



# *Monitoring commercial property prices during the crisis*

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*Bank of Greece*

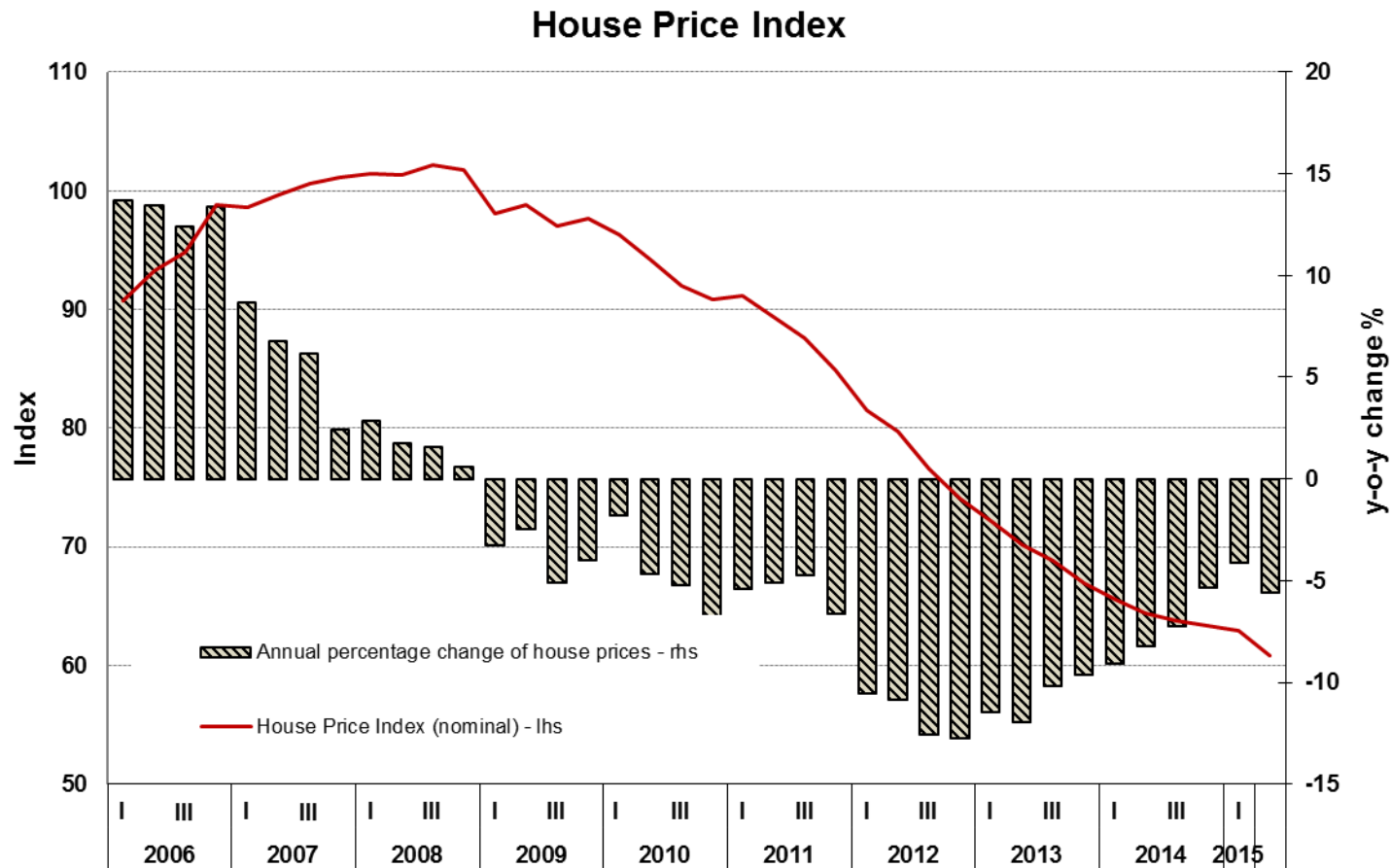
**Prodexpo, 2015**

# 1. Bank of Greece - Synopsis of activities

- ✓ Housing market data collection from credit institutions (on a monthly basis)
- ✓ Quarterly Residential Property Price Indices (Press Releases)
- ✓ Commercial property data collection from REICs and credit institutions (on a half-year basis)
- ✓ Semiannual Office and Retail, Price and Rent Indices
