

Real Estate in Greece: Taxation-Valuation-Development-Management

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Key words: Real Estate, Taxation, Valuation, Development, Management, Market, Hellas.

SUMMARY

The Hellenic Real Estate Market is going through a maturing phase. Both in professional and educational level an effort is being made to develop a well structured, organized and sustainable operation of the Market, so as to confront the challenges of the future. This paper aims to provide an overall picture of the most important aspects of Real Estate in Greece.

Urban planning data, the use of land and constructions, building regulations, informal settlements and special planning legislation, are factors that have a great impact on market values, especially considering that a slight alteration can rearrange the rules of the “game” and provide significant “net gain in value”. Perfect knowledge of these factors is the base for a promising investment.

In the last few years, mainly due to low bank interest rates, applications for housing loans have increased significantly, since more and more people are buying real estate or just applying for cash, through mortgaging a property.

Banks and insurance companies, assess the properties using their own stuff or self-employed engineers. As the applications for loans increase, the need arises for more partners, more efficient stuff, specialized divisions, large scale market-values databases and Information Systems infrastructure.

Monitoring the need of the market, Universities and private schools tend to include more and more relevant courses in their graduate and postgraduate academic programs, whilst real estate seminars and short training courses are being held throughout the country, in order to produce more specialized professionals.

Real Estate indexes are positive and market values of most real estate categories are going up, due to augmenting housing needs, “cheaper” money, government policy and the enhancement of the socio-economic status of people.

Tax values also keep rising approximately by 30% each year, providing more income for the State, but also creating anomalies to the Market, urging people to buy at certain periods of time in order to save money. Also, new taxes have been introduced as the Value Added Tax on the new constructions.

On the other hand, except from collecting taxes the State has issued a law for development, providing funding and tax-exemptions for certain categories of new real estate development business plans.

Finally the first REITs in Greece have been materialized, while many other (mostly public) companies and organizations are founding subsidiary companies to manage and exploit their big real estate agendas.

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1. MARKET ANALYSIS

Real Estate development has been one of the most important factors of the Hellenic economy during the last decades, supporting many relevant business branches and providing jobs to lots of people. Though, until the last few years, Real Estate Market in Greece was based on individual initiative and actions without actual organization and operational framework. Now, it is finally passing through a maturing phase, as we will analyze in the next pages.

1.1 Market Values through time

Macro-economically, market values are constantly rising. Provided that Greece presents one the highest ownership-occupancy rates (74%) internationally and that investing on real estate is considered to be one of the most risk-free and often profitable investments, the Hellenic real estate market is continuously recording intense activity, following of course the supply-demand theory. In fig.1 we can see the index of the evolution of dwellings market prices in Urban Athens from 2000-2005. [Source: "Bulletin of Conjunctural Indicators", Bank of Greece].

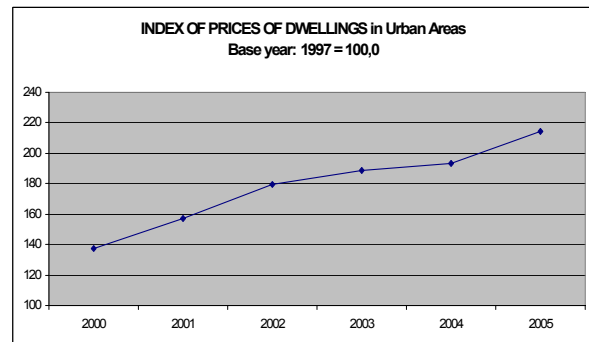


fig.1

It is noted that almost 130.000 properties are sold every year (30% of them in Attica), approximately 1 out of 10 properties is vacant, almost 20% of the population live in a rented property, rental returns are estimated between 3,5%-7,5%, professional establishments net returns are estimated between 5%-6% and logistics net returns are estimated between 7%-8%. [Source: "Real Estate & Development" RED magazine].

