

# Changes to the OECD consumer price indices (CPI) series

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The Consumer Price Indices (CPI) series published by the OECD have been the subject of a recent methodological review to ensure and improve their quality and international comparability across the 31 OECD member countries.

The review process mainly consisted in 1) a survey to collect annual expenditure weights for national CPI for the 31 OECD Member countries at detailed level of the COICOP classification, 2) the creation of an annual CPI weights database and 3) the investigation of the consumer price statistics improvement carried out by the National Statistical Offices (NSO) of OECD member countries.

As a result of this process, the CPI series published on June 25<sup>th</sup> 2010 have been revised for the entire period of the time series following two methodological aspects. The first concerns the statistical method used to calculate comparable CPI series, now based on a “chain-linking system”. The second relates to the definition of the series, which was in some cases revised in order to insure better comparability of the CPI series across OECD member countries.

Furthermore, with the aim to provide users with a better understanding of the changes in CPI series, the CPI weights of the six target CPI series defined below are now available for all OECD countries at the following address<sup>1</sup>: [http://stats.oecd.org/Index.aspx?DataSetCode=MEI\\_CPI\\_WEIGHTS](http://stats.oecd.org/Index.aspx?DataSetCode=MEI_CPI_WEIGHTS)

## Background

The Prices Unit of the OECD Statistics Directorate publishes six CPI series in electronic and paper forms (Main Economic Indicators) defined as CPI target indicators with the aim of compiling comparable CPI data across countries, analytically useful, timely and available for as long as possible.

The six CPI target series have been defined following the COICOP Classification:

- 1.CPI All items: COICOP 01-12, Individual consumption expenditure of households;
- 2.CPI Food: COICOP 01, Food and non-alcoholic beverages;
- 3.CPI Energy: COICOP 04.5, Electricity, gas and other fuels & 07.2.2, Fuels and lubricants for personal transport;
- 4.CPI All items less food less energy – COICOP 01-12 less COICOP 01. 04.5 & 07.2.2;
- 5.CPI Housing: COICOP 04.1, Actual rentals for housing, COICOP 04.2, Imputed rentals for housing & COICOP 04.3, Maintenance and repair of the dwelling;
- 6.CPI Services less housing: Services less COICOP 04.1, Actual rentals for housing, COICOP 04.2, Imputed rentals for housing, & 04.3.2, Services for the maintenance and repair of the dwelling.

23 of the 31 member countries provide the OECD with the component series of the CPI target indicators only<sup>2</sup>. In order to publish comparable series and to calculate zone aggregates<sup>3</sup>, the OECD computes CPI target indicators using weights and component series provided by the NSOs. This is particularly frequent for CPI Energy, CPI All items less Food less energy, CPI Housing and CPI Services less housing series.

So far, the calculations have been done using fixed weights structure provided by the NSOs. The weight reference period was aligned with the index national reference period. This method of aggregation was clearly not optimal especially when prices are subject to large fluctuations (especially for energy) and can lead to severe biases, in particular substitution biases.

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1. Except Australia and Korea.
  2. Australia, Austria, Chile, Finland, Iceland, Korea, Turkey and the United States provide directly OECD with the requested CPI target series.
  3. The OECD calculates three area totals (OECD-Total, OECD-Europe and Major Seven Countries) for the four CPI target indicators (All items, Food, Energy, All items less food less energy). Zone totals for CPI are annually chain-linked Laspeyres indices. The weights for each individual link are based on the previous year’s private final consumption expenditure of Households and Non-profit institutions serving households expressed in purchasing power parities (PPP).

## Changes

OECD countries tend to move to an annually updated weighting structure (16 of the 31 OECD member countries) to ensure that the CPI basket is as representative as possible of the consumption patterns of consumers<sup>4</sup>. The other countries update their weighting structure every 2, 3 or 5 years<sup>5</sup>. Within this framework, the OECD has decided to collect annual expenditure weights for national CPI and has changed the way the CPI target series are calculated by using chained linking system<sup>6</sup>.

The second methodological change concerns the definition of the series. A methodological review allowed the OECD to publish CPI series which better match the definitions of CPI target series as defined above.

The changes identified above, and **to be implemented with the May 2010 figures**, will affect a number of series shown in the Main Economic Indicators publication and database. The following tables highlight these series by subject groups, and apply to several countries. Changes will also occur in zone aggregates of the CPIs, especially for CPI Energy and CPI All items less food less energy.

**Table 1: CPI Food, consistent with COICOP 01 - Food and non-alcoholic beverages**

Countries	Series code	Definition following countries' definition	Changes	
			Definition	Calculation
BEL	BEL.CPGDFD02	COICOP 01	New definition	..
CAN	CAN.CPGDFD02	Food purchased from stores	New definition	..
JPN	JPN.CPGDFD02	Food and drink less Alcoholic beverages less Food away from home	..	Chained linking using 5 years weights from January 1996 onwards
NZL	NZL.CPGDFD02	Food groups excluding restaurant meals and ready-to-eat food	..	Chained linking using bi-annual weights from January 2000 onwards

4. The CPI weights are annually updated for France, Hungary, Iceland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom and the United States.