- ✓ Short-term Indicators for the Greek real estate market (revised every two weeks)
- ✓ Quarterly survey among the real estate agencies
- ✓ Transaction data from various sources
- ✓ Regular monitoring and reporting in the publications of the BoG
- ✓ Research



## 2. Residential Property Price Index



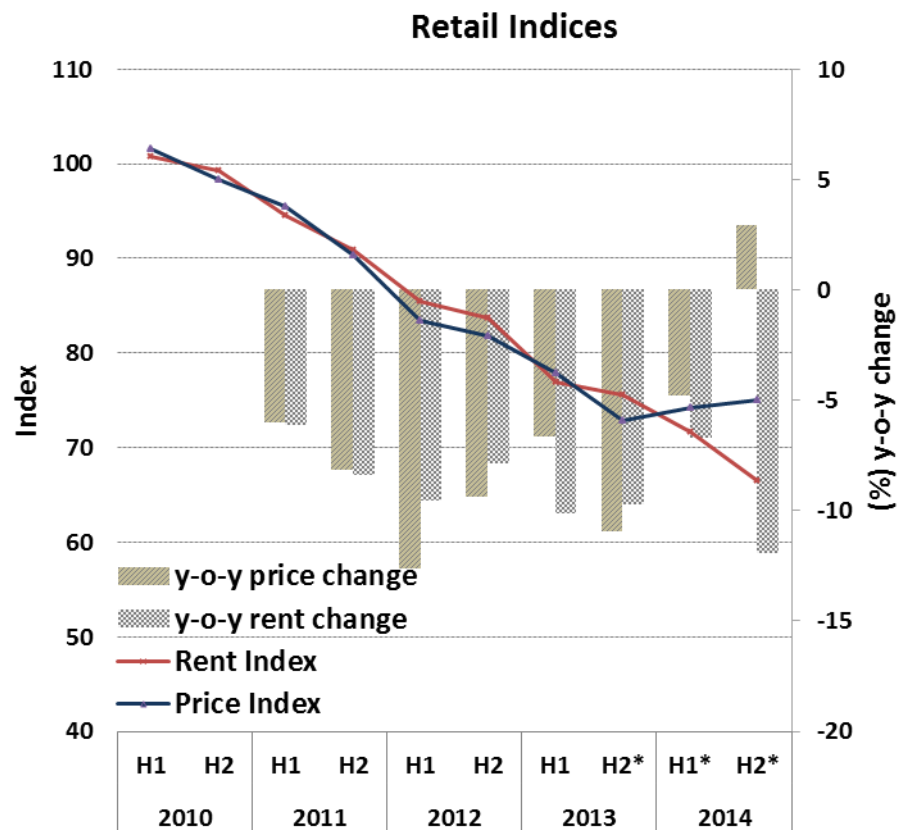
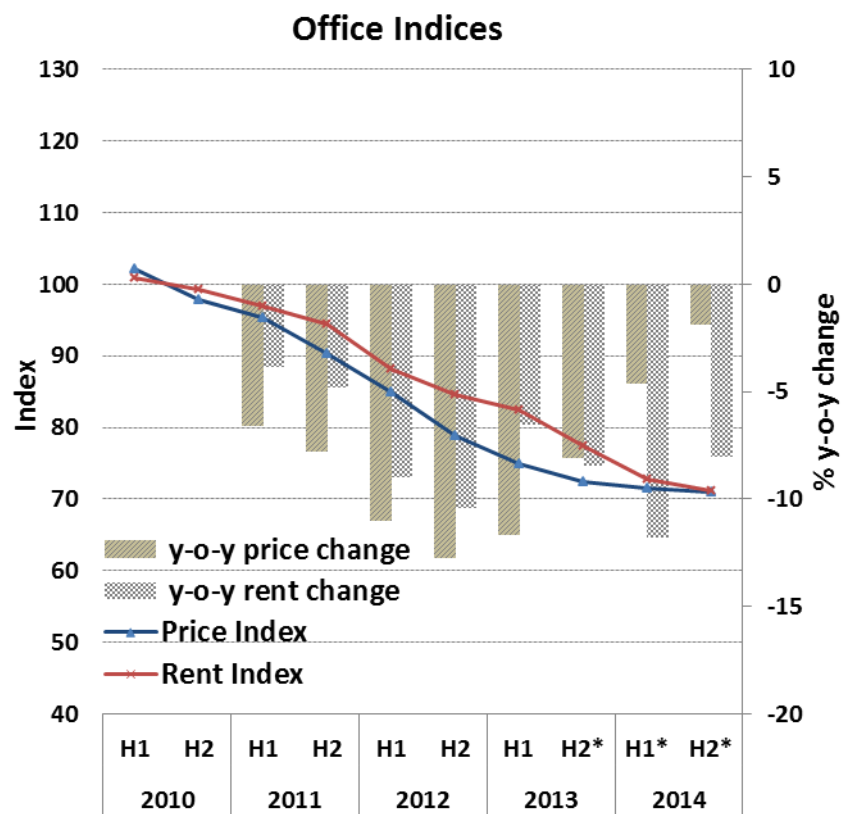
✓ Cumulative adjustment of 40.5% in nominal terms since the onset current financial crisis (2008 Q3 - 2015 Q2)

