



**BANK OF GREECE**  
**EUROSYSTEM**  
**Economic Analysis and Research Department**  
**Real Estate Market Analysis Section**

INDICATORS	Average annual percentage changes											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>1. Indices of prices of dwellings (BoG) and rents (ELSTAT)</b>												
1.1 Indices of apartments prices by age and geographical area ( <u>New series</u> )												
a. All apartments (Greece)	5.9	1.7	-3.7	-4.7	-5.5	-11.7	-10.9	-7.5	-5.1	-2.4	-1.0	2.5
a1. By age												
a. New (up to 5 years old)	7.2	2.3	-2.0	-4.2	-5.0	-12.1	-10.9	-6.5	-5.6	-3.0	-0.7	2.9
b. Old (5 years old and above)	5.2	1.3	-4.8	-5.0	-5.8	-11.4	-10.8	-8.1	-4.7	-2.0	-1.2	2.2
a2. By geographical area: Total												
a. Athens	6.2	0.9	-4.6	-3.2	-6.4	-11.8	-12.3	-9.4	-5.3	-1.8	-1.0	3.7
b. Thessaloniki	7.0	1.5	-6.0	-7.4	-6.8	-13.6	-9.1	-6.6	-5.4	-3.5	-1.4	1.9
c. Other cities	6.3	1.8	-2.7	-5.3	-4.1	-10.7	-10.4	-6.6	-4.9	-2.3	-1.1	1.2
d. Other areas	4.6	3.3	-1.9	-5.8	-4.4	-11.6	-9.1	-4.9	-4.6	-3.0	-0.8	1.6
a2.1. By geographical area: New (up to 5 years old)												
a. Athens	9.6	0.0	-3.5	-2.7	-6.5	-12.8	-11.6	-7.6	-5.4	-2.5	-0.6	4.9
b. Thessaloniki	3.7	3.5	-5.3	-6.8	-8.2	-11.2	-7.7	-5.6	-6.1	-3.3	-1.3	2.1
c. Other cities	7.8	2.4	-2.1	-4.3	-3.4	-11.5	-10.3	-7.1	-5.1	-1.9	-0.6	1.3
d. Other areas	4.1	5.4	1.0	-5.7	-3.6	-11.8	-11.2	-4.6	-6.0	-4.4	-0.9	1.7
a2.2. By geographical area: Old (5 years old and above)												
a. Athens	4.5	1.4	-5.2	-3.5	-6.3	-11.3	-12.6	-10.4	-5.2	-1.5	-1.2	3.1
b. Thessaloniki	8.4	0.6	-6.3	-7.6	-6.2	-14.5	-9.7	-7.0	-5.0	-3.5	-1.5	1.8
c. Other cities	5.3	1.4	-3.2	-6.1	-4.7	-10.1	-10.5	-6.2	-4.8	-2.7	-1.5	1.2
d. Other areas	5.0	1.4	-4.4	-5.9	-5.2	-11.4	-7.0	-5.2	-3.3	-1.7	-0.6	1.6
1.2 Indices of prices of dwellings ( <u>Historical series</u> )												
a. Urban areas	6.2	1.5	-4.3	-4.4	-5.5	-11.8	-10.9	-8.0	-5.1	-2.4	-1.0	2.5
a1. Athens	6.2	0.9	-4.6	-3.2	-6.4	-11.8	-12.3	-9.4	-5.3	-1.8	-1.0	3.7
a2. Other urban areas <sup>1</sup>	3.8	2.6	-2.9	-6.7	-7.5	-12.2	-11.5	-3.4	-7.1	-6.7	-4.6	...
1.3 Price index of rents	4.5	3.9	3.6	2.4	0.8	-2.1	-6.8	-7.7	-4.4	-2.6	-2.2	-3.7 (10months)
1.4 Price-to-rent ratio (2007=100) <sup>2</sup>	100.0	97.9	91.0	84.7	79.4	71.6	68.5	68.6	68.2	68.3	69.2	73.1 (Q3)
<b>2. Indices of commercial property prices and rents (BoG)</b>												
2.1 Office price index												
a. Total	-	-	-	-	-	-7.1	-11.9	-9.9	-3.5	-0.1	0.2	1.6
a1. Athens	4.2	3.8	-1.3	-9.8	-5.5	-10.0	-10.9	-3.2	-0.4	-0.4	1.8	8.4
a2. Thessaloniki	-	-	-	-	-7.3	-12.2	-9.9	-5.7	-5.1	0.8	0.5	2.6
a3. Rest of Greece	-	-	-	-	-9.0	-14.0	-8.7	-3.4	1.2	0.8	1.7	7.1
2.2 Office rent index												
a. Total	-	-	-	-	-4.3	-9.7	-7.5	-9.6	-1.5	-0.3	1.2	2.4
a1. Athens	1.1	-0.8	-4.9	-4.7	-5.5	-8.5	-7.3	-6.9	-2.3	-1.5	0.9	1.9
a2. Thessaloniki	-	-	-	-	-4.7	-4.2	-7.4	-8.0	-1.0	0.6	0.8	-0.9
a3. Rest of Greece	-	-	-	-	-2.9	-12.1	-7.7	-13.0	-0.6	0.9	1.6	3.7
2.3 Retail price index												
a. Total	-	-	-	-	-7.1	-11.1	-8.8	-1.8	-3.5	-0.4	1.7	3.1
a1. Athens	7.7	2.2	-3.4	-7.7	-7.7	-13.1	-8.2	-2.8	-2.4	-1.0	1.5	4.9
a2. Thessaloniki	-	-	-	-	-8.7	-13.2	-7.8	-1.2	-2.4	-0.4	1.2	0.1
a3. Rest of Greece	-	-	-	-	-5.6	-7.3	-9.8	-0.3	-5.3	0.4	2.1	1.1
2.4 Retail rent index												
a. Total	-	-	-	-	-7.3	-8.7	-9.9	-9.6	-7.5	-1.8	-1.0	-0.6
a1. Athens	1.4	0.5	-1.2	-16.5	-9.4	-7.1	-12.6	-9.1	-7.1	-0.7	-0.6	0.5
a2. Thessaloniki	-	-	-	-	-5.0	-10.3	-5.5	-7.1	-4.6	-3.4	-1.6	-2.8
a3. Rest of Greece	-	-	-	-	-4.5	-10.9	-6.9	-11.2	-8.9	-3.1	-1.4	-1.7

