



CENTRAL BANK OF CYPRUS

EUROSYSTEM

RESIDENTIAL PROPERTY PRICE INDEX (RPPI)

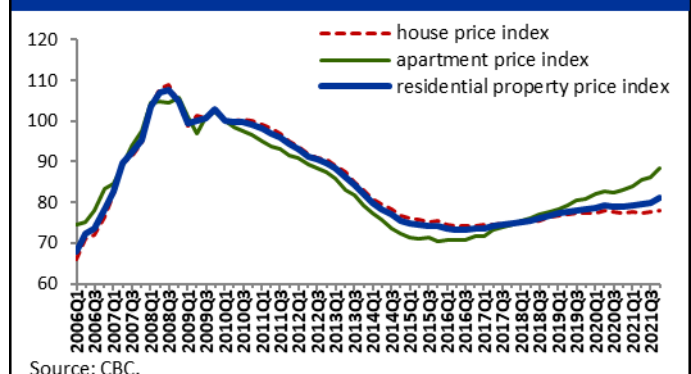
2021 Q4

Continued increase in property prices in 2021Q4, mainly supported by domestic demand.

- The RPPI (apartments and houses)¹ recorded a slightly accelerating upward trend in 2021Q4. Specifically, there was a quarterly increase of 1,3% compared with 0,6% in the 2021Q3, while on an annual basis the index recorded an increase of 2,6% compared with 1,2% in the previous quarter.
- The increase in residential prices stems mainly from the apartments market and, to a lesser extent, from the houses market. In particular, house prices increased on an annual basis by 1%, while on a quarterly basis they recorded an increase of 0,7%, whereas apartment prices increased by 6,3% on an annual basis and by 1,3% on a quarterly basis. Apartment prices recorded an increase in all districts, both on a quarterly and an annual basis.
- The real estate market in 2021Q4 is still relying to a large extent on domestic demand. The transactions in 2021 mainly concerned houses ranging between €100.000 - €300.000, associated, primarily, with first-home purchases by households, as well as purchases by domestic investors for renting purposes. The continuous increase in the cost of construction materials (17,3% annual change in 2021Q4) contributes, in part, to the increase in price levels. Given that the majority of construction materials are imported to Cyprus, the ongoing war in Ukraine and the supply chain problems affecting international trade are expected to push construction costs even higher. In the future, this is expected to adversely affect demand.

Overview	2021 Q1	2021 Q2	2021 Q3	2021 Q4
Residential property price index (2010 Q1=100)	79,3	79,5	80,0	81,0
Quarterly change	0,5%	0,3%	0,6%	1,3%
Annual Change	0,9%	0,2%	1,2%	2,6%
(a) Property price index Houses (2010Q1=100)	77,5	77,3	77,6	78,1
Quarterly change	0,2%	-0,3%	0,3%	0,7%
Annual change	0,2%	-1,1%	-0,3%	1,0%
(b) Property price index apartments (2010Q1=100)	84,1	85,2	86,3	88,3
Quarterly change	1,2%	1,3%	1,3%	2,4%
Annual change	2,5%	3,0%	4,5%	6,3%

CHART 1 House and apartment price indices (2010 Q1 =100)



¹ The CBC RPPI is calculated on the basis of market valuations of real estate prices and a statistical methodology widely used in the international literature. It takes partial account of developments in previous quarters through smoothed regression coefficients (see relevant methodology):

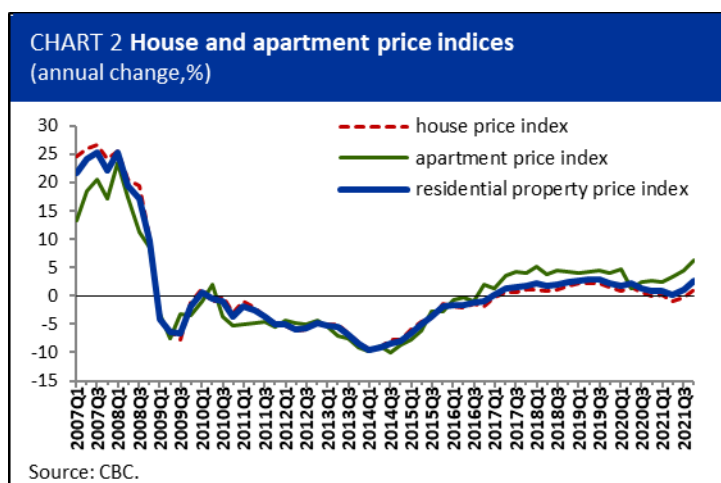
https://www.centralbank.cy/images/media/pdf/Methodology_EN_latest.pdf). Therefore, it is likely that there will be a short lag in capturing turning points in the market with respect to both time and the magnitude of the recovery.

