EUROSYSTEM

RESIDENTIAL PROPERTY PRICE INDEX (RPPI)

2020 Q3

The sluggish rise of residential property prices continues, with a marginal quarterly decrease recorded for the first time after many quarters.

- The Residential Property Price Index (RPPI)¹ recorded its first marginal decrease in 2020Q3, after sixteen consecutive quarters of growth. The RPPI recorded a quarterly decrease of 0,4% compared with a 0,9% increase in 2020Q2. On an annual basis, a deceleration of 1,2% was registered compared with a 2,2% growth in 2020Q2.
- For the first time since 2016Q1, quarterly decreases in residential prices were recorded in four districts simultaneously. In Paphos there was a decrease of 1,8%, in Nicosia 0,5% and in Larnaca and Famagusta 0,4%.
- Apartment prices recorded a quarterly decrease of 0,2% for the first time since 2016Q3, mainly due to the effects of the pandemic and the decrease in foreign demand. House prices also decreased by 0,5% compared with 2020Q2. On an annual basis, both house and apartment prices recorded a deceleration of 0,7% and 2,5%, respectively.
- Inevitably, the effects of the pandemic and the contraction of economic activity have had an impact on the real estate market and construction activity, with spillovers on real estate prices. At the same time, however, low interest rates and the partial subsidisation of the interest rates on housing loans by the government, have provided support to real estate demand from domestic buyers.

Overview	2019 Q4	2020 Q1	2020 Q2	2020 Q3
Residential property price index (2010 Q1=100)	78,3	78,6	79,4	79,1
Quarterly change	0,3%	0,4%	0,9%	-0,4%
Annual Change	2,2%	1,8%	2,2%	1,2%
(a) Property price index Houses (2010Q1=100)	77,4	77,4	78,1	77,8
Quarterly change	0,2%	0%	1%	-0,5%
Annual change	1,5%	0,8%	1,5%	0,7%
(b) Property price index apartments (2010Q1=100)	80,9	82,0	82,7	82,5
Quarterly change	0,5%	1,4%	0,8%	-0,2%
Annual change	4,1%	4,6%	4,3%	2,5%



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:

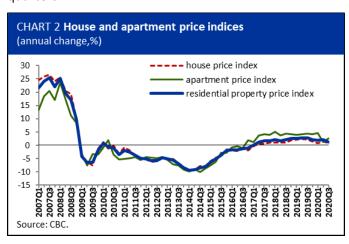
https://www.centralbank.cy/images/media/pdf/Methodology_E N_latest.pdf). Therefore, it is likely that there will be a short lag in capturing turning points in the market with respect to both time and the magnitude of the recovery.

Changes of the residential property price index (RPPI)

The RPPI (houses and apartments) recorded a decrease for the first time after sixteen consecutive quarters of growth. The RPPI registered a quarterly decrease of 0,3%, compared with a 0,9% quarterly increase in 2020Q2.

Apartment prices recorded a slight decrease of 0,2% on a quarterly basis for the first time since 2016Q3, mainly due to the effects of the pandemic and the decrease in demand from foreign investors. Similarly, house prices fell by 0,5% compared with 2020Q2(Chart 1, p. 1).

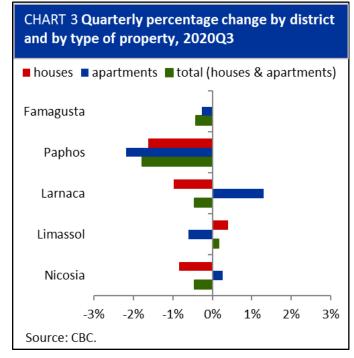
On an annual basis, there was a significant deceleration in the increase of the RPPI, from 2,2% in 2020Q2 to 1,2% in 2020Q3. The increases in apartment prices recorded a deceleration in the quarter under review (2,5%), whilst in all previous quarters, from 2017Q3 onwards, the growth rates exceeded 4% (**Chart 2**). House prices recorded a deceleration of 0,7% in the period under review compared with the previous quarters.



The data above show that the effects of the pandemic, mainly through the contraction of incomes, as well as the lower number of transactions and consequently the subdued demand for real estate from foreign investors, have had a significant effect on the real estate market as a whole, and explicitly on prices. The impact has been evident both in apartments and housing prices.