Sources: BoG: Bank of Greece, ELSTAT: Hellenic Statistical Authority, DSA: Athens Bar Association, TEE-TCG: Technical Chamber of Greece, EFKA: Single Social Security Fund, IOBE: Foundation for Economic and Industrial Research, Ktimatologio SA: Hellenic Cadastre, Athens Land Registry.

<sup>1</sup> Data collected by the branches of BoG, mainly from real estate agencies.

<sup>2</sup> In absolute terms.





## BANK OF GREECE

EUROSYSTEM  
Economic Analysis and Research Department  
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## SUMMARY TABLE OF KEY SHORT-TERM INDICATORS FOR THE REAL ESTATE MARKET (continued)

INDICATORS	Average annual percentage changes											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>3. Indices of residential property transactions</b>												
3.1 Indices of residential property appraisals with MFI intermediation (BoG) <sup>3</sup>												
a. Number of appraisals	36.8	-21.7	-35.7	-0.2	-42.5	-27.7	-21.1	-29.5	-24.1 <sup>(i)</sup>	...	...	...
b. Volume of appraisals in square metres	36.6	-23.5	-38.9	-0.1	-39.8	-26.6	-21.7	-29.7	-27.4 <sup>(i)</sup>	...	...	...
c. Value of appraisals	41.1	-20.0	-40.0	-6.2	-40.1	-35.9	-28.3	-35.8	-31.2 <sup>(i)</sup>	...	...	...
3.2 Indices of contracts of real estate <sup>4</sup> transactions with representation of lawyer: Athens (DSA)												
a. Number of contracts	1.4	-10.0	-18.0	-16.3	-34.1	-48.0	-76.0 <sup>(ii)</sup>	-92.7 <sup>(ii)</sup>	...	...	...	...
b. Value of contracts	12.5	-2.3	-28.3	-20.8	-43.0	-45.5	-56.7 <sup>(ii)</sup>	-77.8 <sup>(ii)</sup>	...	...	...	...
3.3 Indices of deed of real estate <sup>4</sup> transactions (ELSTAT)												
a. Greece, total	-3.0	-5.8	-13.9	-13.3	-29.1	-31.1	-13.7	-12.7	25.8	10.8	15.3	...
b. Athens	-8.2	-9.2	-14.0	-16.8	-32.4	-38.7	-19.5	-1.1	27.9	18.6	21.6	...
3.4 Number of real estate <sup>4</sup> transactions (Hellenic National Cadastre)												
a. Greece, total	-	-	-16.3	-9.8	-28.1	-38.0	-17.5	-64.5 <sup>(iii)</sup>	...	...	...	...
b. Athens	-	-	-15.2	-12.5	-34.0	-43.8	-19.1	-50.1 <sup>(iii)</sup>	...	...	...	...
3.5 Number of real estate <sup>4</sup> transfers (Hellenic National Cadastre)												
a. Greece, total	-	-	-14.0	-13.0	-28.8	-39.3	-13.4	-62.8 <sup>(iii)</sup>	...	...	...	...
b. Athens	-	-	-8.0	-19.2	-33.6	-45.1	-17.2	-48.8 <sup>(iii)</sup>	...	...	...	...