1.2 Economic Data - Indices

In order to understand the structure and operation of the Hellenic Real Estate Market it is essential to describe some of the aspects of the Hellenic economy. The following first two charts present the evolution of the Overall Consumer Price Index from 1960-2006, having 2005 as base year, while in fig.2 we can see the annual average index and in fig.3 we can see the rate of index change percentage. [Source: "Bulletin of Conjunctural Indicators", Bank of Greece]. The trend of stabilization is rather obvious in the last 8 years. Fig.4 presents the Hellenic Gross Domestic Product at market prices as well as per capita from 2000-2005, leading a normal ascending course either ways, while fig.5 presents the evolution of inflation in Greece from 2002-2007. [Source: National Statistical Service of Greece].

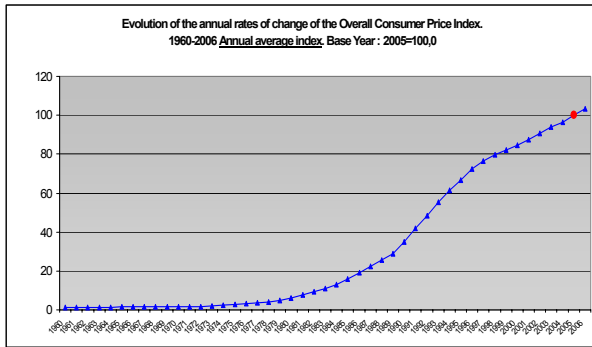


fig.2

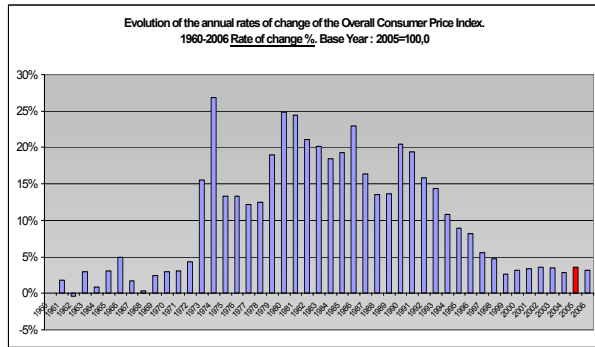


fig.3

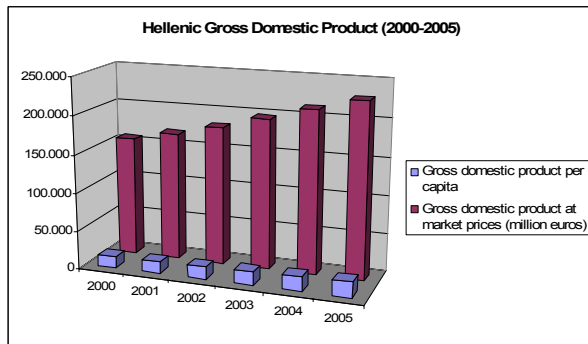


fig.4

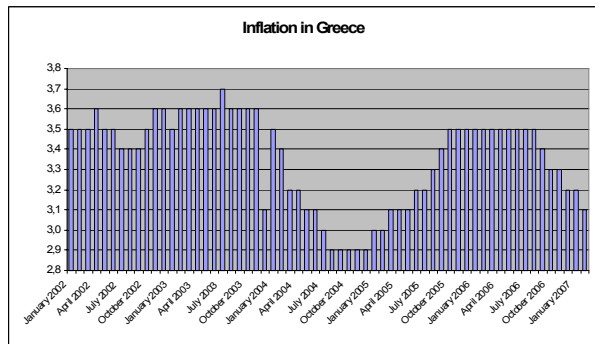


fig.5

From the National Statistical Service of Greece we have also obtained data for the population in Greece over the past 46 years which is presented below by a chart in fig.6.

The FTSE EPRA/NAREIT Global Real Estate Index is a market capitalization weighted index, based on the last trade prices of shares of eligible companies. The market capitalization of each constituent is adjusted for free float. The FTSE EPRA/NAREIT Global Real Estate Index has a base date of December 31, 1999 at 1000 index points. The index is designed to reflect the stock performance of companies engaged in specific aspects of the North American, European and Asian real estate markets as perceived by institutional investors. In fig. 7 the European index (purple line) is compared to the Hellenic index (blue line) during the last 3 years. [Source: The European Public Real Estate Association (EPRA) & The National Association of Real Estate Investment Trusts (NAREIT)]

