



CENTRAL BANK OF CYPRUS
EUROSYSTEM

Residential Property Price Index

2010Q4

Summary results for the period between 2006Q1 and 2010Q4:

- Residential property prices (house and apartment prices) increased by 53,7% for the period between 2006Q1 and 2008Q3. This increase was followed by a decrease in prices of 9,4% for the period between 2008Q3 and 2010Q4.
- The highest increase in residential property prices for the period between 2006 and 2008Q3 was recorded in Famagusta (88,1%).
- The highest decrease in residential property prices for the period between 2008Q3 and 2010Q4 was also recorded in Famagusta (16,3%).
- Residential property prices for 2010 recorded a decrease of 2,5% on an annual basis. Prices stabilised in Nicosia and decreased in all other districts.
- For the period between 2010Q3 and 2010Q4, the Residential Property Price Index recorded a 1,6% decrease.

Introduction

This report presents the Residential Property Price Index (RPPI) and sub-indices¹ produced by the Central Bank of Cyprus's Real Estate Unit (REU), which is part of the Economic Research Department (ERD). Data for the period 2006-2009 were collected retrospectively from a number of monetary financial institutions (MFIs). The data for the period after 2009 are collected by the Central Bank of Cyprus (CBC) from all local MFIs² in a

¹ The CBC residential price indices are based on valuation data dating back to 2006Q1. Valuation data are submitted to the CBC by the partnered banks, which in turn receive the relevant information from independent property surveyors for the purpose of granting mortgage loans. 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. In constructing the indices the hedonic methodology was employed. Further details about the methodology and other relevant information are available on the CBC website, www.centralbank.gov.cy.

² The partnered MFIs are the members of the Association of Cyprus Banks (Bank of Cyprus, Marfin Popular Bank, Hellenic Bank, Alpha Bank, Emporiki Bank, National Bank of Greece, Piraeus Bank, USB Bank, Cyprus Development Bank, Societe Generale and Eurobank) and the Co-operative Central Bank.

standardised form, through an online data submission platform³.

Results

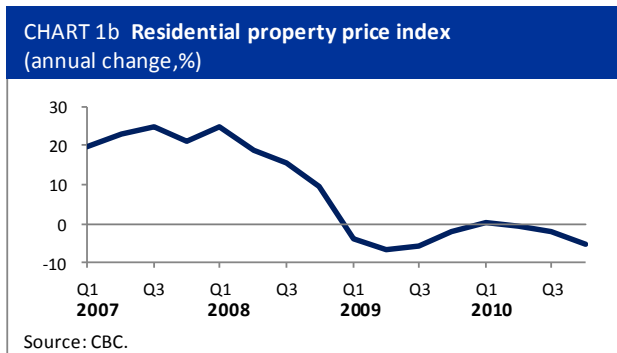
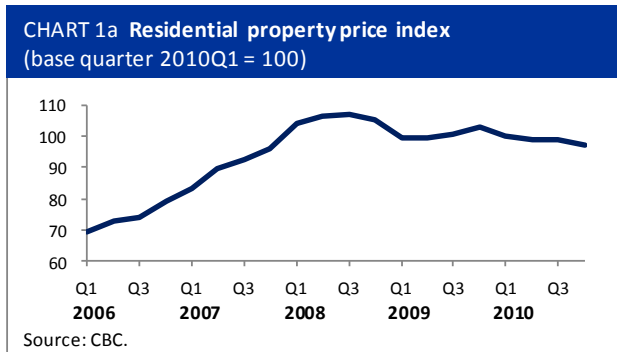
Between the first quarter of 2006 and the third quarter of 2008, the RPPI⁴ recorded an upward trend, peaking in the third quarter of 2008. During this period the index has increased from 69,8 points to 107,3 points, registering a total increase of 53,7%. Since the third quarter of 2008 prices have exhibited a downward trend and the index has decreased from 107,3 points in the third quarter of 2008 to 97,2 points in the fourth quarter of 2010, an overall decrease of 9,4% (Chart 1a) (p. 2).

The aforementioned trend is also depicted in Chart 1b (p. 2), which shows the quarterly year-on-year changes of the RPPI. The highest rate of increase in the RPPI was 23,8%, which was recorded in the first quarter of 2008. Since the first quarter of

³ The volume and quality of the data collected from 2010 onwards enable deeper and more thorough analysis of real estate market trends.

⁴ The RPPI is calculated as the weighted sum of the two by type sub-indices (house and apartment price indices), using the quarterly number of observations as weights.

