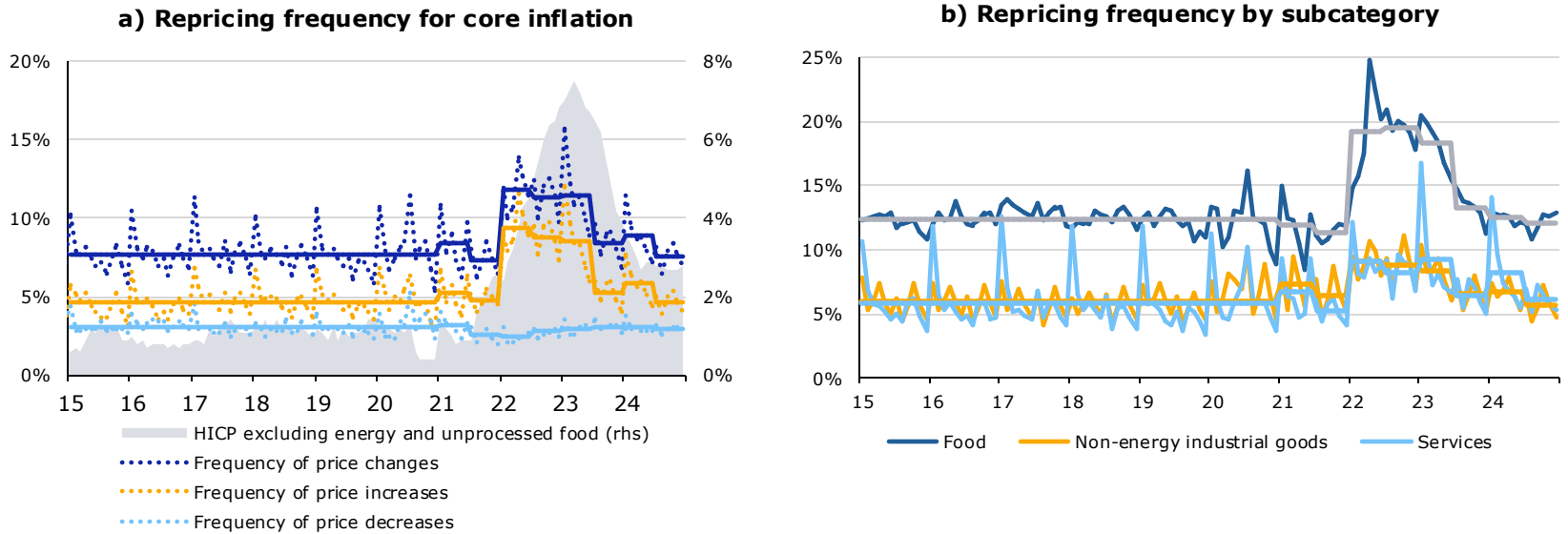
Prices change more often when inflation is high

Chart 5: Frequency of consumer price changes over time



Source: Gautier et al. (2026). *Notes*: Panels a) and b) show the weighted average frequencies of price changes (excluding sales) for core inflation and by aggregate product category. VAT changes in Germany (2020-21) and Spain (2020-23) have been excluded. The solid lines plot the average over the period 2015-20 and half-year averages over the period 2021-24. The latest observations are for December 2024.

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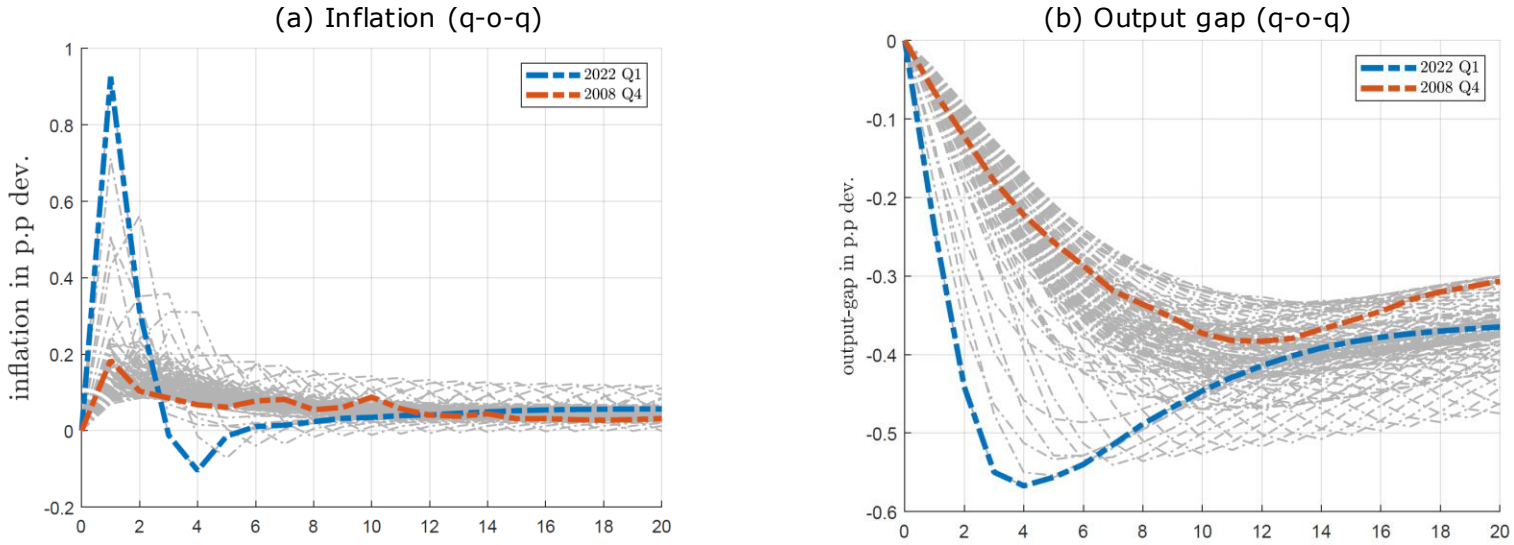
Already high inflation may amplify the effect cost push shocks

