

Abstract (as of 31 July 2018) for :

Disaggregated CPI facts about Philippine Inflation and the Use of Microdata for Macroanalysis
Joselito R. Basilio¹

In the Philippines, more than a fifth of price (CPI at the 3-digit level of disaggregation) changes are price decreases. Almost 70 percent of the time, we can expect a price change. Equivalently, for about 30 percent of the time, price indices record an absence of price change. This roughly implies that average waiting time for a price (or for the CPI) to change is about three to four months. Most of these facts are relatively consistent with the observations for other countries and for other types of price data with greater granularity. There are of course marked differences in frequencies across items and periods.²

Understanding the levels, frequency, magnitude and heterogeneity of disaggregated price changes allows for the testing of the following: covariation of the frequency of price increases (or decreases) with inflation; the seasonality of price changes; and importance of “menu costs” in firms’ price setting decisions³. If menu costs are large and prevalent, then price hikes should more frequently be smaller and temporary. This result is important because even as price changes occur “more broadly (i.e. price changes include both core and noncore items)” than before, second round effects (arising from demand side pressures, monetary policy and supply shocks) should generally be smaller and dissipate more quickly than the initial price changes.

For the extensions of this research, the corresponding results and related questions arising from the empirical exercises should further the interest and need for greater granularity in the analysis of prices and inflation. In order to exploit further the information content of more granular price datasets, big data analytics can play a big role. For instance, the availability and knowledge about supermarket data (scanner price data); “web scraping” of online prices of counterpart CPI items; and access to “raw” price data from the government will be able to answer a couple more questions about price setting patterns and behaviour in the economy.

¹ Department of Economic Research, Bangko Sentral ng Pilipinas; corresponding email: joselitorbasilio@gmail.com or basiliojr@bsp.gov.ph

² Empirical exercises follow the standard procedures in the estimation of the frequency, size and related statistics on price changes, as demonstrated in Klenow, P. and Kryvtsov, O. (2008), “State-dependent or time-dependent pricing; does it matter for recent US inflation?,” *Quarterly Journal of Economics*, August 2008 ; Nakamura, E. and Steinsson, J. (2008), “Five Facts About Prices: A Reevaluation of Menu Cost Models,” *Quarterly Journal of Economics*, November 2008; and Dhyne, E. et al. (2005), “Price Setting in the Euro Area, Some Stylized Facts from Individual Consumer Price Data,” *European Central Bank Working Paper Series No.. 524*, September 2005.

³ Although this last test should also help describe why firms are expected to avoid resetting prices the longer they keep prices unchanged (i.e. hazard functions for price changes are decreasing), the topic would be better discussed in greater detail in another paper.