Source: BoG, data collected from credit institutions



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### 3. Commercial property indices



Source: BoG, data collected from REICs and credit institutions

✓ Prime office prices cumulative adjustment (2010H1-2014H2): 30.4%

✓ Office rent cumulative adjustment (2010H1-2014H2): 29.3%

✓ Prime retail prices cumulative adjustment (2010H1-2014H2): 28.3%

✓ Retail rent cumulative adjustment (2010H1-2014H2): 33.9%

## 4. Research scope and aims

- **Scope:**

- ✓ Identify the factors affecting rental and market values of commercial property

- **Aims:**

- ✓ Identify the potential factors affecting commercial property prices
- ✓ Select the variables and the methodology of analysis
- ✓ Construct models for the two periods of interest
- ✓ Assess the differences before and after the onset of the crisis
- ✓ Examine the overall usefulness of the econometric models to produce a commercial property index

- **Data from Bank of Greece rents and valuation database**



## 5. Limitations

- Qualitative variables (i.e. visibility, accessibility, commerciality, property class) not available for value datasets
- Substantial amount of missing data – variable values
- Smaller sample for the “before crisis” period
- Significant reporting errors that limited final sample size
- Difficulty in applying the model at the country level
  - Complexity of attributing accurate submarkets and main commercial axis for the entire country
  - Need for collaboration with local agencies and professionals
  - Need to introduce further variables for regional market differences



## 6. Dataset

### Data sources:

- ✓ Credit Institutions
- ✓ Real Estate Investment Companies
- ✓ Real Estate agencies

### Data sample:

OFFICE			
	# observations	Reference period	Coverage
VALUES	2073	2006H1-2010H1	Attica
RENTS	2165	2010H1-2014H2	Attica
RETAIL			
	# observations	Reference period	Coverage
VALUES	1020	2006H1-2010H1	Municipality of Athens
RENTS	1904	2010H1-2014H2	Municipality of Athens

- ✓ Filtering – selection of observations with no missing data on all alternative variables
- ✓ Analysis based on Mean Value per sq.m of main use area and Mean Monthly Rent per sq.m. of main use area