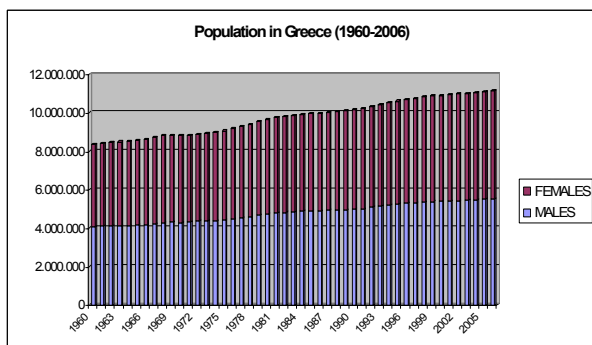


fig.6

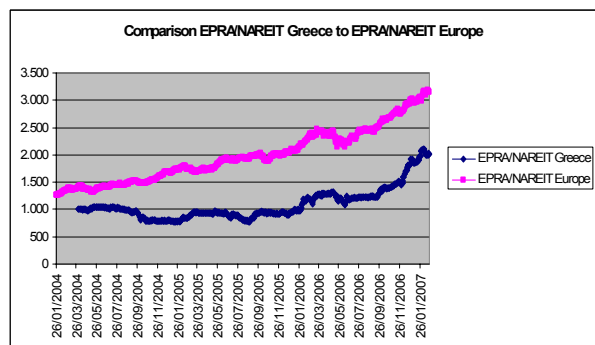


fig.7

Some of the major banks in Greece along with financial agents of the local real estate market have founded a company named “Propindex Co.” being responsible of analyzing the market and producing the homonymous index for various property types and areas of the country. The first results are due anytime in the near future and are expected to constitute a valuable tool for the forthcoming improvement of the market’s operation.

In the past another similar effort was made from “Property Ltd” company which produced indices as the ones shown below, after their own data collection, analysis, processing and presentation. In fig.8 we can see a chart with indices for all types of properties (green for the apartments, black for the professional establishments, blue for the industrial & logistics and red for the general index) for the “complicated” centre of Athens, while in fig.9 corresponding data is presented for the “simpler” Western Attica Suburbs.

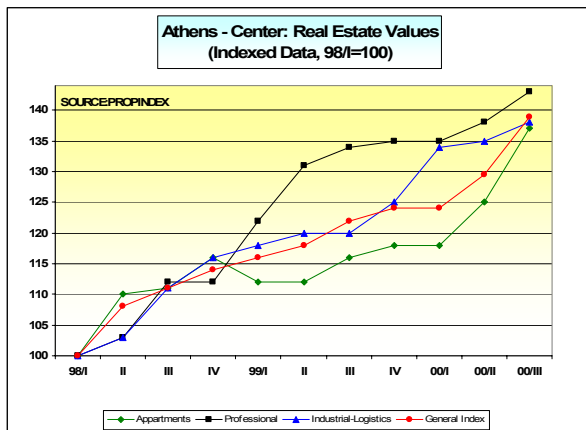


fig.8

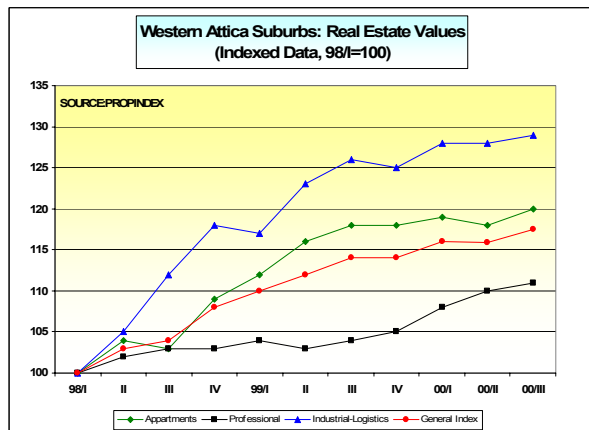


fig.9

1.3 Constructions

As we already mentioned, constructions are a major factor of the Hellenic economy. Though, as we can see in fig.10, the Constructions Cost Index (with yellow color) for New Residential Buildings is ascending with a higher increment rate than the Consumer Price Index (with blue color), substantially making the cost of the constructions more and more expensive and less profitable for the constructions professionals. [Source: National Statistical Service of Greece].

