

Underlying inflation indicators

The consumer price index calculated by the Central Statistical Office is the general measure of inflation in accordance with international practices. Price stability-oriented central banks typically determine their inflation target using this indicator.

In the case of the consumer price index, current actual figures may reflect the effects of several factors that are temporary in nature or reflect relative price changes that do not have a material impact on the medium-term inflation outlook. These components of the price index may be disregarded in assessing actual inflationary pressure prevailing in the economy, i.e. in evaluating underlying inflation developments. Central banks calculate various underlying indicators of inflation using official consumer price index data to measure underlying inflation developments.

Measures of underlying inflation in Hungary

The MNB uses several indicators to capture underlying inflation developments. Chart 1 plots alternative measures capturing underlying inflation, in addition to the overall consumer price index: core inflation derived by eliminating the prices of unprocessed food, energy and administered prices; core inflation adjusted for the effects of indirect taxes, the sticky price inflation index¹ and demand-sensitive inflation.² The consumer price index and core inflation are calculated and published by the Central Statistical Office, while the latter three measures are constructed by the MNB based on the detailed data release by the Central Statistical Office and its own estimates.³

In calculating the core inflation excluding the effects of indirect taxes, the core inflation measure published by the CSO is used as a starting point. As a next step, the estimated effects of changes in VAT, excise taxes and other indirect taxes are filtered out from the core measure⁴.

The sticky price index shows the prices of components of the consumer price index which are slow to change, and therefore are good predictors of medium-term developments in headline inflation. In calculating the index, only those groups of products of the consumer price index are used where maximum 15 per cent of the individual, shop level prices tend to change on average monthly. Administered prices have been excluded from the product groups in advance, as they are set by a government authority. The effects of indirect taxes have also been filtered out from the measure.

The demand-sensitive price index excludes processed food prices from tax-adjusted core inflation as well. This may be justified by the fact that price changes of processed food are greatly dependent on typically highly volatile movements in unprocessed food prices. Consequently, the demand-sensitive price index shows the inflation of tradable goods, market services, and alcoholic drinks and tobacco, excluding the effects of indirect taxes.

¹ Reiff, Á. - Várhegyi, J.: Sticky Price Inflation Index, an Alternative Core Inflation Measure, manuscript, 2012.

² The latter two are also adjusted for the effects of indirect taxes.

³ Table 1 shows the product composition of the various inflation measures.

⁴ The estimated effect of indirect taxes is different from the nominal effect calculated by the CSO for the constant tax rate CPI. The difference is in the coverage of the tax measures and the calculation of their effects.

Chart 1 Underlying inflation indicators

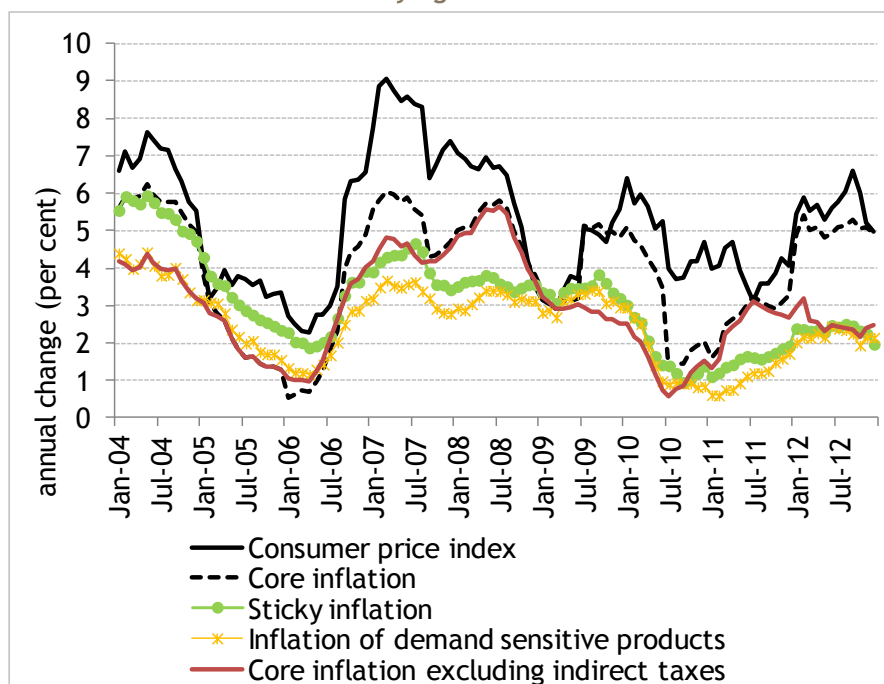


Table 1 Composition of demand-sensitive and sticky price inflation

Demand-sensitive products and services (3 digit CSO code and name)

160	Meals at restaurants not by subscription
161	Meals at canteens by subscription
164	Buffet products
170	Coffee at shops
171	Cup of coffee in catering
172	Tea
173	Non-alcoholic beverages
180	Wine
181	Beer
182	Spirits
190	Tobacco
300	Clothing materials
310	Men's overclothes
315	Men's footwear
316	Men's underwear
320	Women's overclothes
325	Women's footwear
326	Women's underwear
330	Children's overclothes
335	Children's footwear
336	Children's underwear

