



FIG Working Week 2015

FIG SOFIA 2015



WHICH FACTORS INFLUENCE THE CHOICE OF REAL ESTATE IN 2014: A CASE STUDY ON THESSALONIKI




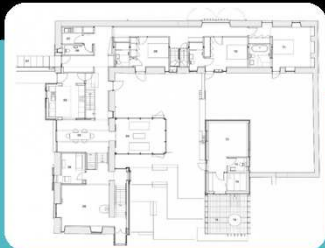
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SOFIA, 2015

INTRODUCTION

Property values



- Social
- Economic-fiscal
- Environmental
- Governmental
- Physical
- Location



Aim:
Highlight **internal structural factors** that influence **residential values** in Thessaloniki, Greece

STUDY AREA

- ▶ 2nd largest city in Greece
- ▶ Largest metropolitan area in northern Greece

Urban sprawl Began in 1971, intensified in 1991-2001.

Economic and political stability + high & intense demand Real estate bubble.

Central areas Constructors & sellers profits → re-investment in new constructions.

Economic crisis hit (2008-2009) New constructions on sale & more being constructed.

New constructions entered the market Values remained at high levels for some time before they started to fall.

Transaction decreased dramatically.

Demand hit ground.

Values fell:

- radically for older properties
- slowly for new ones.

METHODOLOGY

- 1 207 property transactions during 2009-2014.
 - Documentation of structural data, location characteristics and perceptual factors for each property.
- 2 Past transactions were discounted to present.
 - Indexes for residential properties by the Bank of Greece (per geographical area for new (up to 5 years) and old (over 5 years) buildings).
- 3 Data processing in statistical package.
- 4 Creation of regression analysis resulting in a hedonic model.

Monday, 18 May 16:00-17:30 Hall 8.3/8.4, NPC

Stefanos Giannoulakis, Nicolas Karanikolas and Agapi Xifilidou (Greece):
A GIS - Based Model for Valuation and Management of Residential Properties Into the Greek Real Estate Market (7767)

METHODOLOGY (2)

Market size

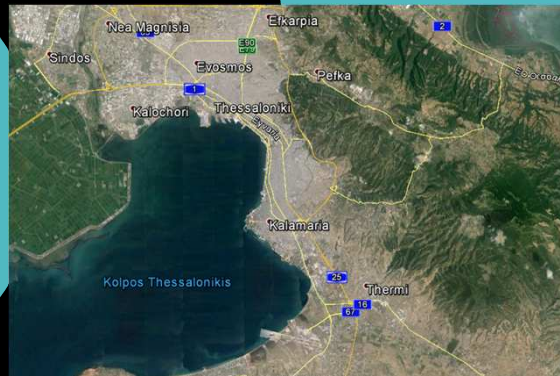
- Active economic life due to its proximity to the borders and its port.

Urban characteristics

- Historical center is densely built and populated.
- West area is less compact.
- East areas are the most sparsely built with large building plots and open areas.

Environmental and topological characteristics

- Southwest: The Gulf of Thermaikos.
- Northeast: The mountain of Kedrinos Lofos next to the Seix Sou forest.



RESULTS

	Description
Value (€)	Market value brought to present
Renovated	Whether the property has been renovated or not
Floor	In which floor is the property
Rooms	Number of rooms
Kitchen	Whether the kitchen is separate, semi-separate or within the living room
Bathroom/WC	Number of bathrooms and WC
Frontage	The view from the frontage of the property
Elevator	Whether the property's building has an elevator
Parking	Existence of parking
Storage_room	Whether there is a storage room within the property or in the basement
Heating	Way of heating
Frames	Kind of window frames
Floors	Kind of floors
Door	Kind of door
Sqrt_condition	Condition of the property
Unif_by_age	Age of the property
In_size	Size of the property (m ²)
Orientation	Orientation