The real estate market is mainly affected by medium and long-term effects, suggesting that the

impact of the pandemic could become even more pronounced at a later stage. Even though, according to the European Central Bank, house prices in Cyprus are already undervalued, they may record a further decline in the medium-term. In particular, property prices are expected to be under downward pressure due to the continuing economic hardship, rising unemployment and uncertainty, and to a lesser extent due to the termination of the Cyprus Investment Program (CIP)².



At the same time, however, real estate demand has been supported by the partial subsidisation of interest rates on housing loans by the government, as well as by the fact that in a low interest rate environment, the real estate sector is still considered to offer higher returns than other types of investment or deposits.

The corresponding house price index produced by the Cyprus Statistical Service (CYSTAT) recorded a quarterly decrease of 4,8% and an annual decrease of 1,3% in 2020Q3. Differences recorded in the dispersion of the downward trend between the two indices mainly reflect the different methodologies and data used for their construction, as explained in detail in the 2019Q2 RPPI report³.

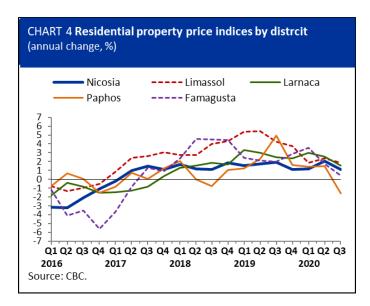
² The majority of properties covered by the CIP are not included in the preparation of the RPPI of the CBC. Any impact on house prices is recorded through diffusion into other property prices.

³ Usually, the two indices which are based on two different but widely accepted methodologies in the literature, result in similar but not identical results.

Price changes by district

In 2020Q3, for the first time since 2016Q1, the residential property index recorded quarterly decreases in four districts simultaneously. In particular residential prices in Paphos decreased by 1,8%, in Nicosia by 0,5%, and in Larnaca and Famagusta by 0,4%. In Limassol, on the other hand, there was a marginal increase of 0,2% (Chart 3, p. 2).

On an annual basis, the RPPI by district recorded a a deceleration in all districts except in Paphos, which recorded a decrease of 1,6%. In Limassol residential prices increased by 1,9% on an annual basis, while in Larnaca by 1,6%, in Nicosia by 1,1% and in Famagusta by 0,4% (Chart 4). It is the first time after seven consecutive quarters that residential prices in a district have declined on an annual basis.



On a quarterly basis, house prices recorded a slight increase of 0,4% only in Limassol. As for the other provinces, in Famagusta they remained stable, while in Paphos, Larnaca and Nicosia they decreased by 1,6%, 1% and 0,8% respectively. On an annual basis, house prices increased in all regions except in Paphos, where there was a decrease of 1,6%. In particular, house prices in Famagusta increased by 2,1%, in Larnaca by 1,1%, in Limassol by 0,8% and in Nicosia by 0,7%.

Apartment prices increased on a quarterly basis in Larnaca and Nicosia by 1,3% and 0,3% respectively. In Paphos, Limassol and Famagusta a drop of 2,2%, 0,6% and 0,3%, was recorded respectively. In Limassol apartment prices recorded a quarterly decrease of 0,6% for the first time after four years of continuous increases. In Paphos apartment prices continued to

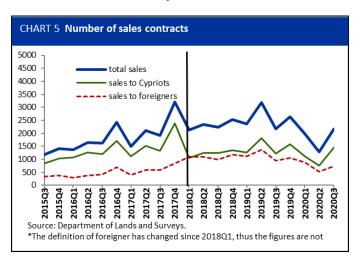
decrease at a higher rate compared with the previous quarter. On an annual basis, there was an increase in all districts with the exceptions of Paphos and Famagusta, where apartment prices decreased by 2,6% and 0,9% respectively. It is noteworthy that in Paphos, a fall in apartment prices was recorded for the first time after eleven consecutive quarters of positive growth. With respect to the increases recorded in the other districts, it should be noted that they displayed a significant slowdown, especially in Limassol recording an increase of 5%, compared with an increase of 8,2% in the previous quarter. In Larnaca an increase of 3% was registered, compared with a 3,4% growth and in Nicosia a 2,1% growth was recorded compared with 2,6% relative to the previous quarter.

