

H Property price statistics

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The BIS publishes both residential and commercial property price indicators. Households, analysts and policymakers share a keen interest in residential property price developments. Buying a house is often the largest single transaction for a household, and property its largest asset. Fluctuations in house prices have a large impact on households' net wealth, and their propensity to spend. In addition, residential property values underpin much of the mortgage market in advanced economies. This makes house markets a central element in the analysis of trends in aggregate expenditure, the strength of bank balance sheets and the interactions of macroeconomic and financial stability. Moreover, house prices are relevant to statisticians who compile macroeconomic series on households' wealth, or consumer price indices.³⁵ Similarly, commercial property price indicators (CPPIs) have long been seen as a useful tool for monitoring financial stability and macroeconomic developments. They tend to be more cyclical than residential prices – rising further in booms and falling more in busts.

Characteristics of residential property price indicators

Property price data series differ significantly from country to country in international data sets. They may vary in terms of frequency, type of property and vintage, area covered, priced unit, compilation method or seasonal adjustment. The specificities of each country's residential property markets and the absence of binding international standards for property price statistics could explain this variety of dimensions.

The BIS started to publish its detailed residential property price data set under the aegis of the Data Gaps Initiative (DGI) endorsed by the G20. The BIS data set comprises close to 300 residential property price series for 59 countries, including long series for 23 countries. The number of series published for each country varies along a number of dimensions, reflecting two aspects: first, the number of available breakdowns (for example, new and existing dwellings, or dwelling types); and second, the number of distinct compilers. Data are collected with the assistance of national central banks from various public and private sources.

To facilitate cross-country analysis, the BIS also publishes a set of indicators that are intended to be as homogeneous as possible given the prevailing discrepancies in sources and compilation methods. These series, which are published in the *BIS Statistical Bulletin*, contain a single residential property price indicator per country, covering in most cases all types of dwellings – that is, both new and existing dwellings – in the country as a whole. Furthermore, for all but a few countries, the selected indicator is quality- or at least size-adjusted. The selection is based on the *Handbook on Residential Property Prices* and the experience and metadata of central banks. Nominal and real price series are provided, where the real price is calculated as the nominal value deflated by the

³⁵ See eg M Scatigna, R Szemere and K Tsatsaronis, "Residential property price statistics across the globe", *BIS Quarterly Review*, September 2014, pp 61–76.

consumer price index. An analysis of residential property price developments based on these indicators is published on a quarterly basis, and a longer-term view is provided each June in the BIS Quarterly Review.

Commercial property price indicators

The BIS publishes a commercial property price data set covering 14 countries.³⁶ The data differ significantly from country to country, eg in terms of type of property, area covered and compilation method. Owners of commercial properties intend to generate profit by building them for future sale or rental, or by using them as a means of production of market goods and services. CPPIs have long been seen as a useful tool for monitoring financial stability and macroeconomic developments. Yet their availability and international comparability were limited before the Great Financial Crisis. The DGI asked the members of the Inter-Agency Group on Economic and Financial Statistics (IAG) to improve their dissemination and to start methodological work on their compilation. In line with this initiative, the BIS aims to expand substantially the country coverage in the coming years.

³⁶ Due to the limited country coverage and the lack of cross-country comparability of the data, the commercial property price data are not shown in the *Statistical Bulletin*.