Changes in the residential property price index (RPPI)

The RPPI (houses and apartments) recorded a quarterly increase of 1,3% in 2021Q4, compared with 0,6% in 2021Q3.

The increase in the RPPI is mainly due to the 2,4% increase in apartment prices, compared with the previous quarter, while house prices increased by 0,7% during the same period (**Chart 1, p. 1**).

On an annual basis, RPPI recorded a 2,6% increase in 2021Q4 compared with 1,2% in 2021Q3. During the quarter under review, apartment prices recorded an annual increase of 6,3%, while house prices increased by 1% (**Chart 2**).



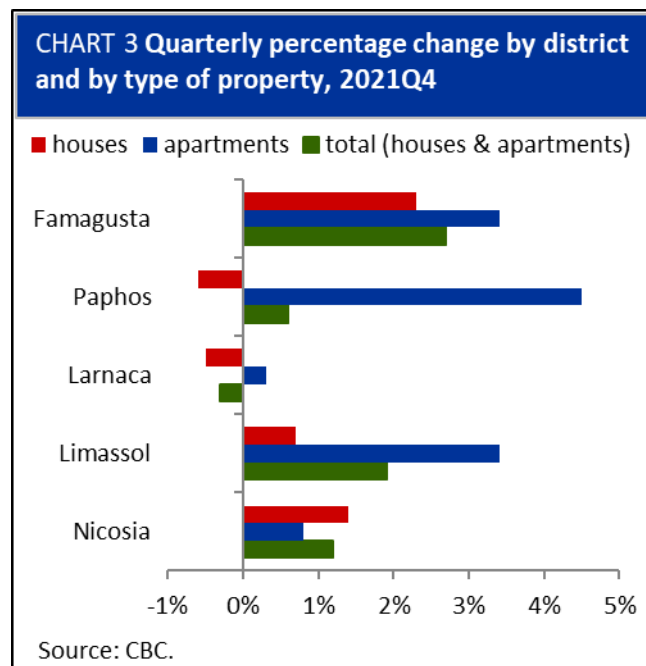
The preference of domestic buyers towards apartments and small houses for both primary residence and investment purposes, continues to support residential prices. It has been observed that young couples wishing to acquire their main residence have taken advantage of both the state aid scheme of interest rate subsidy concerning mortgage loans and the environment of low interest rates on mortgage loans. At the same time, the market is supported by domestic investors who, due to the relatively high rents that prevail in the market, invest in real estate, mainly through the purchase of apartments for rent (buy-to-let).

At the same time, foreign demand gradually recovers from the 2020 drop triggered by the termination of CIP together with the pandemic outbreak. The recovery is attributed to the attraction of investors wishing to relocate their business headquarters (usually high-tech companies) to Cyprus and find offices and residences for their staff, as well as

to investors aiming to obtain a permanent residence permit in Cyprus.

Price changes by district

In 2021Q4, the RPPI recorded increases on a quarterly basis in all districts except Larnaca, in which it recorded a marginal decrease of 0,3%. Specifically, RPPI in Nicosia increased by 1,2%, in Limassol by 1,9%, in Paphos by 0,6% and in Famagusta by 2,7% (**Chart 3**).