Despite the uncertainty prevailing in the real estate market due to the pandemic, it seems that residential prices adjust slowly. The relatively small decreases, as well as some increases that were recorded in 2020Q3 are mainly driven by demand from domestic buyers especially in Nicosia, which historically depends on domestic investors. More specifically, in 2020Q3, real estate sales and purchases by locals recorded an annual increase. This is indicative of the support that the real estate sector receives from the domestic market, given that demand from abroad has been already limited due to the pandemic and other reasons mentioned above.

Other market indicators

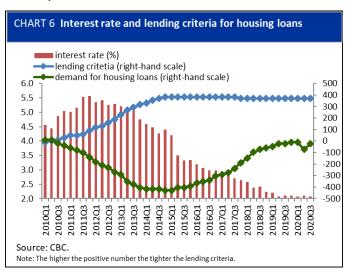
The interest of domestic buyers in real estate and the support they provide to the market appears to be confirmed by various real estate and economic indicators, as indicated by sales contracts.

According to the most recent data published by the Department of Lands and Surveys (DLS), sales contracts for real estate in 2020Q3 have recorded an annual



decrease of 0,2% compared with a decrease of 2,7% in the same period in 2019. Demand from foreign investors dropped by 23,2%, while demand from local buyers increased by 17,6%. The decrease in foreign investment was expected because of the restrictive measures, as well as by the stricter CIP criteria applied in 2019. On the other hand, the increased transactions observed by local investors reinforce the view that the incentives given by the government to subsidise interest rates of housing loans seem to have positively affected Cypriots to invest in the real estate sector (Chart 5, p. 3).

Authorised building permits for residential real estate, which are considered to be a leading indicator to construction activity, recorded an increase of 9% on an annual basis in 2020Q3. Indicatively, in August and September 2020, the number of building permits increased by 16,9% and 9,5%, respectively. It is noteworthy, however, that despite the increase in the number of building permits, the value per square meter of the licensed houses decreased from € 1,33 / sq.m. in 2019Q3 to € 1,15 / sq.m. in 2020Q3. Furthermore, the area per license issued in 2020Q3 decreased to 390 sq.m. compared with 526 sq.m. in 2019Q3.



According to the CBC's Monetary Statistics, new housing loans in 2020Q3 decreased slightly to €211,9 millions, compared with €214,9 in 2019Q3. The decrease could possibly have been much larger without the government's incentives to boost demand for housing loans. It is noteworthy that in 2020Q3, when the government's plan to partially subsidise

interest rates on mortgages came into effect, new loan originations for house purchase increased by 49,8% compared with 2020Q2 (€141,5 millions).

According to CBC's Monetary and Financial Statistics⁴, the interest rate for housing loans⁵ averaged to 2,08% in 2020Q3 compared with 2,10% in 2020Q2. It still remains at a very low level compared with available historical data. (**Chart 6**). The chart also shows the recent increase in demand for housing loans in 2020Q3 compared with the previous quarter, as recorded by the Bank Lending Survey in October 2020. This is in line with CBC's Monetary Statistics historical data.

According to Business and Consumer Surveys (BCS) in 2020Q3, the real estate sector shows an increase, following the decline recorded in 2020Q2, which was the first after several quarters of a continuous upward trend. Property price expectations for the next three months averaged to 3 in 2020Q3, compared with -7,67 in 2020 Q2. At the same time, however, the index of employment expectations for the next three months in the construction sector decreased to an average of -1,43 in 2020Q3 compared with 2,83 in 2020Q2, recording a negative sign for the first time since 2016Q2.

In conclusion, despite the challenges it faces, mainly due to the effects of the pandemic, the real estate sector recorded only small reductions on a quarterly basis and deceleration on an annual basis. Despite the decline in foreign investor demand, it appears that transactions by domestic investors have supported the real estate market. The government's interest rates subsidy on housing loans has offset some of the effects of the pandemic and it appears to have helped boost demand from domestic investors and increase real estate economic activity.