Nominal residential property prices

2010 = 100¹

Table H1

	2012	2013	2014	2015	2016	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17
Australia	97.5	104.0	113.4	123.6	130.4	130.7	136.1	139.1	141.8	141.5
Austria	117.1	122.6	126.8	132.1	141.7	141.4	142.1	143.8	148.0	147.9
Belgium	106.3	107.6	107.0	108.8	111.7	113.5	113.1	115.4	114.5	117.9
Brazil	133.1	145.3	154.8	155.2	151.5	151.0	150.2	149.4	148.7	148.0
Bulgaria	92.7	90.7	91.9	94.5	101.1	102.0	104.5	106.5	109.0	111.2
Canada	108.0	111.0	117.0	124.1	139.9	144.0	146.1	153.2	163.4	160.5
Chile	110.9	120.2	127.8	139.5	143.0	140.8	149.3	147.0	141.7	
China	103.4	109.6	112.4	108.1	115.2	116.9	120.7	121.9	124.3	125.9
Colombia	119.3	130.9	141.5	155.1	173.7	176.4	175.9	182.1	186.2	189.8
Croatia	98.6	94.7	93.2	90.5	91.3	91.7	91.2	91.3	94.6	95.2
Cyprus	91.5	85.6	78.1	74.7	73.7	73.6	73.8	74.0	74.4	
Czech Republic	98.6	98.6	101.0	105.0	112.5	113.1	118.5	122.0	125.1	127.1
Denmark	95.7	99.4	103.1	110.3	115.5	117.2	115.4	117.6	121.9	122.2
Estonia	116.3	128.8	146.4	156.5	163.9	167.4	169.3	169.1	169.7	175.4
Finland	105.6	107.0	106.5	106.5	107.1	107.2	107.1	108.2	109.4	108.8
France	105.2	103.2	101.6	100.1	101.2	102.4	102.2	102.7	103.7	107.0
Germany	105.7	109.1	112.5	117.6	124.6	125.9	127.1	128.2	130.6	133.6
Greece	83.5	74.5	68.9	65.5	63.9	63.5	63.6	63.3	63.2	63.1
Hong Kong SAR	136.7	160.6	170.2	196.6	189.6	191.1	202.9	208.7	220.9	224.9
Hungary	93.0	90.6	94.4	106.8	121.1	123.0	124.9	126.8	130.7	133.6
Iceland	112.4	119.2	128.9	139.7	154.6	158.1	164.7	172.5	183.8	190.4
India	151.9	173.9	199.7	226.8	242.0	245.7	251.2	253.1	262.8	263.7
Indonesia	109.4	122.6	131.2	138.5	142.9	143.3	143.8	145.6	147.3	148.0
Ireland	71.7	72.6	84.7	94.4	101.4	103.2	105.8	107.0	109.3	115.3
Israel	114.1	124.5	132.4	140.1	150.6	152.5	153.7	154.4	156.3	158.3
Italy	97.9	92.3	88.3	86.0	85.3	85.5	85.1	85.0	85.2	84.8
Japan	99.2	100.8	102.4	104.9	107.2	107.5	106.8	110.8	109.9	110.2
Korea	108.3	107.8	109.4	113.1	116.1	116.2	116.9	117.1	117.2	117.9
Latvia	113.7	121.5	128.8	124.5	135.0	137.0	138.0	140.8	148.8	150.0
Lithuania	106.4	107.7	114.6	118.8	125.2	127.6	129.9	131.9	136.0	138.6
Luxembourg	108.0	113.4	118.4	124.8	132.3	133.6	135.9	137.0	140.0	140.1
Macedonia FYR	96.8	93.2	92.8	92.9	93.3	92.9	91.3	88.9	89.7	91.6
Malaysia	124.6	138.6	151.7	162.9	174.4	176.8	177.8	181.5	184.5	185.8
Malta	101.6	101.2	103.8	109.8	115.8	118.2	122.0	115.8	118.0	123.1
Mexico	109.2	113.4	118.4	126.2	136.3	140.4	138.1	138.9	144.1	144.6

Nominal residential property prices (cont)