As far as annual changes in the price indices of individual districts are concerned, the RPPI recorded increases in all districts. Specifically, in Nicosia residential property prices increased by 0,4%, in Limassol by 5%, in Larnaca by 2,1%, in Paphos by 2% and in Famagusta by 1,4% (**Chart 4, p.3**). On a quarterly basis, house prices increased in all districts, except in Larnaca and Paphos. In particular, in Nicosia, Limassol and Famagusta, house prices increased by 1,4%, 0,7% and 2,3%, respectively. In contrast, house prices in Larnaca and Paphos decreased by 0,5% and 0,6%, respectively. On an annual basis, house prices recorded an increase of 3,1% in Limassol and 1,7% in Larnaca, but fell by 0,7%, 0,8% and 0,3% in Nicosia, Paphos and Famagusta, respectively.

Apartment prices grew in all districts on a quarterly basis. In particular, apartment prices increased by 4,5% in Paphos, by 3,4% in Limassol and Famagusta, by 0,8% in Nicosia, and 0,3% in Larnaca. The rise in apartment prices has been recorded on an annual basis as well in all districts, reaching 9,6% in Paphos, and 7,4%, 6,6%, 3,5% and 2,6% in Famagusta, Limassol, Larnaca and Nicosia, respectively.

The sustained growth in residential property prices is mainly driven by domestic demand, which still consists the largest share in the market. It also reflects, to a lesser extent, the stabilisation of foreign investors' demand and the rising construction costs. Prices of construction materials have experienced substantial increases, as a result of external shocks.

It should be noted that Cyprus' residential property prices have not, in general, exhibited major upward trends such as those observed in other Eurozone countries (with the exception of luxury apartments in Limassol district).

Other market indicators

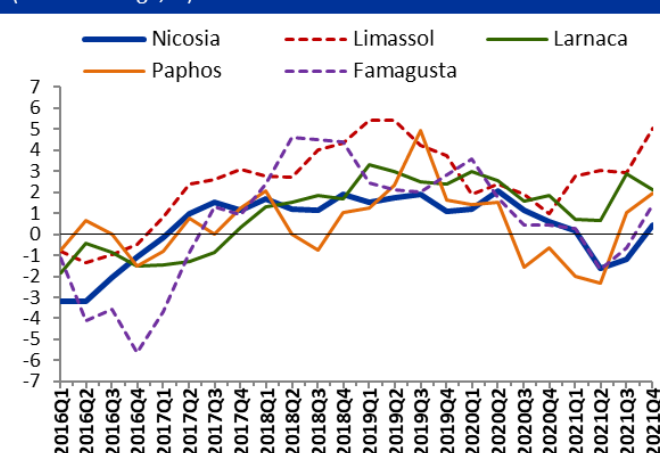
The interest of domestic buyers in real estate properties and the resulting support to the market, as well as the stabilisation of interest expressed by foreign investors, are all reflected in various indicators of the real estate sector and the economy (e.g. sales contracts).

According to data from PriceWaterhouseCoopers' published report, the fact that apartment sales in 2021 amounted to 6,500, while house sales summed to 4,100, demonstrates buyers' preference for the apartment market. Furthermore, the view that demand is now directed towards lower value and smaller houses is reinforced by the fact that house transactions in 2021 were concentrated between €100.000 - €300.000, reaching the highest level in both the value and volume of transactions in the last eight years.

According to the latest data published by the Department of Lands and Surveys (DLS), the number of sale contracts recorded an annual increase of 32,5% in 2021Q4 compared with a 4% decrease recorded over the corresponding period in 2020. In fact, during the quarter under review, the number of real estate transactions exceeded the levels reached in 2019Q4,

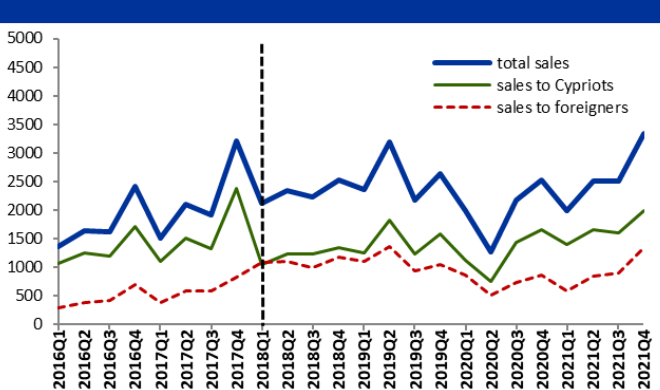
² The term "international headquartering" refers to foreign companies' relocation of management offices to Cyprus, as part

CHART 4 Residential property price indices by district (annual change, %)



Source: CBC.