3.6 Number of residential property transfers recorded at the Athens land registry	-	-	-	-15.5	-30.5	-40.3	-10.4	-0.5	46.8	27.7	18.0	59.6 (8 months)
<b>4. Construction costs indices of (new) residential buildings (ELSTAT)</b>												
4.1 Total cost	4.6	5.1	-0.3	1.8	1.0	-0.1	-1.4	-3.1	-2.3	-1.7	0.1	0.6 (Q3)
4.2 Price index of work categories or producer's	2.8	4.2	-0.2	0.3	-0.1	-0.6	-1.1	-3.3	-2.8	-1.6	-0.2	0.5 (Q3)
4.3 Labour cost	2.4	3.3	0.3	0.0	-1.1	-1.1	-1.4	-3.6	-2.8	-1.5	-0.2	-0.4 (Q3)
4.4 Materials cost	6.3	6.4	-0.7	3.0	2.5	0.6	-1.5	-2.8	-2.0	-1.7	0.4	1.0 (10months)
<b>5. Private construction activity (ELSTAT)</b>												
5.1 Greece, total												
a. Number of building permits	-7.2	-17.6	-16.1	-10.9	-28.4	-36.9	-27.7	-18.1	-0.9	-5.6	8.7	8.9 (8 months)
b. Floor Space (in square metres)	-7.8	-19.0	-24.4	-19.8	-41.4	-32.1	-28.3	-12.2	-3.3	-5.2	18.2	16.2 (8 months)
c. Volume (in cubic metres)	-5.8	-17.3	-26.5	-23.3	-37.7	-30.6	-25.6	-5.8	-0.2	-6.9	19.4	13.9 (8 months)
5.2 Athens												
a. Number of building permits	-13.8	-28.7	-15.3	-13.8	-26.4	-47.9	-27.7	-28.4	-8.7	0.5	13.1	4.5 (8 months)
b. Floor Space (in square metres)	-14.0	-26.1	-18.6	-33.6	-44.0	-34.6	-36.1	-12.4	-24.3	18.2	26.8	3.5 (8 months)
c. Volume (in cubic metres)	-13.3	-25.2	-19.4	-34.7	-41.3	-34.7	-29.5	-4.7	-26.8	18.2	27.2	12.6 (8 months)
<b>6. Construction activity</b>												
6.1 Cement production (volume, ELSTAT)	-9.2	-3.1	-21.4	-14.3	-37.8	-12.8	3.4	-3.4	3.6	23.6	-4.5	5.8 (9 months)
6.2 Public investment programme disbursements (BoG) <sup>5</sup>	7.6	9.3	-2.8	-11.3	-17.1	-10.5	14.5	-0.9	-2.8	-1.8	-5.4	-5.9 (9 months)
6.3 Production indices in construction (ELSTAT)												
a. General Index	14.3	7.8	-17.5	-29.2	-41.3	-33.4	-8.2	15.5	3.1	22.9	-14.6	-4.2 (Q2)
b. Construction of buildings	6.7	-0.5	-24.1	-39.7	-42.6	-34.5	-17.3	-0.3	12.5	18.1	-10.2	15.9 (Q2)
c. Civil engineering projects	20.5	13.8	-13.4	-23.3	-39.8	-32.3	1.9	29.7	-3.5	26.8	-17.9	-20.2 (Q2)
6.4 Civil engineer fees (TEE-TCG)												
a. Total	23.5	6.2	-16.2	-2.1	-18.0 <sup>(iv)</sup>	...	...	...	...	...	...	...
b. Construction plan fees	19.0	11.0	-14.5	1.6	-7.8 <sup>(iv)</sup>	...	...	...	...	...	...	...
c. Construction supervision fees	32.5	-2.4	-19.6	-10.0	-40.3 <sup>(iv)</sup>	...	...	...	...	...	...	...

