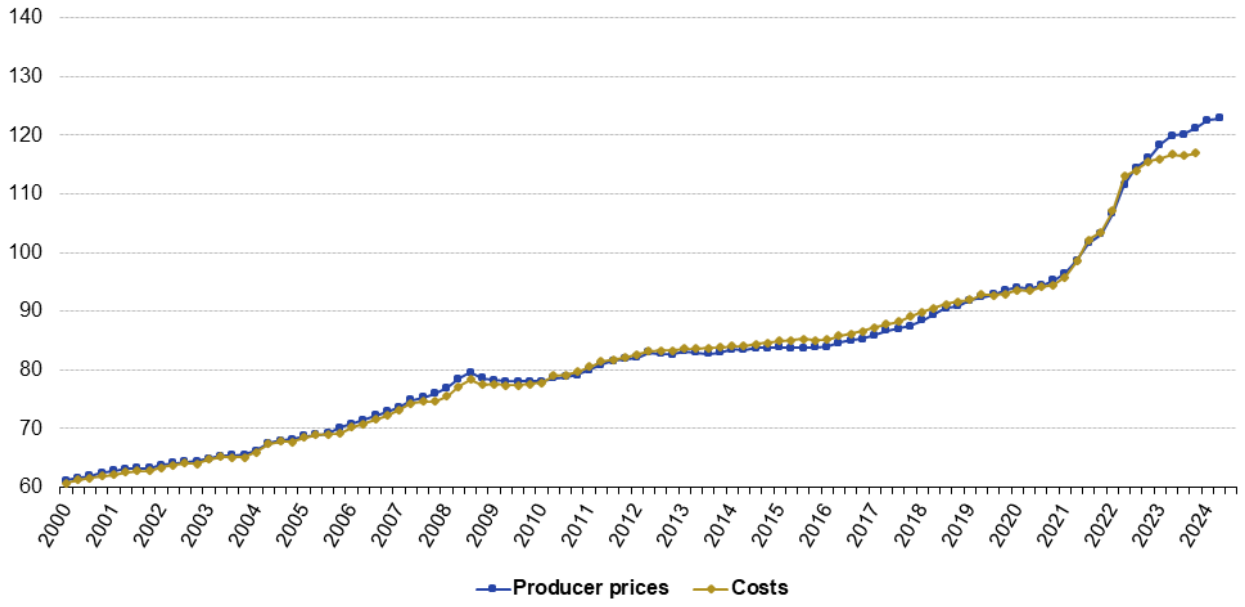
Construction producer price and construction cost indices overview

Statistics Explained

Data extracted in October 2024.
Planned article update: October 2025.

Highlights

Construction producer prices and costs, EU, 2000-2024
(2021=100 unadjusted quarterly data)



Note: y-axis does not start at 0.
Source: Eurostat (online data code: sts_copi_q)

eurostat

EU, Construction producer prices and costs 2000-2024, unadjusted data (2021=100) Source: Eurostat (sts_copi_q)

The construction producer price index (CPPI) is a European Union (EU) business cycle indicator that measures the prices of construction activities (new residential buildings) from the point of view of the building constructor. The construction cost indicator (CCI) shows the trend in the cost for new residential buildings . The current European business statistics regulation (EBS-R) (EC) No 2019/2152 calls for quarterly indices on construction prices for new residential buildings (excluding residences for communities). The construction price indicator may be approximated by an appropriate cost indicator. Some countries produce both price and cost indicators. Some countries also produce monthly indicators on a voluntary basis. Figure 1 shows that the indicators for prices and costs for the EU develop in a very similar way.

Construction costs - development since 2000

Between 2000 and mid-2008, construction producer prices and costs (for residential buildings) increased relatively steadily in the EU (Figure 1). After peaking in the third quarter of 2008 the indices began to fall and reached their lowest level about one year later. In total, however, the decline was not particularly pronounced. In 2010, the price and cost indices started to increase again. About one year later they regained the level they had displayed before the financial and economic crisis. Until 2012, the indices increased further and then stagnated for a relatively long period between 2012 and 2016, when another continuous increase set in.

The construction price and cost indices were not strongly affected by the Covid-19 crisis in the first and second quarters of 2020. In 2021, a dynamic growth set in that was particularly driven by the costs for input materials. The development
continued in 2022. In 2023 and 2024 prices and costs increased further but not as dynamically as in the years before.

Table 1 provides the annual growth rates for the EU, the euro area, and the EU Member States for the period between 2001 and 2023. For the years 2001 to 2008 and the period 2009 to 2019 average annual rates are presented. They correspond with the two phases of price and costs developments described above for the EU. During the Covid-19 pandemic (2020) construction prices did not show a strong reaction. With a few exceptions, the EU countries display a development that is broadly similar to the one for the EU aggregate . In 2021 prices rose rapidly (5.8% in the EU and in the euro area), especially in Romania, Malta, and Hungary. In 2022 this development accelerated. Most countries displayed double digit rates of change. The lowest increases (6.8% in Greece and in the Netherlands) were still rather high in comparison with the rates of previous years. With the exception of Malta (-0.3%) prices continued to increase rapidly in 2023 but not as dramatically as in the year before.