2009 onwards the index has exhibited a downward trend and the year-on-year growth rate has become negative. The biggest decreases of 5,8% and 5,6% were recorded in the second and third quarter of 2009, respectively.

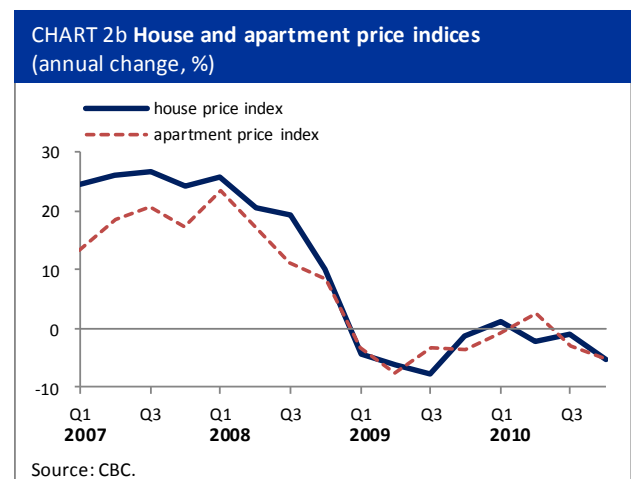
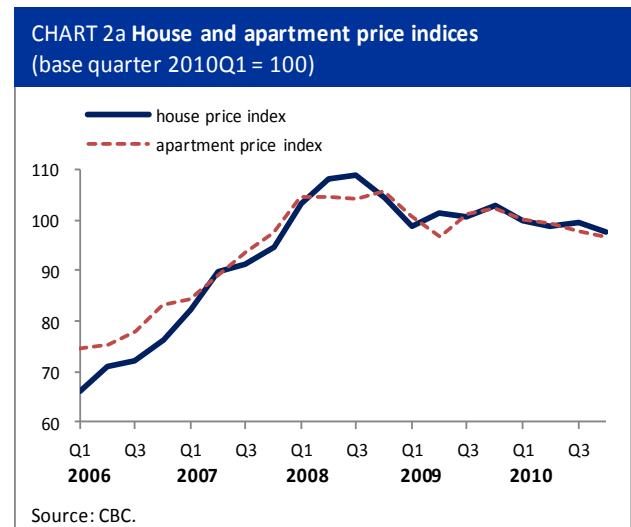


On a quarterly basis, the RPPI dropped from 98,8 points in the third quarter of 2010 to 97,2 points in the fourth quarter of 2010. From 2009 to 2010 the index recorded an average decrease of 2,5%, on an annual basis.

The apartment price index and house price index are depicted in levels in Chart 2a, while their respective year-on-year quarterly changes are depicted in Chart 2b. Overall the two indices follow a parallel trend, with house prices appearing more volatile relative to apartment prices.

The aforementioned indices are presented numerically in Table 1 (p. 5). For the period between the first quarter of 2006 and the third quarter of 2008 apartment prices recorded an increase of 39,9%, whilst for the period between the third quarter of 2008 and the fourth quarter of

2010 they recorded a decrease of 7,2%. For the same two periods house prices recorded an increase of 65% and a decrease of 10,6%, respectively. On a quarterly basis, both house and apartment prices recorded a decrease in the fourth quarter of 2010 compared with the previous quarter. For this period, the house price index dropped from 99,5 points to 97,4 points, while the apartment price index dropped from 97,9 points to 96,9 points.



The by district residential property indices are also presented in Table 1. For the period between the first quarter of 2006 and the third quarter of 2008 the biggest increase in residential property prices

was recorded in Famagusta (88,1%) and the smallest increase in Paphos (21,5%)⁵ The following price increases were recorded in the other districts: Limassol 59,6%, Larnaca 57,6% and Nicosia 49,1%. For the period between the third quarter of 2008 and the fourth quarter of 2010 residential property prices dropped in all districts. The biggest reduction in prices was recorded in Famagusta (16,3%) and the smallest in Nicosia (5,4%). The recorded reductions in prices for the rest of the districts were as follows: Paphos 11,9%, Larnaca 8,1% and Limassol 6,5%. In the fourth quarter of 2010 the following changes in residential prices were recorded relative to the third quarter of 2010: prices in Nicosia increased from 100,7 points to 101,1 points, prices in Limassol increased from 96 to 96,5 points, prices in Larnaca dropped from 95,9 to 95,8 points, prices in Paphos dropped from 94,2 to 90,3 points and prices in Famagusta dropped from 95,1 to 94,9 points.