Sources: BoG: Bank of Greece, ELSTAT: Hellenic Statistical Authority, DSA: Athens Bar Association, TEE-TCG: Technical Chamber of Greece, EFKA: Single Social Security Fund, IOBE: Foundation for Economic and Industrial Research, Ktimatologio SA: Hellenic Cadastre, Athens Land Registry.

3 The indices of residential property transactions are based on appraisal reports by banks' engineers regarding the value and qualitative characteristics of the residential properties underlying loan agreements. It cannot be excluded that part of such appraisals are not connected with transactions in residential property, but concern a renegotiation of existing loans, registration of a mortgage to back non-housing loans, debt transfers from one bank to another, etc.

4 Including all real estate categories of residential and commercial properties (dwellings, general stores, offices, building plots, rural plots, etc.)

5 From 2011 the data refer to actual payments and not credit in public investment account.

(i) Data refer to the year-on-year percentage change in the second quarter of 2015.

(ii) The significant decrease in the number of real estate transactions with representation of lawyer in 2013 and 2014 is also due to the change in legislation, which makes legal representation mandatory - for the buyer only - when the transaction value is over 80,000 euro.

(iii) Data refer to the year-on-year percentage change in the first quarter of 2014.

(iv) Data refer to the year-on-year percentage change in the first 10 months of 2011.





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**SUMMARY TABLE OF KEY SHORT-TERM INDICATORS FOR THE REAL ESTATE MARKET (continued)**