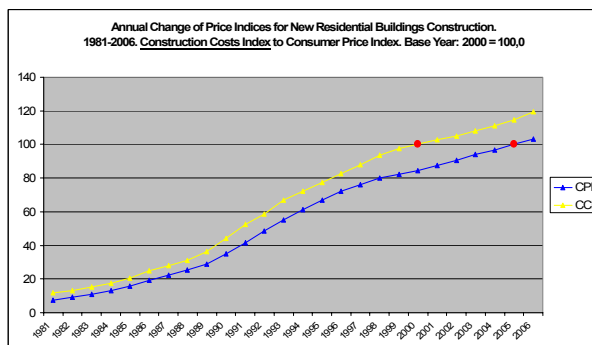


fig.10

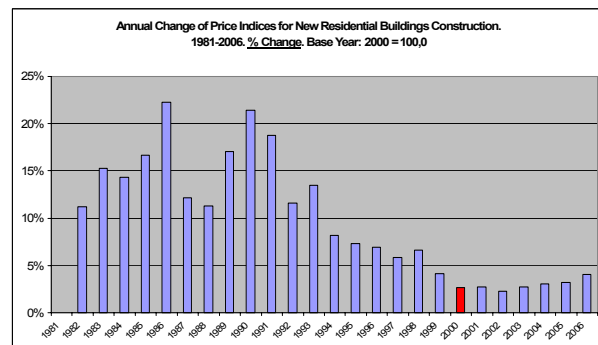


fig.11

The stabilization of the percentage of annual change of prices for new Residential Buildings Construction, from 1981-2006, is presented in fig.11, while the cost for the construction of new dwellings is analyzed to its components (materials, labour, rest) in fig.12. [Source: “Greece in figures 2006”, National Statistical Service of Greece]. According to the same source, private construction activity was significantly increased during 2005 compared to the period 2000-2004, mostly due to the augmentation of the number of new dwellings (fig.13).

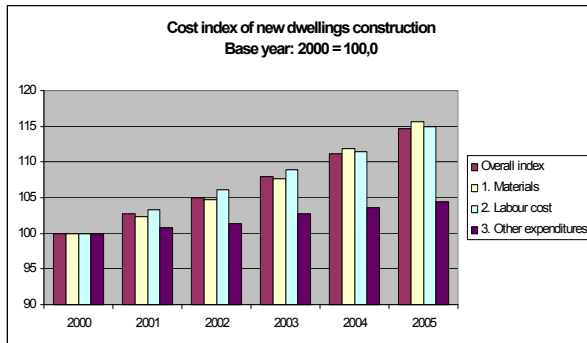


fig.12

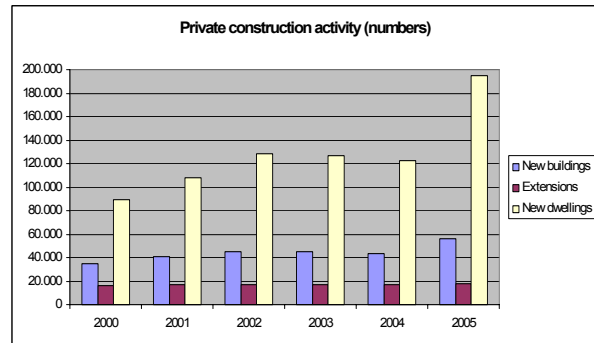


fig.13

According to the “Bulletin of Conjunctural Indicators” of the Bank of Greece, a great peak in the private building activity was observed in 2005 (fig.14), mostly because of the huge number of building permits issued then and especially in December of the same year, since from 01.01.2006 new constructions are liable to VAT 19%. In the chart of fig.15, we can see a very high peak of the Production Index in Constructions, marked in 2002, mostly due to various civil engineering projects (yellow) developing for the preparation of our Country for the Olympic Games of 2004.