338	Infant's clothing
340	Clothing accessories
341	Haberdashery
342	Leather goods
400	Living, dining- room furniture
401	Kitchen and other furniture
402	Refrigerators, freezers
403	Washing-machines, spin-dryers
404	Heating and cooking appliances
405	Vacuum cleaners, air-conditioning
410	Passenger cars, new
411	Passenger cars, second-hand
412	Motorcycle
413	Bicycle
420	Radio sets
421	TV sets
422	Videos, tape recorders
424	Computer, cameras, phone etc.
431	Jewellery
510	¹ Household repairing and maintenance goods
520	Furnishing fabrics, carpets, curtains
521	Bed and table linen
522	Cooking utensils, cutlery
523	Parts and accessories of housing
524	Parts and accessories of "do it-yourself"
525	Houshold paper and other products
526	Detergents
530	Toilet articles
540	Tyres, parts and accessories for vehicles
550	Newspapers, periodicals
551	Books
553	School and stationery supplies
554	Sport and camping articles, toys
555	Recording media
560	Flowers, ornamental plants
561	Pets foods
562	Bijou, gifts
601	Repairs clothing and footwear etc.
611	¹ Cost of owner occupied dwellings
612	Maintenance cost at private houses
613	¹ Repairs and maintenance of dwellings
620	Repairs of major household appliances
621	Cleaning, washing
630	Personal care services
640	Repairs, maintenance of vehicles
644	Taxi

647	Transport of goods
660	Repairs of recreational goods
662	Theatres
663	Cinemas
672	Membership fee, donation
680	Recreation with prescription in the country
681	Recreation in the country
682	Recreation abroad
690	Photographic services
531/	² Nonsubsidized pharmaceutical products
610/	³ Non-local government rent
631/	² Health services without medical visit fee
646/	² Air transport
650/	² Mobile telephone and internet
661/	³ Educational services without tuition fee
664/	² Cable television fee
691/	³ Services n.e.c. without burial and administration fees

Sticky price products and services (3 digit CSO code and name)

101	Beef
102	Other meat
103	Edible offals
137	Confectionery and ice-cream
139	Candies, honey
146	Dried vegetables
160	Meals at restaurants not by subscription
161	Meals at canteens by subscription
164	Buffet products
171	Cup of coffee in catering
180	Wine
300	Clothing materials
315	Men's footwear
316	Men's underwear
326	Women's underwear
335	Children's footwear
336	Children's underwear
338	Infant's clothing
340	Clothing accessories
341	Haberdashery
342	Leather goods
400	Living, dining- room furniture
401	Kitchen and other furniture
404	Heating and cooking appliances
405	Vacuum cleaners, air-conditioning
410	Passenger cars, new

411 Passenger cars, second-hand
 412 Motorcycle
 413 Bicycle
 420 Radio sets
 422 Videos, tape recorders
 424 Computer, cameras, phone etc.
 431 Jewellery
 501 Briquettes, coke
 502 Firewood
 510 ¹ Household repairing and maintenance goods
 520 Furnishing fabrics, carpets, curtains
 521 Bed and table linen
 522 Cooking utensils, cutlery
 523 Parts and accessories of housing
 524 Parts and accessories of "do it-yourself"
 525 Household paper and other products
 540 Tyres, parts and accessories for vehicles
 550 Newspapers, periodicals
 551 Books
 553 School and stationery supplies
 554 Sport and camping articles, toys
 555 Recording media
 561 Pets foods
 562 Bijou, gifts
 601 Repairs clothing and footwear etc.
 611 ¹ Cost of owner occupied dwellings
 612 Maintenance cost at private houses
 613 ¹ Repairs and maintenance of dwellings
 620 Repairs of major household appliances
 621 Cleaning, washing
 630 Personal care services
 640 Repairs, maintenance of vehicles
 644 Taxi
 647 Transport of goods
 660 Repairs of recreational goods
 662 Theatres
 663 Cinemas
 672 Membership fee, donation
 680 Recreation with prescription in the country
 682 Recreation abroad
 690 Photographic services
 610/ ³ Non-local government rent
 631/ ² Health services without medical visit fee
 661/ ³ Educational services without tuition fee
 664/ ² Cable television fee
 691/ ³ Services n.e.c. without burial and administration fees

Notes

1 Until 2011 the category of 'Cost of owner occupied dwellings' is calculated from the average of categories 'Household repairing and maintenance goods' and 'Repairs and maintenance of dwellings' by the CSO. From 2012 the CPI does not include this category.

2 The method of the core inflation developed jointly by the CSO and MNB has broken down several items ('Pharmaceutical products', 'Health services', 'Other travels', 'Telephone services, internet' and 'TV fee') from 2009. The underlying inflation indicators of MNB are calculated with this breakdown.

3 The method of the core inflation developed jointly by the CSO and MNB has broken down several items ('Rent', 'Educational services' and 'Services n.e.c.') from 2012. The underlying inflation indicators of MNB are calculated with this breakdown.