CHART 5 Number of sales contracts



Source: Department of Lands and Surveys.

*The definition of foreigner has changed since 2018Q1, thus the figures are not comparable with previous periods.

when the real estate sector reached the peak of its recovery, before the outbreak of the pandemic. In addition, in the quarter under review, domestic buyers' demand recorded an increase of 20,1% on an annual basis while foreign investors' demand increased by 56,1% (Chart 5). Both measures promoted by the state, namely "international headquartering²" and the permanent residence permit scheme, seemed to have contributed to the rise of foreign investors' demand. As far as the whole year is concerned, the number of real estate sales contracts recorded an annual increase of 53,8% in 2021 (albeit from a low basis due to the pandemic) compared with the 31,3% decrease over the corresponding period in 2020. In particular, demand from domestic buyers and demand from foreign investors recorded a 55,5% and a 50,9% increase,

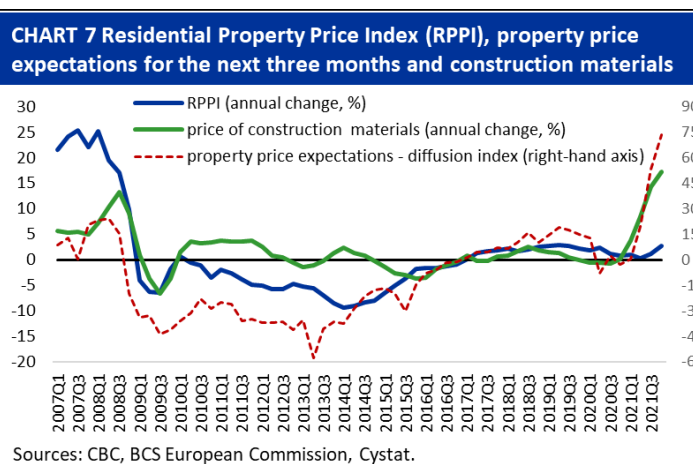
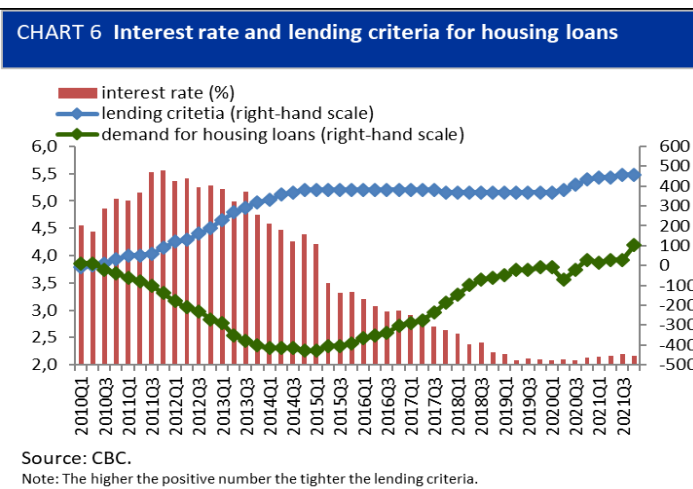
of the state's efforts to attract corporations, mainly high-tech companies (ICT).

respectively. It should be noted that the share of transactions completed by residents of non-European countries has decreased. Specifically, the share of total transactions completed by residents of non-European countries amounted to 18% in 2021 compared with 32% in 2018. The reduction in the amount of the aforementioned transactions reached 36,9% over the period 2018-2021.

According to CBC's *Monetary and Financial Statistics*³, in 2021 pure new housing loans increased by 43,1% and 27,9% compared with 2020 and 2019, respectively (€1.121,2 million in 2021 compared with €783,4 million in 2020 and €876,4 million in 2019). According to the same source, the interest rate on new housing loans⁴ in 2021Q4 averaged at 2,17% compared with 2,13% in 2020Q4 and has remained at historically low levels since data are available (**Chart 6**). The same Chart confirms the aforementioned continued increase in demand for housing loans, as recorded since the October 2021⁵ Bank Lending Survey, which shows that demand for housing loans increased in 2021Q4, despite the fact that lending criteria remained stable at the same strict levels compared with 2021Q3.