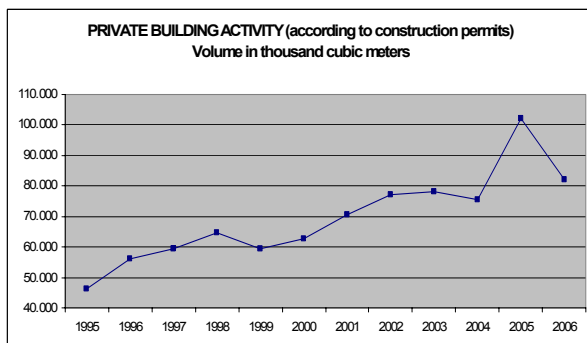


fig.14

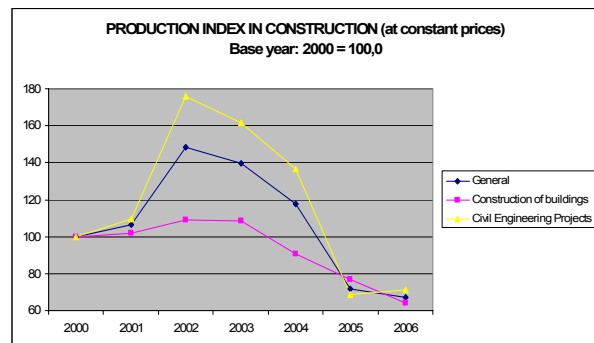


fig.15

Statistically, it is interesting to see that almost half (49%) the constructions in Greece were developed from 1946-1980 and only 25% from 1985-today (fig.16). Also, 57% of the constructions in Greece are only basements, 30% have an extra floor and only 13% have 2 or more extra floors (fig.17) including of course all the constructions Country-wide and not only those in the big cities and the urban areas. [Source: “www.statistics.gr” National Statistical Service of Greece].

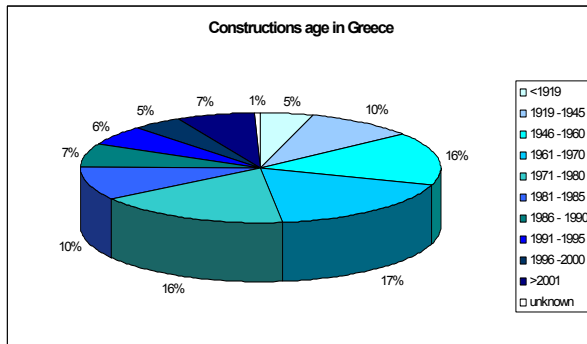


fig.16

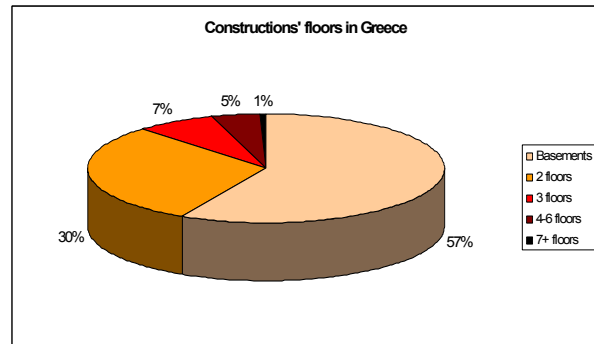


fig.17

Finally, the Constructions Index of the Athens Stock Exchange (ASE) is following the general idea developed above and is recently leading an ascending course with minor corrections. [Source:”www.ase.gr” - Athens Stock Exchange] (fig.18)

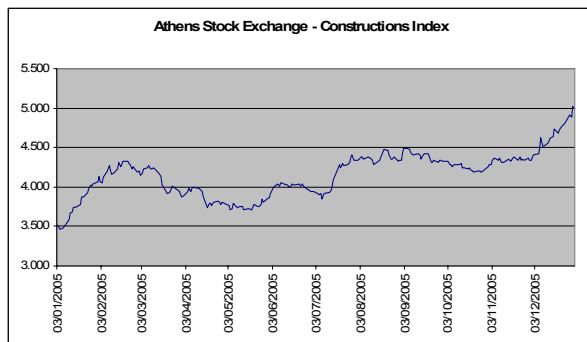


fig.18

1.4 REITs

REITs (Real Estate Investment Trusts) are closed-ended eligible companies, investing on real estate and producing income, distributing most of their profits and enjoying especially attractive taxation.