Annual growth rates, construction producer prices for new residential buildings, 2001-2023
(unadjusted data)

	2001-2008	2009-2019	2020	2021	2022	2023
EU	**3.0**	**1.5**	**1.9**	**5.8**	**12.2**	**6.9**
EA-20	**2.9**	**1.5**	**1.9**	**5.8**	**11.9**	**6.9**
Belgium	2.5	1.4	1.7	5.7	13.8	6.5
Bulgaria	:	2.0	2.3	11.4	53.1	16.2
Czechia	3.1	0.9	3.4	5.8	13.1	5.3
Denmark	3.3	1.5	0.7	4.0	10.0	4.5
Germany	1.4	2.4	2.9	7.6	16.3	8.4
Estonia	6.3	0.6	0.4	9.4	18.2	5.2
Ireland	6.7	-0.1	1.2	5.4	10.7	5.1
Greece	2.6	-0.9	-0.1	2.4	6.8	4.0
Spain	4.0	1.0	-0.8	8.5	12.3	2.4
France	4.4	1.1	1.4	4.7	7.9	5.7
Croatia	6.3	-1.2	5.9	9.6	21.8	4.8
Italy	3.4	1.0	0.3	1.9	7.8	2.8
Cyprus	:	:	0.2	7.6	12.0	2.5
Latvia	11.2	1.4	7.3	6.8	13.3	4.7
Lithuania	6.4	0.9	2.0	6.6	18.0	7.2
Luxembourg	2.9	1.8	3.0	6.5	14.1	10.4
Hungary	6.0	4.3	7.1	12.2	24.1	15.2
Malta	3.7	1.3	0.3	12.5	19.1	-0.3
Netherlands	2.5	0.2	4.3	4.0	6.8	14.9
Austria	2.7	2.5	3.1	8.0	15.0	7.5
Poland	2.9	0.6	2.9	4.5	13.3	10.0
Portugal	2.9	1.1	2.1	6.5	12.2	3.8
Romania	19.4	3.9	1.4	12.6	19.0	8.1
Slovenia	6.5	1.3	1.2	10.7	14.4	7.3
Slovakia	5.5	1.5	3.0	3.9	21.3	11.4
Finland	3.1	1.1	-0.3	5.5	8.2	3.0
Sweden	4.4	2.4	-0.1	6.3	12.3	4.2
Norway	4.3	2.9	2.4	8.7	8.8	4.4
Switzerland	1.8	0.3	0.5	2.5	8.4	3.7
Bosnia and Herzegovina	:	:	1.2	5.8	17.6	4.8
Montenegro	11.1	-2.7	-10.8	17.2	32.4	18.7
North Macedonia	:	1.9	1.1	13.1	23.7	9.4
Albania	:	0.4	0.2	1.9	6.4	4.5
Serbia	21.6	3.5	1.5	8.8	15.6	8.4
Türkiye	20.9	9.9	12.9	40.6	99.7	64.0

Special value : not available

Source: Eurostat (online data code: sts_copi_a)

eurostat

Table 1: Annual growth rates, producer price indices for new residential buildings, unadjusted data Source: Eurostat (sts_copi_a)

Source data for tables and graphs

- Construction producer price and cost indices: tables and figures

Data sources

The Regulation (EU) No 2019/2152 of 27 November 2019 (European Business Statistics Regulation) calls for quarterly indices on construction costs for new residential buildings, excluding residences for communities. Data are revised when additional information from national statistical authorities becomes available. In general, no special surveys are undertaken in order to calculate the construction cost index since it is possible to use other indices that are already available from different sources.

Data collected by Member States are transmitted to Eurostat as an index . The weighting for aggregating this index between Member States is generally turnover in building construction and is derived from information obtained from structural business statistics or other statistics.

The base year is usually changed every five years. The data in this article were calculated with 2021 as the base year (=100).

Countries that do not have data on construction prices may use construction costs as an approximation (see above).

The CCI presents the total costs for new buildings. Labour, material and energy costs represent the most important cost components for construction (Figure 2). Fees for architects are not included in the costs.