According to CYPSTAT, the number of authorised building permits for residential properties, which is a leading indicator for construction activity, recorded an annual increase of 13,1% in 2021 compared with the 3,5% reduction in 2020 and 55,3% increase in 2019. The value per square meter of the licensed residential properties decreased by 7,4% in 2021 compared with 2020, reflecting the market's shift towards building homes for the average income households. On the other hand, the average area per residential property licensed in 2021 declined to 190 sq.m. in relation to 199 sq.m. in 2020 and 222 sq.m. in 2019, showing market preference towards smaller dwellings.

The construction activity is suppressed by the termination of the CIP and the pandemic while the price increases of construction materials are expected to exert additional pressure. Specifically, the price index of construction materials, published by CYPSTAT, recorded increases in the last four quarters (**Chart 7**). Prices of construction materials in 2021Q4 recorded an annual increase of 17,3%, which was the highest since the last quarter of 2008, thus playing an important role in



maintaining the price level in terms of cost and independently from demand dynamics. The rise in the prices of the construction materials is mainly driven by minerals, as reflected by the annual increase of 46,6% and 44,3% in structural steel and iron bars, respectively, while other construction materials, such as wood and bricks record smaller increases (of approximately 10%) according to CYPSTAT. Whether these increases will negatively impact demand, and therefore exert downward pressure on prices, is something that will become more evident in the coming quarters.

According to Business and Consumer Surveys (BCS) in 2021Q4, the real estate sector continues to register increases (**Chart 7**). Property price expectations for the next three months averaged 73,23 in 2021Q4, compared with -2,77 in 2020Q4, which is the highest level recorded since 2002 when data are available. Respectively high expectations for increases in property prices were observed only in 2004 during the period of

³ <https://www.centralbank.cy/el/publications/monetary-and-financial-statistic>

⁴ Floating rate and up to one year fixed.

⁵ <https://www.centralbank.cy/en/publications/surveys/bank-lending-survey>

Cyprus' accession to the European Union. In addition, the index of employment expectations in the construction sector for the next three months increased to 2,07, sustaining the upward trend that begun in previous quarters after negative entries over the preceding quarters. It should be noted, however, that the above mentioned expectations reflect the market situation before the outbreak of the war in Ukraine.

In conclusion, the residential property price index in Cyprus continues to record an upward trend in 2021Q4, despite the adverse developments due to the pandemic. In part, price increases are supported by rising construction costs, as evidenced in recent quarters, a situation that requires close monitoring in order to identify any impact on demand. Any implications from the war in Ukraine on RPPI are expected to become evident in the medium term.

TABLE 1 Residential property price indices by type and by district

(annual and quarterly data, 2010Q1 = 100)

Year*	Quarter	<u>Residences by type</u>			<u>Residences by district</u>					Residential property price index
		Apartments	Houses	N/sia	L/sol	L/ca	Paphos	F/sta		
2010	-	98,2	100,1	99,9	99,0	99,5	100,3	99,5	99,6	
2011	-	93,3	97,2	98,6	94,4	94,9	95,4	94,4	96,3	
2012	-	89,0	91,8	94,4	90,8	87,3	87,5	87,9	91,2	
2013	-	82,5	86,1	87,8	86,5	79,5	83,3	80,0	85,2	
2014	-	74,7	78,8	80,3	79,5	72,1	77,4	71,1	77,8	
2015	-	71,0	75,6	76,0	76,4	68,7	75,3	70,1	74,4	
2016	-	71,0	74,3	74,2	75,7	67,9	75,1	67,6	73,4	
2017	-	73,4	74,6	74,9	77,4	67,4	75,3	67,2	74,3	
2018	-	76,6	75,6	76,0	80,1	68,5	75,7	69,9	75,8	
2019	-	78,8	77,1	77,2	83,8	70,4	77,6	71,5	77,8	
2020	-	82,6	77,6	78,1	85,3	72,0	77,8	72,6	79,0	
2021	-	85,9	77,6	77,7	88,2	73,1	77,5	72,5	80,0	

Source: CBC.