In Greece, legislation about REITs exists since 1999 (Law 2778/1999 & Law 2992/2002), the first operation permit was issued in 2003 and the first REIT entered the Athens Stock Market in 2005. Until now 2 REITs exist in Greece: “Eurobank Properties” managing a real estate portfolio of 271 million euros and “Piraeus REIT” with 86 million euros, both coming from the banking sector.

The operation of a Hellenic REIT is managed by certain rules and conditions by the State, though the most important factor acting as motivation for the development of more REITs is the taxation benefits. A company like this enjoys full tax (transfer tax 11%, income tax 35%, renting tax 3%, large property tax etc) & expenses (renting expenses 3,6% etc.) exemption, contributing only by a “net gain in value” tax, a 0.3 income tax and a 1% capital concentration tax.

2. TAXATION

Taxation of Real Estate is a rather complicated procedure in Greece, including approximately 33 different taxes and providing a valuable income resource for the State. They can be categorized into three major categories:

- Taxation on income from real estate, which follows the rules of general income taxation
- Annual / periodical taxation
- Taxation on transfer / change of ownership (sale, parental benefit, donation, heritage etc.)

2.1 Annual / periodical taxation

2.1.1 Real Estate Fee (TAP)

Owners of Real Estate are liable to pay 0,35‰ on the property's taxable value each year, providing a major income source to the Local Authorities Administration. For properties connected to the electrification network, it is charged and collected through the electrification bill, whilst for land-plots it is paid directly to the Local Authority.

2.1.2 Large Real Estate Property Tax (FMAP)

Owners (natural or legal persons, no matter their nationality and location) of Real Estate with a total taxable value greater than 243.600€, within the Hellenic borders, possessed on January 1st of each year, are liable to “large real estate property taxation”.

Large Real Estate Property Taxation Calculation for Natural Persons				
Climax (euros)	Tax percent	Tax per category	Taxable Value of Property	Total Tax
243.600	0,0%		Default tax exemption	
243.600	0,0%		<i>Optional tax exemption for spouse</i>	
61.650	0,0%		<i>Optional tax exemption for 1st child</i>	
61.650	0,0%		<i>Optional tax exemption for 2nd child</i>	
73.400	0,0%		<i>Optional tax exemption for each extra child</i>	
146.750	0,3%	440,25	146.750,00	440,25
146.750	0,4%	587,00	293.500,00	1.027,25
146.750	0,5%	733,75	440.250,00	1.761,00
293.500	0,6%	1.761,00	733.750,00	3.522,00
293.500	0,7%	2.054,50	1.027.250,00	5.576,50
rest	0,8%

Large Real Estate Property Taxation Calculation for Legal Persons				
Climax (euros)	Tax percent	Tax per category	Taxable Value of Property	Total Tax
243.600	0,0%		Default tax exemption	
rest	0,7%

The following statistics came out of editing Large Real Estate Property taxation data, categorizing taxpayers to natural and legal persons, to residents of Greece or not, according to the total taxable value of their property and their location.

Categories		Owners	Total tax (euros)	Tax per capita (euros)	Percent
Taxable Value of property (euros)	243.600-500.000	12.557	4.700.000	374,3	5,2%
	500.000-1.000.000	18.403	22.560.000	1.225,9	25,2%
	1.000.000-2.000.000	6.441	32.080.000	4.980,6	35,8%
	>2.000.000	1.407	30.340.000	21.563,6	33,8%
Residents	Abroad	1.030	4.823.490	4.683,0	5,4%
	of Greece	37.778	84.876.510	2.246,7	94,6%
Location	Attica	27.759	71.500.000	2.575,7	79,7%
	Rest of Greece	11.049	18.200.000	1.647,2	20,3%
Total Natural		38.808	89.700.000	2.311,4	100,0%

Taxable Value of property (euros)	<2.000.000	37.631	28.460.000	756,3	24,8%
	>2.000.000	1.549	86.270.000	55.694,0	75,2%
Total Legal		39.180	114.730.000	2.928,3	100,0%

Legal type	Natural persons	38.808	89.700.000	2.311,4	43,9%
	Legal persons	39.180	114.730.000	2.928,3	56,1%
TOTAL		77.988	204.430.000	2.621,3	100,0%

2.2 Transfer / change of ownership fee

2.2.1 “Not Recently transferred properties”