## 7. Description of model variables

Retail model variables		Office model variables	
<b>Ln(y)</b>	Dependent variable – price/rent per sq.m. of main use	<b>Ln(y)</b>	Dependent variable – price/rent per sq.m. of main use
<b>MainArea</b>	main use area in sq.m.	<b>Valuation</b>	in € - valuation date: end of reference Half
<b>Valuation</b>	in € - valuation date: end of reference Half	<b>ReferencePeriod</b>	reference half (YYYYHH)- dummies
<b>ReferencePeriod</b>	Reference half (YYYYHH)	<b>PropertyClass</b>	quality rating (1-poor to 5-excellent)
<b>Visibility</b>	quality rating (1-poor to 5-excellent)	<b>Age</b>	age in years
<b>Accessibility</b>	quality rating (1-poor to 5-excellent)	<b>AgeSQ</b>	age sq
<b>Commerciality</b>	quality rating (1-poor to 5-excellent)	<b>Visibility</b>	quality rating (1-poor to 5-excellent)
<b>ConstructionYear</b>	year of construction (YYYY)	<b>Accessibility</b>	quality rating (1-poor to 5-excellent)
<b>RefurbishmentYear</b>	year of last refurbishment (YYYY)	<b>Commerciality</b>	quality rating (1-poor to 5-excellent)
<b>PropertyClass</b>	quality rating (1-poor to 5-excellent)	<b>Construction and refurbishment</b>	the most recent year among construction and refurbishment (YYYY)
<b>Age</b>	age in years	<b>SMCBD</b>	Submarket- CBD
<b>AgeSQ</b>	age sq	<b>SMNorth</b>	Submarket- northern Athens
<b>Ermou Str</b>	face in Ermou Str	<b>SMSouth</b>	Submarket- southern Athens
<b>Other high street</b>	face in high street	<b>SMCentre</b>	Submarket- Athens city center other than CBD
<b>Main commercial</b>	face on main commercial axis	<b>SMOther</b>	Rest of Athens
<b>Main axis</b>	face on other main axis	<b>SMMesogeia</b>	Submarket- Mesogeia area
<b>Patission Str</b>	face in Patission Str		
<b>Thissio Plaka</b>	within the historical Athens center - main commercial axis		