Sample: 207 properties

17 factors for each property

Significance level < 10%

None of the 207 cases was outlier

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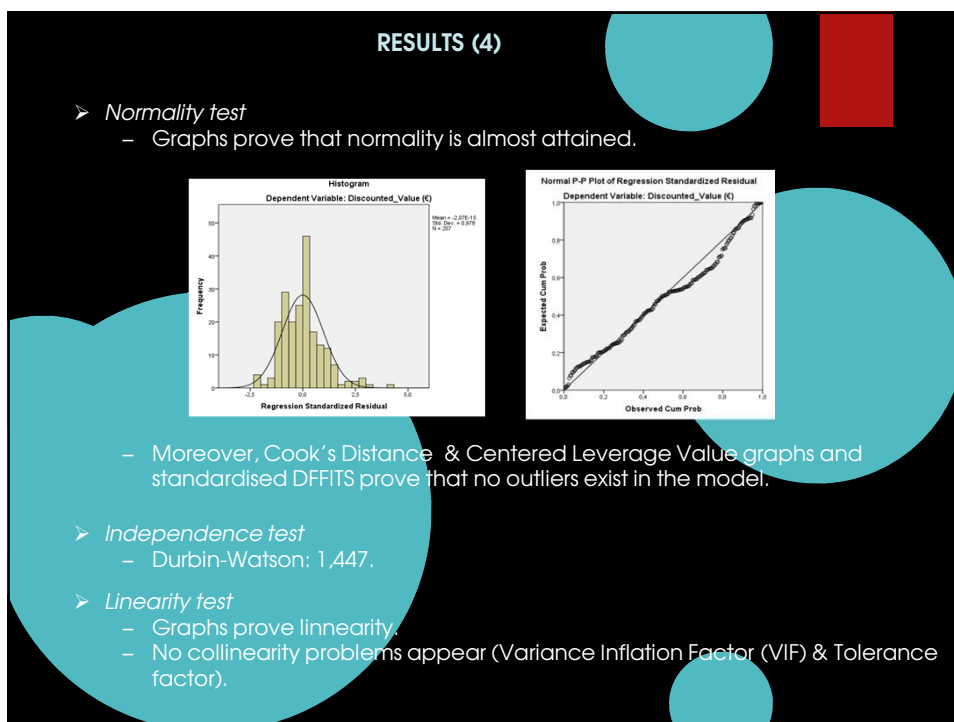
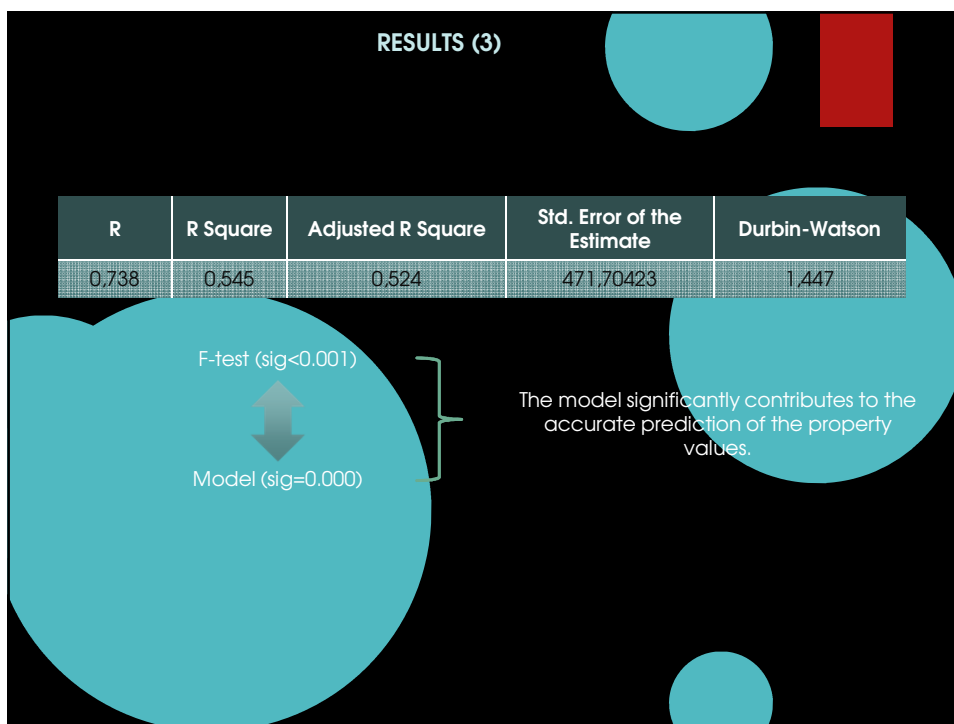
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RESULTS (2)

Model	Unstandardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error		Tolerance	VIF
(Constant)	181,807	403,841	0,653		
Unit_by_age	3155,435	536,354	0,000	0,694	1,440
Floor	105,067	17,011	0,000	0,909	1,101
Elevator	-458,158	73,842	0,000	0,673	1,485
In_size	289,718	88,602	0,001	0,760	1,316
Frames	-387,037	68,564	0,000	0,293	3,412
Door	319,455	70,559	0,000	0,359	2,788
Sqrt_condition	-418,700	98,112	0,000	0,653	1,532
Rooms	247,897	41,246	0,000	0,497	2,011
Frontage	73,904	34,362	0,033	0,722	1,384



RESULTS (5)

Secondary factors with little effect on values:

- Number of bathrooms or WC.
- Existence of storage rooms.
- Separate or semi-separate kitchen.
- Whether the property is renovated or not.

When **income revenues** were high and stable, investors placed their interest in more detailed characteristics of a property and offered more money for it.

When the **crisis hit** and values started to fall, investors realized that they must initially seek satisfaction for basic characteristics.

CONCLUSIONS

When outstanding global events emerge (Greek financial crisis) the effects are noticeable:

- Regular investors' preferences alter & previous excessive demands start to lose ground.
- Decrease in income revenues → investors eager to invest their reduced capital correctly.

Supply of properties is high & constant ⇔ the demand is small but stable.

Constructors and sellers are urgently willing to sell their properties, decreasing values up to some point.

Investors are more cautious and intransigent on their demands.

Demand for certain basic characteristics & unwillingness to pay anything more for any secondary factors.