Context

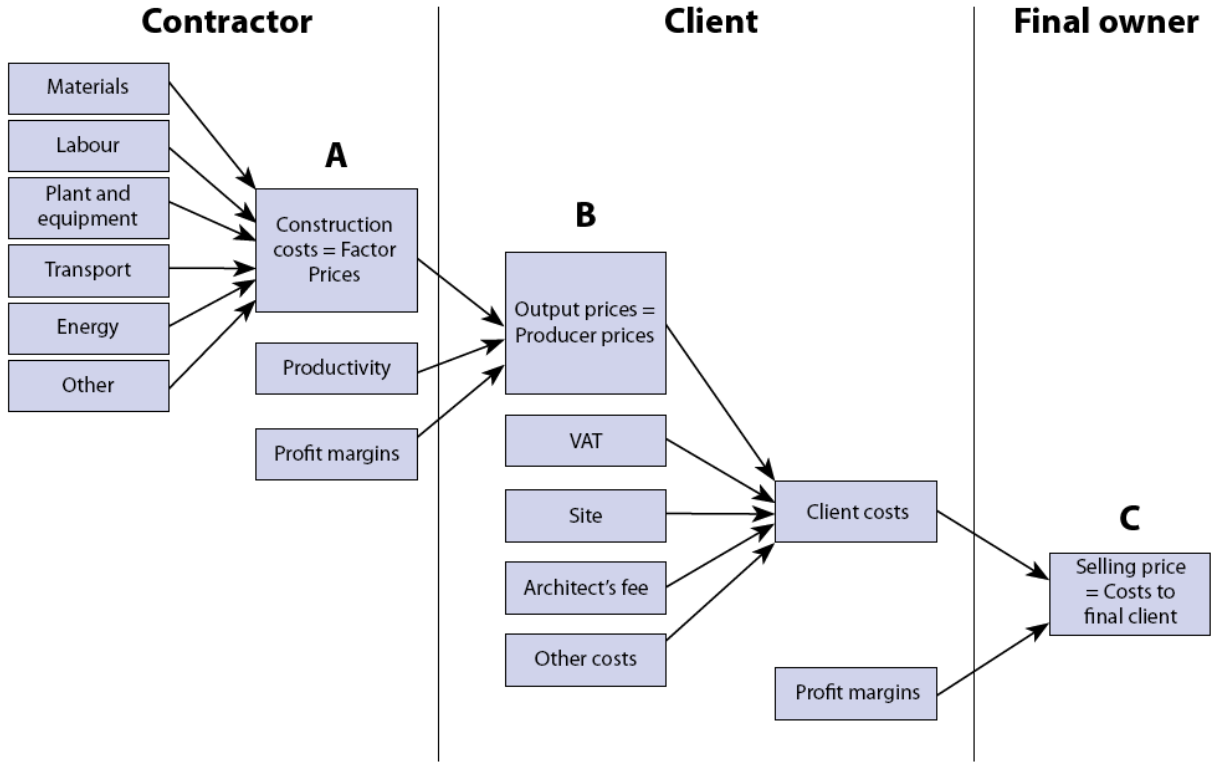


Figure 2: Construction cost index

	Sources
Materials	Price lists, Producer Price Index, Statistical offices of trade chambers, Wholesale prices
Labour	Collective agreements, Labour cost survey
Equipment	Producer Price Index for machinery
Energy	Producer Price Index, Wholesale price index

Table 2: Sources for the construction cost index

The construction price and cost indices provide important additional aspects to the information provided by other construction data. The indices measures developments from the points of views of the building contractors. It reflects the prices that they have to pay for the input factors in the construction process (see A in Figure 2). The cost index therefore has to be distinguished from the producer price index for construction (also called output price index) which affects the cost for the contractors' clients. The cost and producer price indices has to be distinguished from the "selling price index" (item C) which measures changes in the prices paid by the final owner of the output to the client. It includes the price of the land, architect's fees and client's margins.

The construction cost index measures the relationship between the costs, at constant technology and constant input mix, that are associated with the implementation of a fixed amount of construction work. This type of index is different from a producer price index, which measures movements in prices charged to clients of construction work. This is especially true when the price index is calculated from tender prices, which can vary from time to time and place to place depending on the state of competition and market conditions. Producer price indices include changes both in productivity and in the contractor's margins. This corresponds to item B in Figure 2.

The CCI is made up of aggregated price indices for materials, labour costs and other types of costs. The aggregation takes into account the relative weights for the different cost components. It is assumed that neither the construction method nor the building organisation have undergone any change, and consequently the calculations take no account of factors such as productivity improvements, more efficient utilisation of materials, etc. which may influence cost trends. Changes in the profit margins, which also affect a producer price index, are not been taken into account either.

The construction producer price index (CPPI) measures the development of transaction prices for the quarterly construction output. The CPPI is an output index – it measures price changes from the makers of a product. The appropriate price for calculating the PPI is the basic price that excludes VAT and similar deductible taxes which are directly linked to turnover. Price indices are calculated as a weighted average of the relevant products.

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Publications

- A decade and more of monthly construction statistics, Statistics in focus 129/2007

Main tables

- Short-term business statistics (t_sts)

Construction, building and civil engineering (NACE F) (t_sts_cons)

Methodology

- European business statistics methodological manual for compiling the monthly index of production in construction – 2021 edition
- European Business Statistics Manual – 2021 edition
- European business statistics manual for short-term business statistics – 2021 edition
- Short-term business statistics - Metadata in SDMX format (ESMS metadata file — sts_esms)
- More information on Metadata in Eurostat