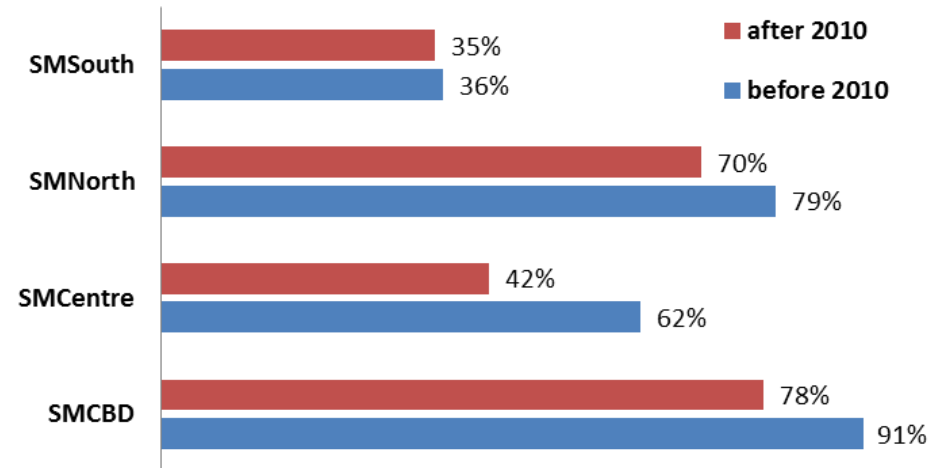




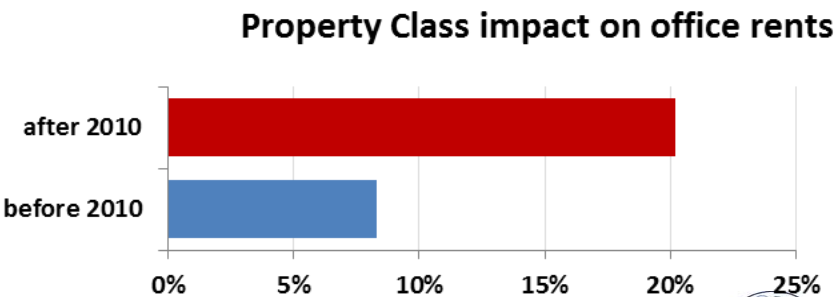
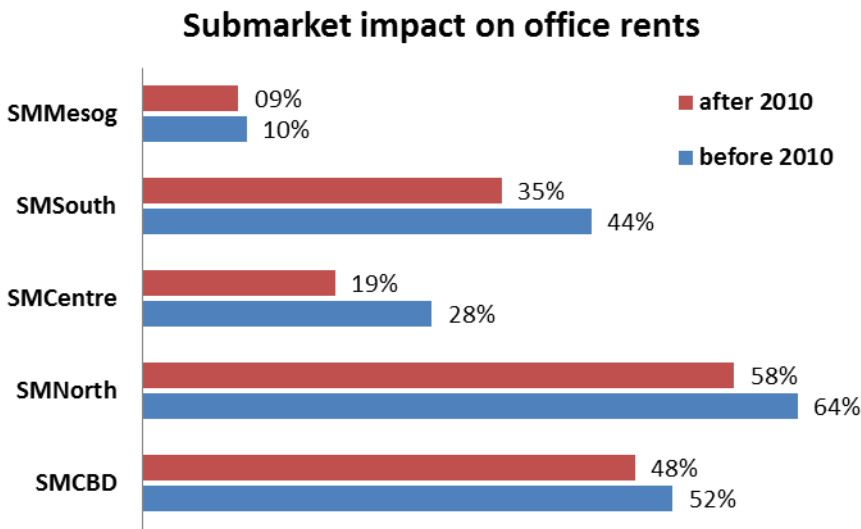
## 8.1 Hedonic models summary results - Prime and secondary office