If the date of acquisition (or the date written on the most recent contract) of the property is December 31st 2005 or older, transfer fee applies and the buyer is liable to pay a tax rate on the taxable value of the property, as shown in the following table:

Taxable Value	Tax Rates on the taxable value						
	Sale		Inheritance			Donation	Parental benefit
	area with Fire dpt	area without Fire dpt	down 2nd grade - up 1st grade	down 3rd grade - up 2nd grade	others		
≤ 5.000	9%	7%	0%	0%	0%	0%	0%
5.000 - 15.000				10%	20%		
15.000 - 60.000	11%	9%		5%	20%		
60.000 - 80.000			10%	10%		5%	
80.000 - 100.000			20%	30%	40%	20%	20%
100.000 - 220.000							
> 220.000							

If the property is to be used as 1st residence by the buyer, the following tax exemptions apply:

Tax Exemptions for 1st residence		
Climax (residence)	Tax Exemptions	Climax (land-plot)
90.000	Default tax exemption	35.000
48.000	<i>Optional tax exemption for spouse</i>	29.000
28.000	<i>Optional tax exemption for 1st child</i>	10.000
28.000	<i>Optional tax exemption for 2nd child</i>	10.000
42.000	<i>Optional tax exemption for each extra child</i>	12.000

2.2.2 “Recently transferred properties”

If the date of acquisition (or the date written on the most recent contract) of the property is January 1st 2006 or newer, “automatic net-gain-in-value” tax applies and the owner is liable to pay a tax rate on the difference between the values of acquisition and sale of the property, depending of the time he possesses the property, as shown in the following table:

Years of possession	Tax rate on the difference of taxable values of acquisition & sale
≤ 5	20%
5 - 15	10%
15 - 25	5%
> 25	0%

In this case, a transaction fee is required to be paid by the buyer that equals to 1% of the taxable value of the property being transferred.

A significant irregularity of this tax is that the difference of values is not calculated with constant prices, providing great net-gain-in-values from the acquisition to the sale value in current prices.

2.2.3 “New properties”

For the properties that had their construction permit issued after January 1st 2006, VAT (value added tax) 19% applies for the constructor upon their delivery.

Some cases that transfer tax applies instead of VAT in new constructions are:

- if the person/company who’s making the building is not a professional constructor
- if the property to be sold constitutes the exchange from the constructor to the land-lord for a percentage of the land-plot that the latter gave to the former
- if the buyer can benefit from the “1st residence” tax exemption, then the rest of the taxable value is subject to transfer tax

The most significant irregularity of VAT application is that it applies on both land and building, considering that the unit-value of a property includes the unit-value of the equivalent land, noted that land cannot be subject to value added tax. Another drawback is that VAT is due to be paid by the constructor maximum in 5 years since the construction, regardless if all the properties have been used / sold or not.

3. VALUATION

3.1 Objective Real Estate Mass Valuation System

The Objective Real Estate Mass Valuation System started to develop in 1985, according to article 42 of Law 1249/1982, mainly for taxation purposes. The system gradually expanded to the whole country, with few exceptions, determining the taxable value of certain real estate categories as apartments, shops, parking spaces and warehouses including the value of their percentage of ownership to the land, determining as well the value of urban land-plots, on the basis of objective criteria. Since then, taxation is based on that “objective” valuation also applying in mortgages, land expropriation values or determining the assets of the Country. According to the system, each municipality is divided into as many value zones (polygonal and linear) as needed to simulate the variation of Real Estate values in the area. An initial basic value (V_{ZONE}) per square meter is assigned to a new first floor residential apartment, appearing on the relative tables and charts of the Ministry of Finance & Economy.