⁴ https://www.centralbank.cy/el/publications/monetary-and-financial-statistics

⁵ Floating rate and up to one year fixed.

TABLE 1 Residential property price indices by type and by district (annual and quarterly data, 2010Q1 = 100)

		<u>Residences l</u>		Resid	dences b	Residential property			
Year*	Quarter	Apartments	Houses	N/sia	L/sol	L/ca	Paphos	F/sta	price index
2006	-	77,7	71,4	74,7	69,0	71,2	85,6	68,4	73,0
2007	-	91,2	89,5	88,8	84,3	90,7	92,7	90,3	89,9
2008	-	104,8	106,1	104,7	103,3	103,2	101,1	106,5	105,7
2009	-	100,2	100,9	100,5	96,9	101,3	103,0	104,4	100,7
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	Q1	82,0	77,4	77,7	84,5	72,0	78,1	72,7	78,6
2020	Q2	82,7	78,1	78,6	85,6	72,1	78,7	72,6	79,4
2020	Q3	82,5	77,8	78,2	85,7	71,8	77,3	72,3	79,1

Source: CBC.

 $\ensuremath{^{*}}\xspace$ 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)

				<u>Apartm</u>	<u>ents</u>			<u>Houses</u>					
Year*	Quarter	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	Q1	81,4	94,9	70,8	71,9	62,2	76,2	80,8	72,4	80,7	75,4		
2020	Q2	82,1	96,9	71,1	70,7	61,8	77,2	81,6	72,4	81,9	75,8		
2020	Q3	82,3	96,3	72,0	69,2	61,7	76,5	81,9	71,7	80,6	75,8		

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, %)

		<u>Residences k</u>	oy type		Resid	Residential property			
Year*	Quarter	Apartments	Houses	N/sia	L/sol	L/ca	Paphos	F/sta	price index
2007	-	17,4	25,3	18,9	22,1	27,3	8,3	32,1	23,3
2008	-	14,8	18,6	17,9	22,5	13,8	9,1	17,9	17,6
2009	-	-4,4	-4,9	-4,0	-6,2	-1,9	1,8	-1,9	-4,7
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	Q1	4,6	0,8	1,2	1,9	3,0	1,4	3,6	1,8
2020	Q2	4,3	1,5	2,0	2,4	2,6	1,5	1,7	2,2
2020	Q3	2,5	0,7	1,1	1,9	1,6	-1,6	0,4	1,2

Source: CBC.

*The annual growth is calculated based on annual indices.

				Apartm	onts				Hous	00	
Year	Quarter	N/sia	L/sol	L/ca	N/sia	L/sol	L/ca	Paphos	F/		
2018	Q1	0,8	1,5	-0,4	Paphos 3,6	F/sta 0,7	0,5	0,2	-0,6	0,3	1
2018	Q2	0,1	1,9	2,1	-0,2	3,2	0,1	0,3	0,3	-0,2	1,
2018	Q3	0,5	2,9	2,7	-0,2	3,4	0,1	1,3	0,6	-1,7	0
2018	Q4	0,8	1,3	0,6	0,5	1,1	0,9	1,2	0,1	2,6	-0
2019	Q1	-0,1	1,1	3,8	1,7	-1,1	0,5	1,6	0,4	0,1	-0
2019	Q2	0,6	1,8	2,0	0,2	1,9	0,1	0,3	0,1	0,9	1,
2019	Q3	0,7	2,4	1,7	2,9	0,5	0,4	0,1	0,1	0,6	1,
2019	Q4	0,3	2,1	-0,2	-3,0	-0,5	0,1	0,4	0,3	-0,9	1,
2020	Q1	0,8	1,3	1,5	4,4	0,4	0,2	-1,0	1,8	-0,6	0,
2020	Q2	0,9	2,1	0,4	-1,7	-0,6	1,2	1,0	0,0	1,5	0
2020	Q3	0,3	-0,6	1,3	-2,2	-0,3	-0,8	0,4	-1,0	-1,6	0,

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 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 http://www.centralbank.gov.cy/media//pdf/Methodology EN.pdf

The current report is available at http://www.centralbank.gov.cy/nqcontent.cfm?a id=11836&lang=en