Submarket impact on office values



# 8.2 Hedonic models summary results – Office rents

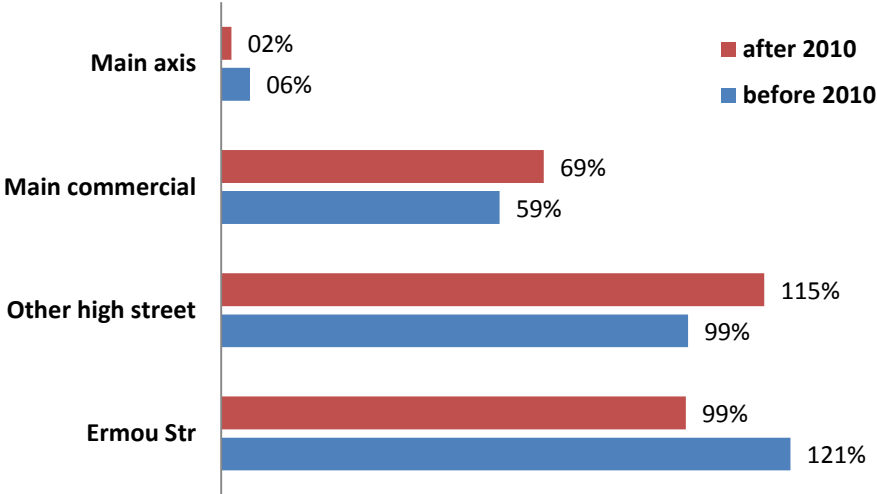




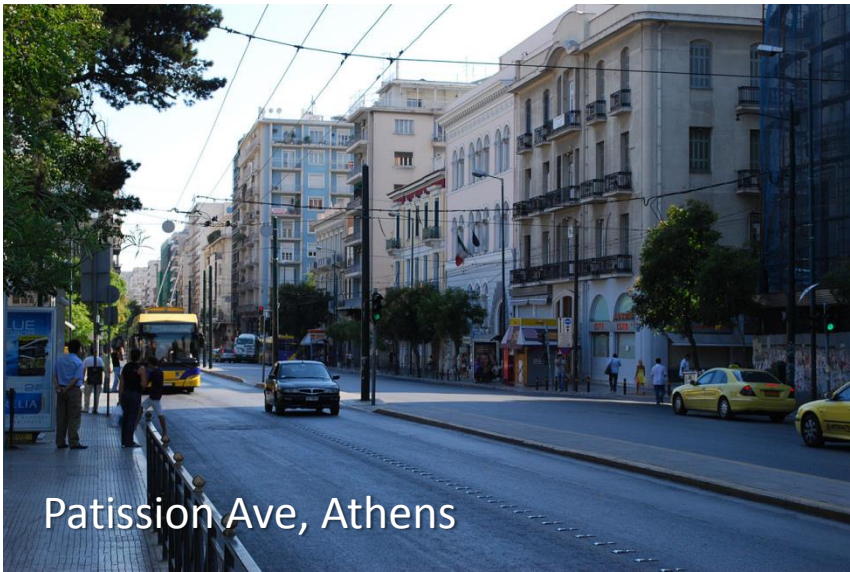
# 8.3 Hedonic models summary results – Prime retail



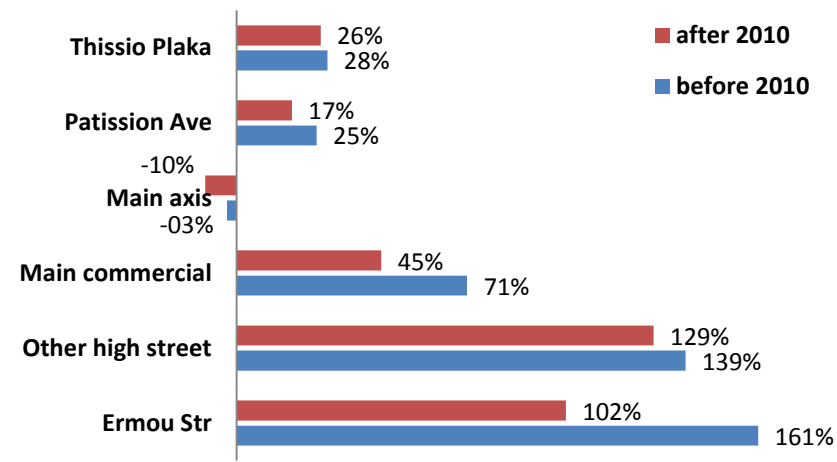
Location impact on Athens retail values



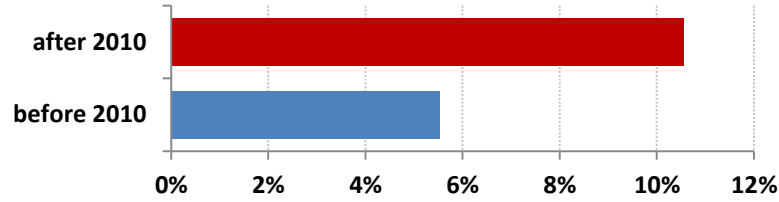
# 8.4 Hedonic models summary results – Retail rents



Location impact on Athens retail rents



Property Class impact on retail rents



## 8.5 Conclusions

- Submarket impact on commercial property prices is highly significant and in certain cases explain value differences exceeding 100 %
- The impact and thus the relative differences between values (both market and rental) due to location become milder after the onset of the crisis
- Office market
  - Prime locations (primary axes) were less affected than secondary markets – axes
  - Difference in values of prime / secondary locations compared to the rest of the market in Athens decreased
  - Property class impact on rents exceeds 20% for every extra point of rating
- Retail market
  - Ermou Str was most heavily affected among prime locations
  - Other high street retail values appear more resistant as they ‘absorb’ part of the significant cumulative drop (-49%)



# Thank you!

For any further information please do not hesitate to contact us:

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