

Nowcasting Turkish Food Inflation Using Daily Online Prices

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Abstract:

For this study, we have been scraping daily food prices from retail chains' websites since July 2018. Overall, we have collected over 5.9 million data points. Using these food prices, we formed 132 food price subindexes compatible with those of the Turkish Statistical Institute (Turkstat). Then we calculate the primary food inflation rate using Turkstat's consumer price index weights and our food price subindexes. When we compare our food inflation rate with that of Turkstat, it seems that both food price indexes move very closely until February 2020. However, the first Coronavirus restrictions caused our food prices to jump, whereas Turkstat's food prices didn't experience the same spike. As we observe food prices daily, we can also construct a daily food price index and use it to nowcast Turkstat's food inflation before Turkstat announces its own index. Our results show that we can nowcast Turkstat's food inflation rate successfully using a regular bridge equation framework even before the end of the current month. We also show that trimming each day's highest and lowest prices at the subindex level improves our daily food price index's nowcasting performance.

Keywords: Food Inflation, Nowcasting, Online Prices

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