2010 = 100¹

Table H1

	2012	2013	2014	2015	2016	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17
Morocco	102.7	103.6	103.4	105.1	105.7	106.4	109.2	111.2		
Netherlands	91.4	86.0	86.7	89.7	94.5	94.3	97.5	98.4	100.2	104.0
New Zealand	106.0	115.6	123.1	137.7	155.7	160.2	160.9	162.2	164.0	165.4
Norway	115.3	120.0	123.2	130.8	139.9	142.7	142.7	148.0	149.7	146.2
Peru	142.6	166.7	187.9	199.6	211.6	208.5	218.7	206.5	204.3	203.6
Philippines	114.9	127.9	142.8	157.0	172.7	174.7	178.9	184.6	190.3	192.5
Poland	96.6	92.4	93.3	94.7	96.4	97.3	98.3	97.8	99.8	100.8
Portugal	88.4	86.7	90.4	93.1	99.8	100.9	102.1	104.2	107.6	111.4
Romania	83.2	83.0	81.3	83.7	88.6	88.6	90.1	91.2	95.6	94.1
Russia	91.1	94.6	95.8	97.0	91.9	91.3	90.9	89.3	88.8	88.0
Serbia	95.7	90.6	95.8	99.5	110.6	116.9	120.3	116.0	111.7	
Singapore	112.0	115.6	112.2	107.9	104.6	103.8	103.3	102.9	102.8	103.6
Slovakia	95.8	96.7	98.1	103.3	110.2	111.4	113.4	110.6	116.9	119.5
Slovenia	95.6	90.6	84.6	85.3	88.1	88.5	90.1	91.2	95.1	95.5
South Africa	109.0	115.5	123.6	130.9	137.0	137.3	137.1	139.3	141.8	142.3
Spain	78.7	71.5	71.7	74.3	77.8	78.3	78.6	80.4	82.0	83.6
Sweden	103.7	109.4	119.7	135.4	147.1	148.3	150.5	154.3	157.2	159.4
Switzerland	109.1	113.5	115.5	117.7	119.0	119.3	119.8	120.5	120.7	120.3
Thailand	107.7	116.2	122.9	126.0	127.7	128.2	125.8	125.6	126.6	128.5
Turkey	123.1	138.8	158.8	188.0	214.9	219.7	224.1	231.2	238.7	244.5
United Arab Emirates	109.5	130.6	167.2	155.3	149.7	149.9	149.6	148.8	149.2	146.9
United Kingdom	98.9	101.5	109.6	116.2	124.3	126.3	126.1	126.4	129.3	132.4
United States	101.8	111.9	119.1	125.6	132.4	133.1	135.0	137.2	139.3	141.7
<i>Memo:</i>										
<i>Euro area</i>	99.3	97.4	97.8	99.4	102.6	103.5	103.9	104.8	106.2	108.2
<i>Advanced economies</i>	100.9	105.1	109.3	113.8	119.2	120.1	121.1	123.1	124.9	126.6
<i>Emerging market economies</i>	113.2	121.9	129.1	132.7	139.1	140.5	143.0	144.0	146.8	147.9

¹ Annual figures refer to the average of the year.

Real residential property prices

CPI-deflated; 2010 = 100¹

Table H2

	2012	2013	2014	2015	2016	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17
Australia	92.8	96.5	102.7	110.3	114.9	114.8	118.9	121.0	123.1	122.1
Austria	110.7	113.6	115.6	119.3	126.9	126.8	126.2	127.2	129.9	129.8
Belgium	99.9	99.9	99.1	100.1	100.8	102.1	101.6	102.4	101.3	104.2
Brazil	118.4	121.7	122.0	112.2	100.7	99.4	98.2	96.8	95.8	95.0
Bulgaria	86.4	83.7	86.2	88.7	95.6	96.3	98.5	99.0	101.3	103.3
Canada	103.4	105.3	108.8	114.2	126.9	130.2	132.2	137.6	145.9	143.2
Chile	104.2	110.6	112.6	117.8	116.4	114.0	120.5	117.8	113.0	
China	95.6	98.6	99.2	94.1	98.3	99.9	102.5	102.6	105.0	105.9
Colombia	111.8	120.3	126.3	131.9	137.3	138.3	137.9	139.7	141.0	143.5
Croatia	93.3	87.6	86.4	84.3	86.0	86.7	85.4	85.4	88.1	89.1
Cyprus	86.6	81.2	75.2	73.4	73.5	73.2	73.0	73.4	73.4	
Czech Republic	93.6	92.3	94.3	97.7	104.0	104.4	108.9	110.7	113.1	114.4
Denmark	90.9	93.7	96.7	102.9	107.5	109.0	107.4	108.8	112.3	112.0
Estonia	106.6	114.8	130.7	140.4	146.8	149.3	151.0	148.3	147.3	150.8
Finland	99.3	99.1	97.7	97.9	98.1	98.2	97.7	98.7	99.4	99.0
France	101.1	98.3	96.2	94.8	95.7	96.6	96.4	96.6	96.9	100.1
Germany	101.5	103.2	105.5	110.0	116.0	117.0	117.5	118.0	119.9	122.0
Greece	79.6	71.6	67.2	65.0	63.9	63.8	63.2	63.1	62.1	62.8
Hong Kong SAR	124.7	140.5	142.5	160.0	150.5	152.0	160.2	164.5	173.2	175.7
Hungary	84.7	81.1	84.7	95.8	108.3	110.0	110.9	111.6	114.3	116.6
Iceland	102.7	104.9	111.2	118.6	128.9	131.5	136.3	142.8	150.8	155.8
India	128.5	138.6	149.4	161.9	164.5	164.7	168.5	170.3	175.5	171.7
Indonesia	99.9	105.2	105.8	105.0	104.6	104.4	104.0	103.7	104.3	103.9
Ireland	68.8	69.3	80.6	90.1	96.8	98.0	101.3	102.4	103.7	109.3
Israel	108.4	116.5	123.3	131.4	141.9	143.2	144.6	145.6	146.8	149.0
Italy	92.5	86.1	82.2	80.0	79.4	79.4	79.1	78.4	78.3	77.8
Japan	99.5	100.8	99.6	101.2	103.6	104.1	102.8	107.1	105.8	106.1
Korea	101.9	100.1	100.3	103.0	104.7	104.8	104.8	103.8	103.9	103.9
Latvia	106.5	113.9	120.0	115.7	125.4	127.4	126.9	128.0	133.7	135.6
Lithuania	99.1	99.2	105.5	110.3	115.2	118.0	118.7	119.1	120.6	122.7
Luxembourg	101.8	105.0	108.9	114.3	120.8	121.9	123.4	123.8	125.6	125.5
Macedonia FYR	90.2	84.5	84.3	84.6	85.2	84.8	83.5	81.0	80.8	82.4
Malaysia	118.8	129.4	137.3	144.4	151.4	153.3	152.7	152.4	155.1	155.5
Malta	96.6	94.9	97.0	101.5	106.4	108.5	111.0	105.9	106.9	111.6
Mexico	101.4	101.4	101.8	105.7	111.0	114.6	110.8	108.3	111.6	110.9