*The annual index is calculated as the average of the four quarters of each year.

TABLE 2 Apartment and house price indices by district

(annual and quarterly, 2010Q1 = 100)

Year*	Quarter	<u>Apartments</u>					<u>Houses</u>				
		N/sia	L/sol	L/ca	Paphos	F/sta	N/sia	L/sol	L/ca	Paphos	F/sta
2010	-	99,3	97,8	97,1	97,0	97,1	100,1	99,4	100,4	101,4	100,1
2011	-	99,0	91,8	88,7	82,7	83,1	98,5	95,1	96,8	99,1	97,2
2012	-	95,2	88,3	82,2	76,9	76,8	94,1	91,5	88,7	90,7	89,7
2013	-	89,0	82,8	71,7	71,7	71,8	87,3	87,5	82,1	86,7	81,4
2014	-	81,5	74,9	63,8	67,2	64,1	79,8	81,1	74,7	80,7	72,3
2015	-	76,6	74,0	61,0	64,2	60,3	75,8	77,2	71,9	79,3	71,8
2016	-	75,0	74,6	61,3	66,0	57,8	73,9	76,1	70,8	78,9	69,4
2017	-	77,0	78,6	61,8	64,2	57,4	73,9	76,9	69,5	80,2	69,4
2018	-	78,9	84,6	63,5	67,6	59,5	74,6	78,4	70,1	79,8	72,4
2019	-	80,3	90,8	69,0	69,5	61,7	75,9	81,3	70,9	81,3	73,8
2020	-	82,2	96,3	71,9	70,0	62,0	76,4	81,5	72,0	80,9	75,7
2021	-	84,0	100,2	75,7	71,7	65,2	74,9	83,6	72,4	79,7	74,5

Source: CBC.

*The annual index is calculated as the average of the four quarters of each year.

Table 3 Residential property price indices by type and by district
(y-o-y, %)

Year*	Quarter	<u>Residences by type</u>		<u>Residences by district</u>					Residential property price index
		Apartments	Houses	N/sia	L/sol	L/ca	Paphos	F/sta	
2010	-	-2,0	-0,8	-0,6	2,1	-1,8	-2,6	-4,7	-1,1
2011	-	-5,0	-2,9	-1,3	-4,6	-4,6	-4,9	-5,1	-3,3
2012	-	-4,6	-5,6	-4,3	-3,8	-8,1	-8,2	-6,9	-5,3
2013	-	-7,3	-6,2	-7,0	-4,8	-8,9	-4,8	-8,9	-6,5
2014	-	-9,4	-8,5	-8,5	-8,0	-9,3	-7,0	-11,2	-8,8
2015	-	-4,9	-4,0	-5,3	-4,0	-4,6	-2,7	-1,4	-4,3
2016	-	-0,1	-1,8	-2,4	-0,9	-1,2	-0,4	-3,6	-1,4
2017	-	3,3	0,5	0,9	2,2	-0,8	0,3	-0,6	1,2
2018	-	4,4	1,2	1,5	3,5	1,6	0,6	4,0	2,1
2019	-	4,2	2,0	1,6	4,7	2,8	2,5	2,3	2,6
2020	-	3,5	0,7	1,2	1,8	2,2	0,2	1,5	1,5
2021	-	4,1	0,0	-0,5	3,4	1,6	-0,4	-0,2	1,2

Source: CBC.

*The annual index is calculated as the average of the four quarters of each year.

Table 4 Apartment and house price indices by district
(q-o-q, %)

