Sticky CPI

Yiyi

2021-12-12

Contents

Separating point	1
Data	1
Mean	1
Median	2
Sticky CPI index	2
Sticky component weight	2
Following is their total share in CPI, around 200	2
Sticky CPI	3

Separating point

Here I use the Dixon and Tian 570 items frequency data. The monthly frequency of price changes averages 21.78278%. For the median category the time between price change averages 20 months.

If price changes for a particular CPI component occur less often, on average, than every 20 months, we called that component a "sticky-price" good. Goods that change prices more frequently than this we labeled "flexible price" goods.

Data

There are 284 items frequency less than 20 months, from which we form the sticky-price CPI.

The 284 items CPI and weights monthly data from Feb 2006 to Apr 21. The weight are made to add up to 1000.

Mean

The monthly frequency of pricechanges averages

```
#Means (weighted and unweighted)
mean(Dixon_tian$frequency)
```

```
## [1] 21.78278
```

Median

For the median category the time between price change averages

```
##
       item_id
                                                       item_des clear.weight
## 285
        210415
                       Home Killed beef, Braising steak per kg
## 286
        212923 Cook-in sauce jar/can, 350-520g (eg bolognese)
                                                                          0.30
## 287
        630332
                                   Child's soft toy/teddy bear
                                                                          0.92
       frequency rebase.weight null Accumulative weight
## 285
              20
                           0.63
                                  NA
                                                   542.64
## 286
              20
                           0.45
                                  NA
                                                   543.09
## 287
              20
                           1.38
                                  NA
                                                   544.47
```

Sticky CPI index

Please see spreadsheets.

Sticky component weight

Please see spreadsheets.

Following is their total share in CPI, around 200.

```
rowSums(sticky_weight_290)
```

```
##
     [1] 267.24 267.24 267.24 267.24 267.24 267.24 267.24 267.24 267.24 267.24 267.24
    [11] 267.24 267.24 251.29 251.29 251.29 251.29 251.29 251.29 251.29 251.29
    [21] 251.29 251.29 251.29 251.29 239.73 239.73 239.73 239.73 239.73 239.73
    [31] 239.73 239.73 239.73 239.73 239.73 239.73 240.62 240.62 240.62 240.62
##
   [41] 240.62 240.62 240.62 240.62 240.62 240.62 240.62 240.62 232.14 232.14
   [51] 232.14 232.14 232.14 232.14 232.14 232.14 232.14 232.14 232.14 232.14
   [61] 227.34 227.34 227.34 227.34 227.34 227.34 227.34 227.34 227.34 227.34
##
    [71] 227.34 227.34 215.80 215.80 215.80 215.80 215.80 215.80 215.80 215.80
   [81] 215.80 215.80 215.80 215.80 210.37 210.37 210.37 210.37 210.37 210.37
   [91] 210.37 210.37 210.37 210.37 210.37 210.37 202.04 202.04 202.04 202.04
## [101] 202.04 202.04 202.04 202.04 202.04 202.04 202.04 202.04 195.55 195.55
## [111] 195.55 195.55 195.55 195.55 195.55 195.55 195.55 195.55 195.55
## [121] 191.53 191.53 191.53 191.53 191.53 191.53 191.53 191.53 191.53 191.53
## [131] 191.53 191.53 185.63 185.63 185.63 185.63 185.63 185.63 185.63 185.63
## [141] 185.63 185.63 185.63 185.63 183.96 183.96 183.96 183.96 183.96 183.96
## [151] 183.96 183.96 183.96 183.96 183.96 183.96 183.77 183.77 183.77 183.77
```

```
## [161] 183.77 184.59 184.59 184.59 184.59 184.59 184.59 184.59 184.59 175.87 175.87 ## [171] 175.87 175.87 175.87 175.87 175.87 175.87 175.87 175.87 175.87 175.87 175.87 175.87
```

Sticky CPI