INDICATORS	Average annual percentage changes											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>7. Employment in construction (ELSTAT, Labour Force Survey)</b>												
7.1 Total employees	8.9	0.1	-6.6	-12.7	-22.5	-17.4	-17.9	-10.4	-4.2	1.3	1.5	1.5 (Q2)
a. Self-employed person with employees	0.0	-3.7	-1.4	-8.9	-26.7	-32.3	-30.1	-26.9	-3.6	5.3	9.3	30.2 (Q2)
b. Self-employed person without employees	13.2	-8.7	-2.4	-1.0	-5.5	8.4	-6.7	-15.6	-4.5	-0.3	6.7	-7.0 (Q2)
c. Employees	9.4	4.0	-8.9	-16.6	-25.9	-24.1	-21.5	-3.6	-3.3	2.1	-2.5	1.2 (Q2)
d. Family workers	17.4	-22.8	4.6	-0.6	-38.4	-2.5	-18.6	-32.7	-34.9	-16.9	18.6	92.9 (Q2)
<b>8. Construction projects data (EFKA)</b>												
8.1 Number of construction projects	-3.7	-11.2	-16.7	-15.7	-32.1	-38.0	-20.3	-2.8	-7.3	-2.5	-12.7	21.5 (5 months)
8.2 Number of insured construction workers	-3.0	-12.6	-23.2	-21.3	-36.8	-35.4	-17.3	9.6	-5.9	-0.4	-9.6	12.7 (5 months)
8.3 Average days worked per month <sup>2</sup>	14.6	14.2	13.6	13.1	12.3	12.1	12.8	13.3	13.1	13.5	13.8	13.9 (5 months)
8.4 Average wage	8.0	7.9	6.1	2.2	-0.7	-7.8	-23.8	-11.4	-4.1	-0.3	-0.1	-4.0 (5 months)
<b>9. Investment in construction (ELSTAT) and capital inflows (BoG)</b>												
9.1 Investment in construction <sup>6</sup>												
a. Total construction	9.4	-12.5	-10.7	-23.8	-16.6	-17.5	-11.6	-25.7	-12.2	28.5	5.7	-44.9 (Q3)
b. Dwellings	15.1	-24.0	-19.7	-26.3	-14.4	-38.0	-31.3	-53.2	-25.7	-12.4	-5.5	20.8 (Q3)
9.2 Investment in construction as a percentage of GDP <sup>2,6</sup>												
a. Total construction	13.4	11.8	11.0	8.8	8.1	7.2	6.6	4.9	4.3	5.5	5.8	5.5 (Q3)
b. Dwellings	9.9	7.6	6.4	4.9	4.7	3.1	2.2	1.0	0.8	0.7	0.6	0.7 (Q3)
9.3 Net capital inflows from abroad for property purchasing in Greece	66.5	-58.2	-24.4	-35.4	41.8	13.2	57.6	50.2	-36.1	45.3	86.5	172.3 (9 months)
<b>10. Business Expectations (IOBE)</b>												
10.1 Index of business expectations in construction (private activity)	1.5	3.0	-31.4	-27.4	-27.8	26.1	50.6	23.7	-29.9	-1.1	-9.6	4.5 (11months)
a. Total private construction	1.9	-8.4	-43.2	9.3	-18.1	-33.3	45.2	31.5	-3.8	50.1	-8.1	4.8 (11months)
b. Dwellings	-14.0	-28.4	-32.4	-36.5	-42.5	139.7	37.3	-4.7	-32.2	44.4	18.8	21.7 (11months)
c. Other buildings	13.4	0.9	-46.8	20.2	-14.6	-47.5	47.3	39.7	-0.1	46.2	-7.6	2.4 (11months)
d. Public works	0.8	9.5	-24.6	-41.0	-33.9	75.2	46.1	18.6	-35.6	-21.3	-13.2	-4.2 (11months)
10.2 Months of assured production in construction <sup>2</sup>												
a. Total construction	16.8	17.3	15.9	12.9	11.1	8.4	12.7	11.2	10.2	9.1	7.8	8.1 (Nov.)
b. Dwellings	15.4	11.7	11.0	8.3	5.1	3.2	5.7	1.9	1.2	1.1	1.1	3.0 (Nov.)
c. Other buildings	10.1	9.9	8.4	7.9	6.0	3.9	4.7	4.3	4.6	6.6	5.7	7.1 (Nov.)
d. Public works	19.5	21.1	19.8	15.2	14.2	11.0	15.7	13.5	11.9	10.3	9.1	8.9 (Nov.)
10.3 Activity relative to previous quarter <sup>7</sup>												
a. Total construction	10.2	9.5	-16.1	-39.0	-52.7	-44.8	-17.7	-20.6	-29.7	-27.2	-31.5	-29.7 (Nov.)
b. Dwellings	-10.7	-22.4	-30.7	-58.1	-63.7	-47.6	-28.5	-38.9	-58.5	-43.5	-48.6	-2.0 (Nov.)
c. Other buildings	16.4	25.6	-28.8	-27.9	-26.6	-66.9	-24.5	-33.0	-5.3	-1.2	6.7	28.5 (Nov.)
d. Public works	11.3	8.1	-8.2	-41.0	-67.0	-34.5	-14.3	-16.3	-35.0	-37.0	-47.4	-62.3 (Nov.)
10.4 Planned future activity <sup>7</sup>												
a. Total construction	-33.2	-28.8	-42.8	-63.2	-80.9	-76.4	-63.9	-52.3	-56.2	-61.8	-57.7	-60.6 (Nov.)
b. Dwellings	-22.1	-38.9	-52.3	-84.6	-91.4	-71.4	-69.5	-71.5	-73.1	-60.2	-47.9	-36.0 (Nov.)
c. Other buildings	-30.3	-22.7	-56.3	-45.5	-67.8	-85.9	-80.8	-69.4	-56.9	-33.4	-36.7	-23.5 (Nov.)
d. Public works	-36.5	-30.0	-36.5	-67.6	-84.2	-72.9	-57.7	-46.9	-55.7	-72.9	-67.2	-81.6 (Nov.)
10.5 Prospects of employment over the next 3-4 months <sup>7</sup>												
a. Total construction	9.6	10.4	-32.1	-46.4	-53.8	-41.3	-12.2	5.6	-36.3	-31.9	-46.3	-30.7 (Nov.)
b. Dwellings	1.5	-32.6	-60.9	-60.3	-76.9	-52.5	-26.1	-29.0	-59.5	-42.5	-36.5	-18.0 (Nov.)
c. Other buildings	12.8	6.9	-45.8	-36.7	-31.7	-61.3	-41.4	-22.0	-34.5	-7.8	-16.7	0.2 (Nov.)
d. Public works	9.0	18.8	-21.2	-48.3	-60.3	-29.8	-0.2	15.4	-35.8	-41.7	-58.7	-47.9 (Nov.)