5. CPI weights are updated every 2 years for New Zealand; every 3 years for Denmark; every 4 years for Finland and every 5 years for Austria, Belgium, Canada, Chile, Czech Republic, Germany, Greece, Ireland and Japan.

6. CPI target series are calculated by using annual weights and components series provided by the NSOs. When annual CPI weights are available the chained linked method is apply, otherwise fixed weights (first year available) are used.

**Table 2: CPI Energy, consistent with COICOP 04.5 - Electricity, gas and other fuels & COICOP 07.2.2 - Fuels and lubricants for personal transport**

Countries	Series code	Definition following countries' definition	Changes	
			Definition	Calculation
BEL	BEL.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using 5 years weights from January 1996 onwards
CHE	CHE.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1993 onwards
CZE	CZE.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using bi-annual weights from January 1996 onwards
DEU	DEU.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using 5 years weights from January 1996 onwards
DNK	DNK.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using 3 years weights from January 1996 onwards
FRA	FRA.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1996 onwards
GRC	GRC.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using 5 years weights from January 1995 onwards
HUN	HUN.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1995 onwards
ITA	ITA.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1996 onwards
JPN	JPN.CPGREN01	Fuel & electricity plus Gasoline	..	Chained linking 5 years weights from January 1996 onwards
LUX	LUX.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 2001 onwards
MEX	MEX.CPGREN01	Electricity & fuels plus Gasoline & lubricants	..	Chained linking using weights from January 1996 onwards
NLD	NLD.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1997 onwards
NOR	NOR.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1980 onwards
NZL	NZL.CPGREN01	Household Energy plus Gasoline	..	Chained linking using bi-annual weights from January 2000 onwards
POL	POL.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 2000 onwards
PRT	PRT.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1997 onwards
SVK	SVK.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1998 onwards
SWE	SWE.CPGREN01	COICOP 04.5+07.2.2	..	Chained linking using annual weights from January 1995 onwards

**Table 3: CPI All items less Food less Energy, consistent with COICOP 01-12, COICOP 01 - Food and non-alcoholic beverages & COICOP 04.5 - Electricity, gas and other fuels & COICOP 07.2.2 - Fuels and lubricants for personal transport equipment**

Countries	Series code	Definition following countries' definition	Changes	
			Definition	Calculation
BEL	BEL.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using 5 years weights from January 1996 onwards
CAN	CAN.CPGRLE01	All items less food purchased from stores less Energy	..	Chained linking using 5 years weights from January 1993 onwards
CHE	CHE.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1993 onwards
CZE	CZE.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using bi-annual weights from January 1996 onwards
DEU	DEU.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using 5 years weights from January 1996 onwards
DNK	DNK.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using 3 years weights from January 1996 onwards
FRA	FRA.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1996 onwards
GRC	GRC.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using 5 years weights from January 1995 onwards
HUN	HUN.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1995 onwards
IRL	IRL.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using 5 years weights from January 2002 onwards
ITA	ITA.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1996 onwards
JPN	JPN.CPGRLE01	All items less Food and drink less Alcoholic beverages less Food away from home less Fuel, electricity and Gasoline	..	Chained linking 5 years weights from January 1996 onwards
LUX	LUX.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 2001 onwards
MEX	MEX.CPGRLE01	All items less Food less Electricity and fuels plus Gasoline and lubricants	..	Chained linking using weights from January 1996 onwards
NLD	NLD.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1997 onwards
NOR	NOR.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1980 onwards
NZL	NZL.CPGRLE01	All item less food less household energy and gasoline	..	Chained linking using bi-annual weights from January 2000 onwards
POL	POL.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 2000 onwards
PRT	PRT.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1996 onwards
SVK	SVK.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1998 onwards
SWE	SWE.CPGRLE01	COICOP 01-12 less 01-04.5-07.2.2	..	Chained linking using annual weights from January 1995 onwards

**Table 4: CPI Housing, consistent with COICOP 04.1 - Actual rentals for housing, COICOP 04.2 - Imputed rentals for housing & COICOP 04.3 - Maintenance and repair of the dwelling**

