Quickonomics

January 13, 2020

Noise and signal

Retail inflation has pierced past the upper bound of the Reserve Bank of India (RBI)'s 2-6% target.

Exactly a year ago, it was dormant around 2% and until August 2019, humming along 3%.

Along with slowing growth, more-than-desirable inflation raises the sceptre of stagflation (where inflation rises even as output and employment fall)

An unwanted complication in an already slowing economy that central banks dislike.

That's also a big reason why an inflation-targeting Monetary Policy Committee (MPC) stood pat during its December review, going against the street consensus.

But just how valid is this concern?

A closer look shows the current spike in inflation comes from transitory or idiosyncratic factors.

Let's call them 'noise.'

Theoretically, the noise in consumer price index (CPI)-based inflation reflects sharp price movements in certain volatile categories. These happen because of commodity price fluctuations, and weather and supply shocks.

Typically, they don't last long, so are unlikely to become a cause of sustained increase or decrease in inflation.

In India, and generally, too, fuel and food are way more volatile¹ than core inflation². Put another way, they're more prone to making noise.

Remove noise, get the signal

Now, core is what's left if you remove noise.

That, then, is the 'signal', which indicates the underlying inflation in an economy.

Core has a greater weight (51.8%) in the CPI series, than food and fuel (48.2%).

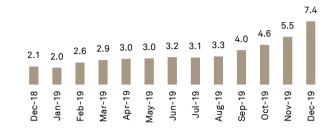
The share of noise in headline inflation has gotten louder, from a miniscule 18.5% in April 2019 to 74.9% in December.

Also, pay attention: Much of this rise is on account of food inflation. The fuel category was witnessing deflation till November and turned marginally positive in December.

In short, food is the current noisemaker.

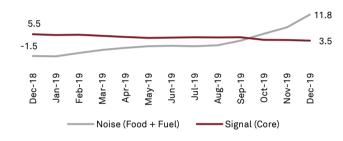
¹Measured by standard deviation (Jan 2015-Dec 2019) ²Core measures inflation sans food and fuel

Headline inflation is getting amplified...



Source: National Statistical Office, CRISIL

..but there's signal, and there's noise



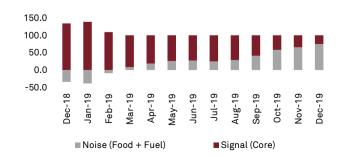
Source: National Statistical Office, CRISIL

Fuel and food (noise) swing more wildly

Standard deviation of inflation



More noise is getting into the headline...



Source: National Statistical Office, CRISIL



Hot veggies

But while food inflation has ascended to double digits, it is not broad-based. It is specifically in vegetables, followed by pulses, which are behind the surge.

If you exclude them, food inflation is still 5%, which is a 33month high.

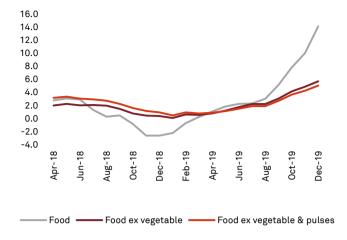
Does that mean the RBI can pass over the noise as just noise?

No. Here's why:

- 1. The RBI targets headline inflation. So it needs to contain that even if the rise is on account of the noise elements - say food, in this case
- 2. As the shocks to food and fuel inflation are generally more perceptible, they move household inflation expectations. RBI data shows that 3-month-ahead expectations have gone up from 8.0% in September 2019 to 9.2% in November, and 1-year-ahead from 8.1% to 9.9%
- 3. Core inflation could get a jolt, too, from a hike in telecom tariffs
- 4. Global food prices were at a five-year high in December (Food and Agriculture Organization)

Quickonomics will take a look at data points and try to explain their significance.

...but it is contained within a few food items



Source: National Statistical Office, CRISIL

If food inflation returns to its trend level of over 5%, then maintaining the 4% headline target will be challenging once the economy – and along with it, core inflation – rebounds.

The fiscal 2021 Union Budget can address this in two ways:

- 1. By pushing supply-side reforms in agriculture that improve efficiency and cut wastage, the noise element in food inflation can be reduced; and,
- 2. By driving reforms in healthcare and education the two sticky parts of core inflation – the signal can be tamed.

Analytical contacts

Dharmakirti Joshi Chief Economist dharmakirti.joshi@crisil.com Adhish Verma Senior Economist adhish.verma@crisil.com

About CRISIL Limited

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better.

It is India's foremost provider of ratings, data, research, analytics and solutions, with a strong track record of growth, culture of innovation and global footprint.

It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers

It is majority owned by S&P Global Inc, a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

CRISIL Research is India's largest independent integrated research house. We provide insights, opinion and analysis on the Indian economy, industry, capital markets and companies. We also conduct training programs to financial sector professionals on a wide array of technical issues. We are India's most credible provider of economy and industry research. Our industry research covers 86 sectors and is known for its rich insights and perspectives. Our analysis is supported by inputs from our large network sources, including industry experts, industry associations and trade channels. We play a key role in India's fixed income markets. We are the largest provider of valuation of fixed income securities to the mutual fund, insurance and banking industries in the country. We are also the sole provider of debt and hybrid indices to India's mutual fund and life insurance industries. We pioneered independent equity research in India, and are today the country's largest independent equity research house. Our defining trait is the ability to convert information and data into expert judgments and forecasts with complete objectivity. We leverage our deep understanding of the macro-economy and our extensive sector coverage to provide unique insights on micro-macro and cross-sectoral linkages. Our talent pool comprises economists, sector experts, company analysts and information management specialists.

CRISIL respects your privacy. We may use your contact information, such as your name, address, and email id to fulfill your request and service your account and to provide you with additional information from CRISIL. For further information on CRISIL's privacy policy please visit www.crisil.com/privacy.