Sources: BoG: Bank of Greece, ELSTAT: Hellenic Statistical Authority, DSA: Athens Bar Association, TEE-TCG: Technical Chamber of Greece, EFKA: Single Social Security Fund, IOBE: Foundation for Economic and Industrial Research, Ktimatologio SA: Hellenic Cadastre, Athens Land Registry.

2 In absolute terms.

6 Constant prices.

7 Difference between weighted percentages of positive and negative replies.



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INDICATORS	Average annual percentage changes											
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<b>11. Outstanding balances of loans from domestic MFIs to households (BoG)<sup>8</sup></b>												
11.1 Total	22.2	12.6	3.1	-1.2	-3.9	-3.8	-3.5	-2.9	-3.1	-2.8	-2.3	-2.1
11.2 Housing loans	21.5	11.2	3.7	-0.3	-2.9	-3.4	-3.3	-3.0	-3.5	-3.5	-3.0	-3.0
<b>12. Housing loan interest rates (BoG)<sup>2</sup></b>												
12.1 On new housing loans <sup>9</sup>	4.9	5.3	4.1	3.8	4.7	3.6	3.1	3.3	3.0	3.1	3.1	3.2
12.2 On outstanding housing loans with initial maturity over 5 years	5.1	5.1	4.3	3.7	3.8	3.4	3.1	2.9	2.8	2.6	2.4	2.1
<b>13. Indicators of financing stress (BoG)<sup>2</sup></b>												
13.1 Percentage of non-performing housing loans <sup>10</sup>	3.6	5.3	7.4	10.0	14.9	21.4	26.1	28.6	31.8	32.4	33.2	...
13.2 Housing loans to households as a percentage of GDP <sup>8</sup>	29.8	32.1	33.9	35.6	37.9	39.0	39.3	38.9	38.1	34.8	32.6	31.2

Sources: BoG: Bank of Greece, ELSTAT: Hellenic Statistical Authority, DSA: Athens Bar Association, TEE-TCG: Technical Chamber of Greece, EFKA: Single Social Security Fund, IOBE: Foundation for Economic and Industrial Research, Ktimatologio SA: Hellenic Cadastre, Athens Land Registry.

2 In absolute terms.

8 End of period amounts, including loans and securitised loans.

9 Including charges other than interest (handling fees, mortgage registration fees, etc.).

10 End of period percentages.

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