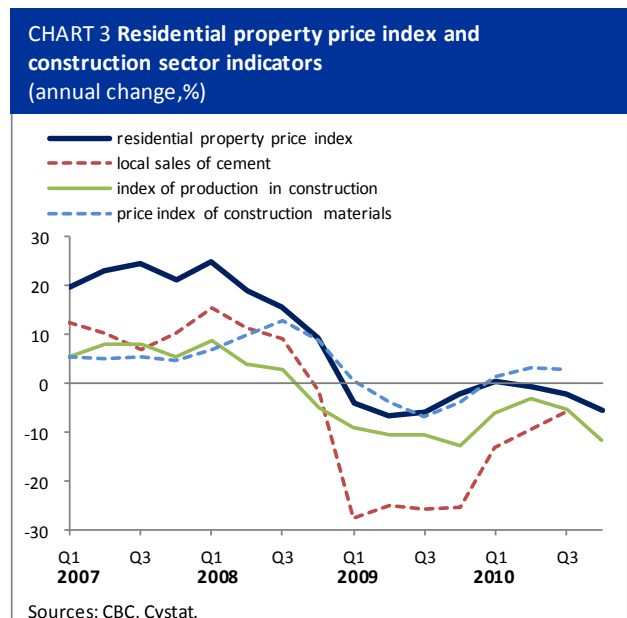
The by district and by type residential property price indices are presented in Table 2 (p. 5). The analysis refers to data collected from 2010 onwards, as this analysis could not be performed on earlier data due to the limited number of observations collected. For the period between the first and the fourth quarter of 2010 apartment prices in Nicosia exhibited an increase of 2,4%, while apartment prices in the rest of the districts recorded decreases with the biggest recorded in Paphos (15,5%). Apartment prices in Limassol decreased by 2,4%, by 2,8% in Larnaca and by 5,8% in Famagusta. House prices also decreased for the same period and in all districts with the exception of Nicosia, which exhibited stable prices. The following decreases in prices were recorded for the

⁵ The small increase in residential property prices recorded in Paphos relative to that in the other districts can be explained by the fact that, according to other indicators of the immovable property market collected from the Statistical Service of Cyprus (Cystat), Paphos exhibited greater development than any other district in the years prior to 2006. Specifically, for the period between 1998-2005 building permits in Paphos exhibited an increase of 87,9%, whilst all other districts exhibited smaller increases (less than 48%). In addition, the dwellings completed in the private sector increased in Paphos by 552,7% during the same period while in all other districts they increased by less than 283%.

rest of the districts: Paphos 5,9%, Larnaca 5,2%, Famagusta 4,6% and Limassol 4%.

Correlation of the Residential Property Price Index with other indices

The RPPI exhibits a positive correlation with other indices developed for the construction sector. Specifically, as Chart 3 shows, the trend followed by the year-on-year changes in residential property prices follows that of the year-on-year changes in the index of production in construction, the price index of construction materials and the index of the local sales of cement. The quarterly year-on-year changes of RPPI exhibits a 0,87 correlation coefficient⁶ with the index of the local sales of cement, a 0,96 correlation coefficient with the index of production in construction and a 0,7 correlation coefficient with the price index of construction materials. The indices depicted in Chart 3 show clearly that the economic conditions in the immovable property sector have been worsening since the third quarter of 2008 with a marginal improvement in the sector shown towards the end of 2009 and beginning of 2010.

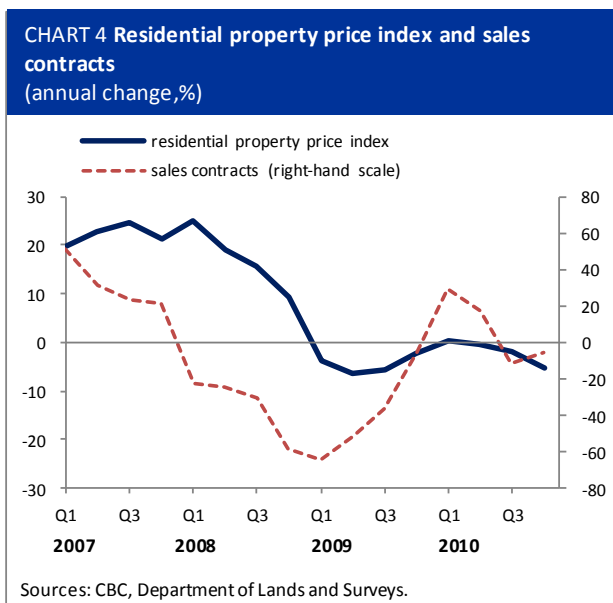


⁶ A correlation coefficient equal to one indicates perfect positive correlation.