Year	Quarter	<u>Apartments</u>					<u>Houses</u>				
		N/sia	L/sol	L/ca	Paphos	F/sta	N/sia	L/sol	L/ca	Paphos	F/sta
2018	Q1	0,8	1,5	-0,4	3,6	0,7	0,5	0,2	-0,6	0,3	1,7
2018	Q2	0,1	1,9	2,1	-0,2	3,2	0,1	0,3	0,3	-0,2	1,9
2018	Q3	0,5	2,9	2,7	-0,2	3,4	0,1	1,3	0,6	-1,7	0,5
2018	Q4	0,8	1,3	0,6	0,5	1,1	0,9	1,2	0,1	2,6	-0,7
2019	Q1	-0,1	1,1	3,8	1,7	-1,1	0,5	1,6	0,4	0,1	-0,3
2019	Q2	0,6	1,8	2,0	0,2	1,9	0,1	0,3	0,1	0,9	1,6
2019	Q3	0,7	2,4	1,7	2,9	0,5	0,4	0,1	0,1	0,6	1,0
2019	Q4	0,3	2,1	-0,2	-3,0	-0,5	0,1	0,4	0,3	-0,9	1,0
2020	Q1	0,8	1,3	1,5	4,4	0,4	0,2	-1,0	1,8	-0,6	0,6
2020	Q2	0,9	2,1	0,4	-1,7	-0,6	1,2	1,0	0,0	1,5	0,5
2020	Q3	0,3	-0,6	1,3	-2,2	-0,3	-0,8	0,4	-1,0	-1,6	0,0
2020	Q4	0,6	0,7	2,2	-1,3	1,0	-1,0	-0,4	-0,1	0,0	0,0
2021	Q1	0,5	1,1	1,9	2,2	3,0	-0,4	1,6	0,3	-1,5	-0,6
2021	Q2	0,5	1,2	0,6	0,9	1,1	-1,3	1,0	-0,1	-0,2	-2,7
2021	Q3	0,7	0,8	0,7	1,7	-0,2	-0,3	-0,3	2,1	1,5	0,7
2021	Q4	0,8	3,4	0,3	4,5	3,4	1,4	0,7	-0,5	-0,6	2,3

Πηγή: KTK.

Notes:

The residential property price index and other residential property price indices and sub-indices presented in the current report are produced by the Real Estate Unit at the Central Bank of Cyprus (CBC).

Data from 2006 to 2009 were collected retrospectively from a number of credit institutions. From 2010 onwards, the data have been collected by the CBC from the member banks of the Association of Cyprus Banks (Bank of Cyprus, Hellenic Bank, Alpha Bank, National Bank of Greece, Astro Bank, Cyprus Development Bank, Société Générale, RCB Bank and Eurobank) and the Cyprus Asset Management Company in standardised form, through an online data submission platform.

The partnered credit institutions receive the relevant information from more than 90 independent property surveyor offices in relation to mortgage lending. The data received are representative of the Cyprus residential property market, covering the whole of the government-controlled territory of the Republic of Cyprus (Nicosia, Limassol, Larnaca, Paphos and Famagusta districts) and they refer to all types of residential property (houses and apartments).

All the estimated indices have been rebased so that the first quarter of 2010 equals 100. The aggregate Residential Property Price Index (RPPI) is calculated as the weighted sum of the two indices by type (house and apartment price indices).

Change in the weighting method to calculate the aggregate indices: In 2015Q1, the weighting method changed and the aggregate houses and flats indices are now calculated by using as weights the summation of the value of the properties in the sample of the last four quarters. This weighting method is applied in the historical series as well. In this way a more representative allocation between houses and apartments in the Cypriot housing market is provided. In previous reports, the indices used to be aggregated using the number of observations (valuations) of the last four quarters. Similarly, the aggregate RPPI is calculated using as weights for the residential property price indices by district the summation of the value of the properties in each respective district. This change in the weighting method was suggested by the IMF as part of an evaluation exercise of the RPPI. The evaluation was carried out in the context of the possible use of the indices for updating the property values of the General Valuation (1 January 2013) undertaken by the Department of Lands and Surveys.

As a result of the change in the weighting method, the CBC RPPI for both the historical (2006-2009) and the new series (2010 onwards) has been revised. In the new series the aggregated flats and houses indices, and the residential property price indices by district have also been revised. It is worth noting that the change in the weighting method has not affected significantly either the level of the indices or their growth rates.

The hedonic methodology is used for the construction of the indices. In case the number of observations per quarter in a particular district is not enough to implement the hedonic method, the simple average method is used. Further details about the methodology and other relevant information are available on the CBC's website, at https://www.centralbank.cy/images/media/pdf/Methodology_EN_latest.pdf

The current report is available at <https://www.centralbank.cy/en/publications/residential-property-price-indices>