Countries	Series code	Definition following countries' definition	Changes	
			Definition	Calculation
BEL	BEL.CPSEHO05	COICOP 04.1+04.3	..	Chained linking using 5 years weights from January 1996 onwards
CAN	CAN.CPSEHO01	Rented Accommodation plus Owned accommodation	New Definition	Chained linking using 5 years weights from January 1993 onwards
CHE	CHE.CPSEHO01	COICOP 04.1(04.2)+04.3	New Definition	Chained linking using annual weights from January 1993 onwards
DEU	DEU.CPSEHO01	COICOP 04.1(04.2)+04.3	..	Chained linking using 5 years weights from January 1996 onwards
DNK	DNK.CPSEHO01	COICOP 04.1(04.2)+04.3	..	Chained linking using 3 years weights from January 1996 onwards
ESP	ESP.CPSEHO05	COICOP 04.1+04.3	New Definition	Chained linking using annual weights from January 2002 onwards
FRA	FRA.CPSEHO05	COICOP 04.1+04.3	New Definition	Chained linking using annual weights from January 1996 onwards
GBR	GBR.CPSEHO05	COICOP 04.1+04.3	New Definition	Chained linking using annual weights from January 1996 onwards
GRC	GRC.CPSEHO05	COICOP 04.1+04.3	..	Chained linking using 5 years weights from January 1995 onwards
HUN	HUN.CPSEHO01	COICOP 04.1+04.2+04.3	..	Chained linking using annual weights from January 2000 onwards
IRL	IRL.CPSEHO01	COICOP 04.1(04.2)+04.3	..	Chained linking using 5 years weights from January 2002 onwards
ITA	ITA.CPSEHO05	COICOP 04.1+04.3	..	Chained linking using annual weights from January 1996 onwards
LUX	LUX.CPSEHO05	COICOP 04.1+04.3	..	Chained linking using annual weights from January 2001 onwards
MEX	MEX.CPSEHO01	Rentals plus Owner occupied housing plus repairs and maintenance of the dwellings	..	Chained linking using weights from July 2002 onwards
NLD	NLD.CPSEHO01	COICOP 04.1+04.2+04.3	..	Chained linking using annual weights from January 1997 onwards
NOR	NOR.CPSEHO01	COICOP 04.1+04.2+04.3	..	Chained linking using annual weights from January 1980 onwards
NZL	NZL.CPSEHO01	Actual rentals for housing plus Home ownershis plus Property maintenance	New Definition	Chained linking using bi-annual weights from January 2000 onwards
POL	POL.CPSEHO05	COICOP 04.1+04.3	..	Chained linking using annual weights from January 2000 onwards
SVK	SVK.CPSEHO01	COICOP 04.1+04.2+04.3	..	Chained linking using annual weights from January 1998 onwards
SWE	SWE.CPSEHO01	Rented and housing co-operative dwellings including heating plus Imputed rent for owner occupiers	New Definition	Chained linking using annual weights from January 1995 onwards

**Table 5: CPI Services less Housing - Consistent with COICOP 04.1 - Actual rentals for housing, COICOP 04.2 - Imputed rentals for housing & COICOP 04.3.2 - Services for the maintenance and repair of the dwelling**

Countries	Series code	Definition following countries' definition	Changes	
			Definition	Calculation
BEL	BEL.CPSEL01	Services less COICOP 04.1-04.3.2	..	Chained linking using 5 years weights from January 1996 onwards
CAN	CAN.CPSEL01	Services less Rented Accommodation plus Owned accommodation	New Definition	Chained linking using 5 years weights from January 1993 onwards
CHE	CHE.CPSEL01	Services less COICOP 04.1(04.2)-04.3.2	New Definition	Chained linking using annual weights from January 1993 onwards
DNK	DNK.CPSEL01	Services less COICOP 04.1(04.2)-04.3.2	..	Chained linking using 3 years weights from January 2000 onwards
ESP	ESP.CPSEL01	Services less COICOP 04.1-04.3.2	New Definition	Chained linking using annual weights from January 1996 onwards
FRA	FRA.CPSEL01	Services less COICOP 04.1-04.3.2	New Definition	Chained linking using annual weights from January 1996 onwards
GBR	GBR.CPSEL01	Services less COICOP 04.1-04.3.2	New Definition	Chained linking using annual weights from January 1996 onwards
IRL	IRL.CPSEL01	Services less COICOP 04.1(04.2)-04.3.2	..	Chained linking using 5 years weights from January 2002 onwards
ITA	ITA.CPSEL01	Services less COICOP 04.1-04.3.2	..	Chained linking using annual weights from January 1996 onwards
JPN	JPN.CPSEL01	Services less housing services	..	Chained linking 5 years weights from January 1996 onwards
LUX	LUX.CPSEL01	Services less COICOP 04.1-04.3.2	..	Chained linking using annual weights from January 2001 onwards
MEX	MEX.CPSEL01	Services less Rentals plus Owner occupied housing plus repairs and maintenance of the dwellings	..	Chained linking using weights from January 2003 onwards
SVK	SVK.CPSEL01	Services less COICOP 04.1-04.2-04.3.2	..	Chained linking using annual weights from January 1998 onwards