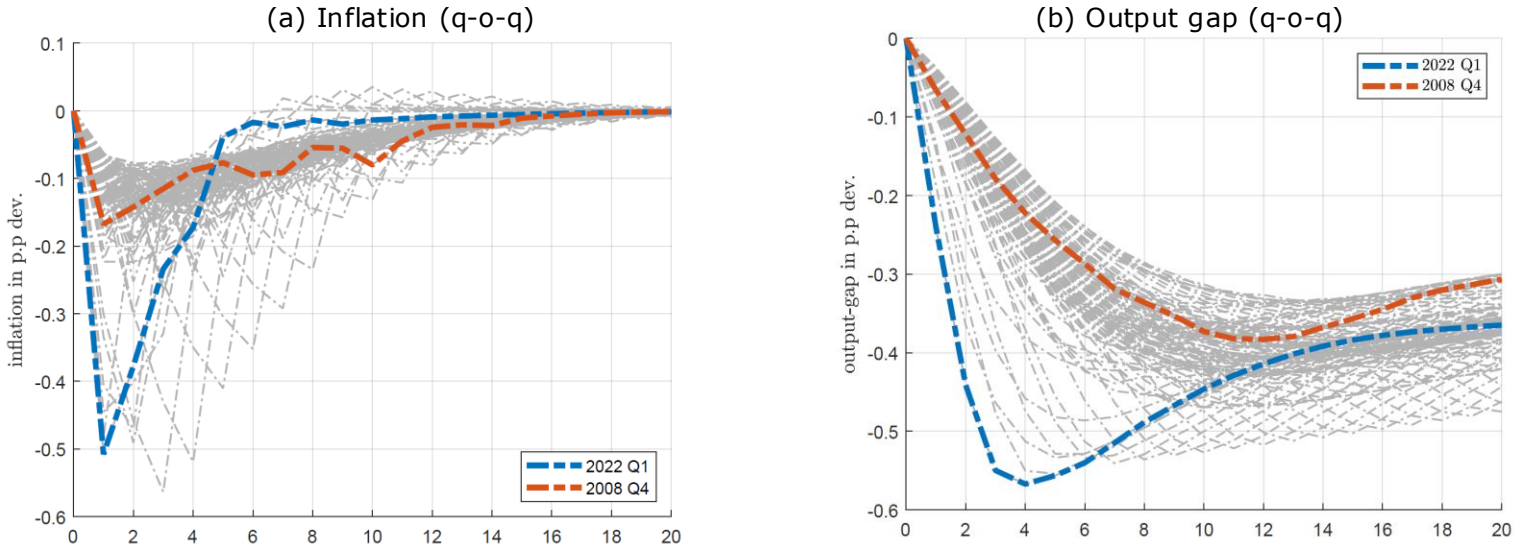
Chart 6: Effects of a cost push shock on inflation and output over time



Source: Ascari et al. (2026). *Notes*: IRFs to an inflationary cost push shock as function of the state. State-dependent IRFs are calculated by comparing the IRFs from all filtered shocks, with the IRFs from those filtered shocks plus an additional contemporaneous cost push shock. This isolates the effect of the cost push shock conditional on the initial state.

But also increases the potency of monetary policy

Chart 7: Effects of an unexpected monetary tightening on inflation and output over time



Source: Ascari et al. (2026). *Notes*: IRFs to a positive 25 basis point monetary policy shock as function of the state. State-dependent IRFs are calculated by comparing the IRFs from all filtered shocks, with the IRFs from those filtered shocks plus an additional contemporaneous monetary policy shock. This isolates the effect of the monetary policy shock conditional on the initial state.

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