Real residential property prices (cont)

CPI-deflated; 2010 = 100¹

Table H2

	2012	2013	2014	2015	2016	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17
Morocco	100.4	99.5	98.9	99.0	97.9	98.0	100.6	102.8		
Netherlands	87.2	80.0	79.8	82.2	86.2	85.7	88.7	89.3	90.3	93.2
New Zealand	100.8	108.7	114.4	127.5	143.3	147.2	147.3	147.0	148.6	149.2
Norway	113.1	115.2	116.0	120.4	124.4	126.1	125.5	130.2	130.7	127.3
Peru	133.1	151.3	165.2	169.5	173.5	170.6	177.2	165.3	162.9	161.7
Philippines	106.4	114.9	123.2	133.7	144.4	145.8	147.9	151.1	155.0	155.8
Poland	89.3	84.4	85.1	87.2	89.4	90.4	90.7	89.2	90.8	92.0
Portugal	83.0	81.2	84.9	87.0	92.6	93.6	94.3	96.6	98.0	102.2
Romania	76.2	73.0	70.8	73.2	78.8	79.0	79.9	80.9	84.4	82.7
Russia	79.9	77.8	73.1	64.1	56.7	55.9	55.2	53.5	52.8	52.2
Serbia	80.4	70.5	73.0	74.8	82.2	86.8	88.9	84.2	80.3	
Singapore	101.8	102.6	98.6	95.3	92.8	92.1	91.5	90.8	90.8	91.5
Slovakia	89.0	88.6	89.9	95.0	101.9	103.1	104.7	101.5	106.8	109.0
Slovenia	91.6	85.3	79.5	80.5	83.2	83.3	84.5	85.7	88.2	88.9
South Africa	98.3	98.5	99.3	100.6	99.0	98.3	97.3	97.0	97.7	97.3
Spain	74.5	66.7	67.0	69.8	73.2	73.8	72.9	74.7	75.6	77.4
Sweden	99.8	105.4	115.5	130.7	140.6	141.6	142.9	146.3	147.8	149.1
Switzerland	109.6	114.2	116.3	119.9	121.8	122.0	122.7	123.1	122.5	122.4
Thailand	100.7	106.3	110.3	114.2	115.5	115.8	113.4	113.1	114.0	115.6
Turkey	106.2	111.3	117.0	128.7	136.5	138.9	138.4	136.4	137.4	139.8
United Arab Emirates	107.8	127.2	159.1	142.1	134.5	133.8	133.1	131.8	132.0	130.1
United Kingdom	92.1	92.1	98.1	103.9	110.4	111.9	111.1	110.8	112.1	114.2
United States	96.7	104.7	109.7	115.6	120.2	120.5	121.9	122.9	124.1	125.7
<i>Memo:</i>										
<i>Euro area</i>	94.35	91.33	91.27	92.74	95.50	96.28	95.98	96.77	97.11	99.15
<i>Advanced economies</i>	96.46	99.12	101.70	105.67	109.86	110.52	110.91	112.38	113.21	114.61
<i>Emerging market economies</i>	102.62	106.14	108.14	107.01	108.42	109.21	110.44	110.13	111.92	111.90

¹ Annual figures refer to the average of the year.