

[Estimating the rise in expected inflation from higher energy prices](#)

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Ever since the 1970s, when large oil price shocks came with a sharp and persistent rise in inflation, economists have been studying the connection between these two variables. An important, but still poorly understood, channel is through inflation expectations. An often-repeated fact is that household expectations of inflation and energy prices are strongly correlated. Sometimes, this is used to assert that this channel is strong, and other times to dismiss expectations data through the same “see through principle” that justifies dismissing energy shocks. And yet, in the 1970s, US inflation expectations rose well before the oil price shocks.

This paper examines the link between these two variables, following in the footsteps of a wave of research in empirical macroeconomics that has used cross-regional variation within a currency union to make progress on identification. Taking advantage of the recently-released household survey of expectations in the EA that has many more respondents identified by country and group, and of the large variability in energy prices in the 2020-23 period, we provide new estimates of the impact of energy prices on expectations. We find that a 1% increase in electricity prices raises expected inflation by 0.96–1.30 basis points (bps). When measures of the expectations anchor drift between their average level during 2021 and the one during 2023, the 1% increase in electricity prices raises expected inflation by an additional 0.22–1.61bps.

We use the cross-sectional variation to build new exogenous shocks to energy prices. A one-standard deviation exogenous shock to energy prices raises expected inflation by 35–61 bps, with the impact growing until 10 to 12 months after the shock. Further, the peak of the impulse response to exogenous energy shocks can be twice as high when disagreement in expectations increases more than average versus less than average. That significant boost empirically confirms the importance of keeping inflation expectations anchored suggested by theory.

We apply our estimates to shed light on four related issues. First, we find that very little of the increase in expected inflation in 2021-22 can be attributed to energy shocks. Second, we find that when expectations were most unanchored, in the first half of 2022, a doubling of electricity prices would raise expected inflation by 80-120bps over the following six months, while by the end of our sample, a doubling of electricity prices in the second half of 2023 would raise expected inflation by only 45–60bps by the end of the year. Third, we use US data, with its limited size and cross-sectional variation but a longer time-series sample, to arrive at estimates consistent with the EA ones, but larger, more imprecise, and unstable across specifications. Fourth, we interpret these estimates in light of theories



of state-dependent attention, which suggest a link between unanchoring and markup shocks following an energy shock.