

Inflation analysis at Sveriges Riksbank

SUERF-BIS workshop:
"Gauging (dis)inflation pressures:
Comparing tools and current
findings"

2023-02-10

Vesna Corbo
Sveriges Riksbank

Our standard toolkit

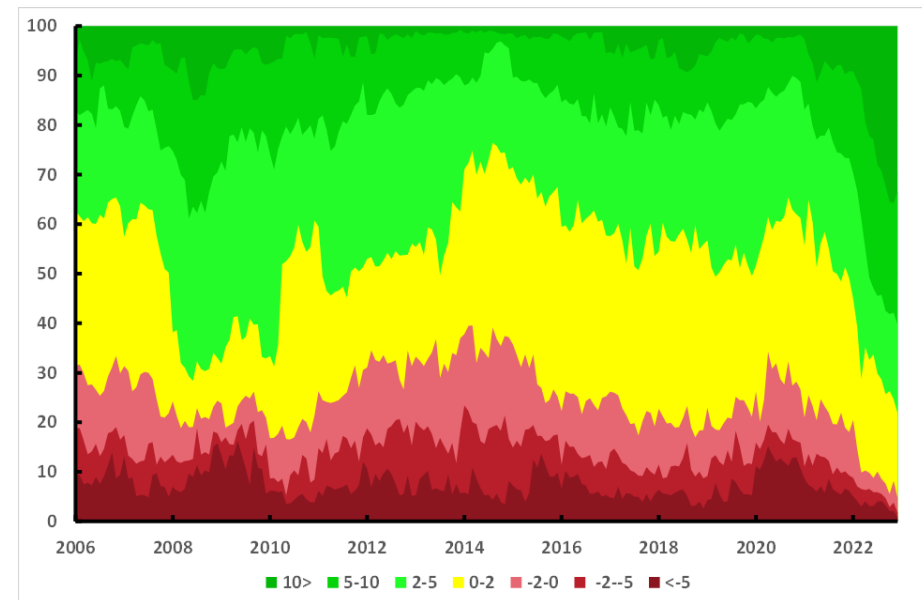
- Short-term forecasting tools
 - Large number of indicator models
 - Analysis of disaggregated and aggregated measures
- Medium term projection tools
 - DSGE model, different (B)VAR models, variety of Phillips curves, futures prices (energy)
 - Analysis of aggregated and disaggregated measures
- Monitoring every sign of potential changes in price- and wage-setting behaviour
 - Inflation expectations
 - The ongoing Swedish wage negotiations very important (normally a 3-year cycle)
 - Understanding price setting behaviour through company interviews, microdata etc.

Graphical representations and other tools

- A variety of different measures of underlying inflation
 - Exclusion-based measures, principal components, trimmed means, trimmed medians
 - Measures evaluated by their ability to predict future inflation, their volatility and bias
- Dispersion measures
 - Share of product prices increasing by more than 2/5/x percent
 - Heatmaps (traditionally used to visualize how broad inflation changes are)

Distribution of price increases across products over time

Percentage shares

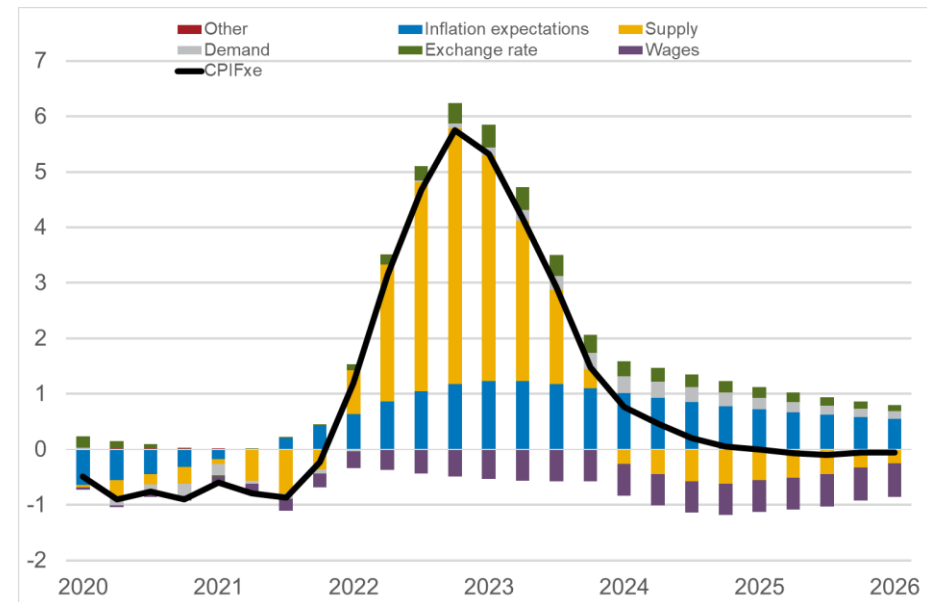


Decompositions: understanding where we come from, to better predict where we are headed

- DSGE model-based historical decompositions
- Also use DSGE model to decompose what is in our projections (and assess the plausibility of that)
- Decomposing Swedish inflation into supply and demand drivers (as in Shapiro (2022))
- Decomposition into products that are directly and indirectly affected by the recent cost increases

DSGE model-based decomposition of CPIFxe inflation

Deviation from target, percentage points



More focus on high-frequency indicators lately

- We now closely monitor data that was previously not considered very informative
 - Global food prices, shipping costs, detailed information on (local) energy prices etc.
- More focus on shorter frequencies, e.g. monthly changes
 - With low and stable inflation, there is little information/lots of noise in those measures
 - With large and rapid inflation increases, the "signal-to-noise ratio" has increased considerably
- New data sources: data scraping, weekly consumer food prices ("matpriskollen") etc.
- Larger weight on producer prices...
- ... and on inflation developments in other countries

Inflation analysis in a small open economy

- Invested in a more unified framework for studying Swedish and foreign (primarily EA) inflation developments
- Traditionally little correlation across countries at business cycle frequency
 - High frequency movements in energy prices more closely correlated, as well as low frequency trends
- Last year's surge in inflation has instead been highly synchronized
 - Understanding similarities and differences in how inflation is measured, energy compensation measures, where we are "in the cycle" compared to other countries, etc. much more relevant now in order to understand what has driven inflation so far and where we are headed

Some work in progress

- Has the pass-through from different costs and the exchange rate changed?
 - Thinking of different ways to analyse the question
 - Extreme surge in inflation over the last year compared to the rest of the sample – parameter estimates change dramatically if data for 2022 is included
 - Assessing reliability of these results not straightforward
- Continued work on understanding cross-country comovements
- Using micro data to deepen our understanding of price-setting behaviour

What do we expect in the coming months?

- Increasing number of indicators point to a rapid drop in inflation
- Not obvious how persistently high price increase could be sustained, given real economic developments... but we have been surprised before
- Large uncertainty, not least regarding energy supply and geopolitical developments
- Looking further down the road, we expect wage developments, fiscal policy, household debt and savings ratios etc. to become more relevant, as short-term supply disturbances and rapid energy price increases wear off
- Crucial to understand whether price-setting behaviour has changed fundamentally