The year-on-year quarterly changes in the number of sale contracts and the year-on-year quarterly changes of the RPPI are depicted in Chart 4. Despite the fact that sales contracts are more volatile than the RPPI, the two series follow a similar trend. Furthermore, the year-on-year changes in the number of sales contracts appear to be a leading indicator of the year-on-year changes of the RPPI. This could be attributed to the fact that the RPPI is based on property valuation data (property appraisals). It is well known that property appraisal offices base a large proportion of their assessments regarding the value of a property on real transaction prices of similar properties in the proximity of the property being appraised. Assuming that market liquidity can be a proxy of the trend in prices then the year-on-year changes in

the number of sale contracts can be perceived as a leading indicator of the trend in the RPPI. The correlation coefficient between the year-on-year changes of the RPPI and the first-order lagged of the number of sale contracts is approximately 0,6.

Furthermore, the year-on-year changes of the RPPI exhibit positive correlation with the year-on-year changes in Cyprus’s GDP. Chart 5 shows that the RPPI exhibits a leading relationship with GDP. As can be seen from the chart, the RPPI records the first negative year-on-year change one quarter before it is recorded in GDP, while its recovery precedes that of GDP as well. The correlation coefficient between the RPPI and the first-order lagged⁷ GDP is 0,8.



⁷ The GDP time series lags one quarter behind the RPPI time series. That is the GDP time series spans from 2006Q1 to 2010Q3 while the RPPI time series spans from 2006Q2 to 2010Q4.

TABLE 1 Residential property price indices by type and by district

(quarterly data, 2010Q1 = 100)

Quarter	Residences by type		Residences by district					RPPI
	Apartments	Houses	N/sia	L/sol	L/ca	Paphos	Fam/sta	
2006 Q1	74,6	66,0	71,7	64,7	66,2	84,3	60,3	69,8
Q2	75,3	71,2	73,1	67,3	70,4	86,2	67,6	73,2
Q3	77,9	72,1	74,5	71,2	66,5	85,9	71,7	74,8
Q4	83,3	76,3	79,5	72,8	81,7	86,1	73,8	79,3
2007 Q1	84,5	82,2	82,8	75,8	82,3	88,6	82,9	83,6
Q2	89,1	89,6	90,1	82,2	87,9	90,8	89,2	90,0
Q3	93,8	91,3	91,2	88,0	93,2	93,1	90,6	92,2
Q4	97,5	94,7	91,0	91,1	99,3	98,5	98,7	96,1
2008 Q1	104,4	103,2	103,0	99,7	103,6	99,7	102,9	103,5
Q2	104,6	107,9	104,3	103,5	104,9	99,9	100,6	106,3
Q3	104,4	108,9	106,9	103,2	104,3	102,5	113,4	107,3
Q4	105,8	104,3	104,4	106,6	100,0	102,4	108,9	105,1
2009 Q1	100,9	98,8	99,7	95,6	99,4	103,7	108,3	100,0
Q2	96,8	101,2	100,8	93,7	99,3	104,1	106,0	100,1
Q3	101,0	100,6	101,1	96,7	103,4	102,6	101,1	101,3
Q4	102,1	103,0	100,2	101,5	103,0	101,6	102,3	103,6
2010 Q1	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Q2	99,2	98,8	100,1	96,7	99,5	96,8	95,9	99,0
Q3	97,9	99,5	100,7	96,0	95,9	94,2	95,1	98,8
Q4	96,9	97,4	101,1	96,5	95,8	90,3	94,9	97,2

Source: CBC.

Note: The RPPI was calculated by merging the two house and apartment price indices and then rebasing the produced merged index so that 2010Q1 = 100. Thus, the calculated RPPI may differ marginally from the simple weighted average of the two sub-indices.

TABLE 2 Residential property price indices by type and by district

(quarterly data, 2010Q1 = 100)

Quarter	Apartments					Houses				
	N/sia	L/sol	L/ca	Paphos	Fam/sta	N/sia	L/sol	L/ca	Paphos	Fam/sta
2010 Q1	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Q2	100,0	96,8	100,0	95,0	94,5	100,3	96,7	99,1	98,2	97,0
Q3	100,9	93,1	98,3	91,6	95,9	100,6	97,6	94,0	96,2	93,9
Q4	102,4	97,6	97,2	84,5	94,2	100,2	96,0	94,8	94,1	95,4

Source: CBC.