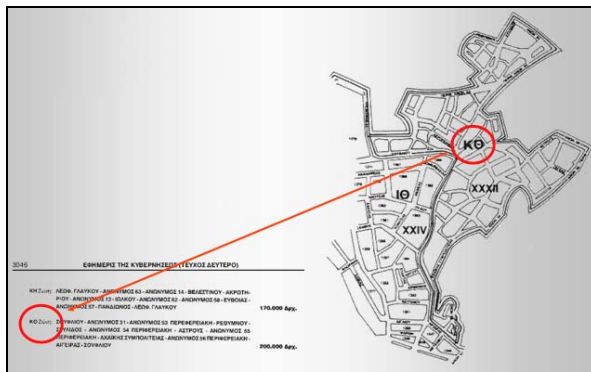


fig.19

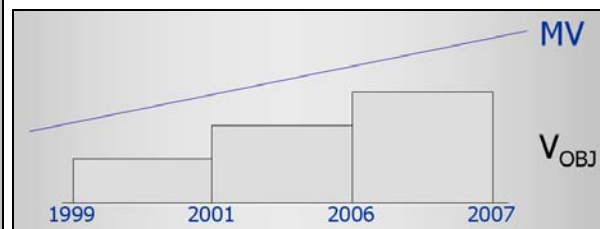


fig.20

The objective, taxable value of each property is the product of the initial value multiplied by a number of tabulated factors, $V_{OBJ} = x_{ij} \cdot V_{ZONE}$, where “i” indicates property value factors (size, age, floor to area ratio, commerciality coefficient and other attributes of land) and “j” indicates type of property (apartment, parcel, garage, etc). The real estate transfer tax is imposed on the objective value thus calculated. If however a contract records a sale value higher than the objective value the tax is imposed on that higher sale value.

The frequency of revaluation of the system is specified in legislation (art.14, Law 882/90) and should occur at least once every two years, by updating the initial values of the system in each region individually.

Certain exemptions from the OREMVS apply in the cases of real estate properties used by industrial, educational, trade or hotel units.

Values estimated by the Objective Real Estate Mass Valuation System are generally lower than market values, revealing the political character of the system. The divergence between values determined by the system and market values vary according to:

- the time valuation is made, in relation to the periodical updating of the system
- the type of property (residence or apartment, store, land parcel, parking place)
- the location of the property

Properties belonging to the same area are appraised on non-flexible criteria, according to the zone's initial value defined by the Ministry of Finance & Economy.

A number of missing parameters such as view and surrounding environment, life span of construction, earthquake calculation and heat insulation factors, not currently included in the system, would significantly improve the property value definition.

Objective Real Estate Mass Valuation System is in fact an unsophisticated, manual-operated system, lacking of a dynamic character in monitoring and adjusting to market values on a given moment.

The periodical updating of the system sometimes results in considerable initial value "jumps".

During that periodical updating the influence rate of the various property value factors can also be changed by the Ministry, resulting to a distortion of the system.

Two extra modules were attached to the system, in order to cover the majority of properties:

The Objective Building Mass Valuation System (OBMVS) was introduced in December 1996 based on the article 10 of Law 2386/1996, which added the article 41A to the Law 1249/1982. This module calculates the taxable value of "special buildings" (only the construction part, not including the parcel percentage value) as car stations, factories, industry buildings, agricultural/cattle raising installations, storehouses, hotels/tourist installations, hospitals/benevolent buildings, schools, sports facilities etc, as well the value of residence and professional establishments outside the city-plan limits.

The Objective Land Mass Valuation" System (OLMVS) was introduced in the year 2000, according to the Ministerial Decision 1144184/26361/POL.1310/1998. This module calculates the taxable value of the land, outside city-plan limits as a sum of three parameters: the "basic land value", the "parcel land value" when there is a building and the "value for further development".

In few small areas, where the above modules do not apply, the old system of comparative data is still valid.

3.2 Market Value Assessments

Currently, the assessment of real estate properties' values in the Greek Market is performed by engineers (Surveyors, Civil Engineers & Architects) and in few cases by economists, without official standards or coordination. For example:

- The Body of Sworn-In Valuers of Greece is the official agency for the assessment of real estate properties and is used in valuations of public properties or in cases of judicial disputes. Each valuation has a significant cost, is carried out by authenticated assessors and is final. The amount of cases BSV is handling annually is limited, due to their complexity and importance.
- Banks hire freelance assessors to estimate Real Estate values and to assist their in-house valuations. The market values calculated are used to define the amount of mortgage that the property will get, as insurance for a loan granted.
- Property Consulting Companies, develop their own models, databases and methodologies to simulate the Real Estate Market and to assist their clients' investments.
- Freelance Real Estate Agents act according to their experience in their local market.
- The role of an Engineer-Assessor is dual. First he conducts a technical control of the property in order to compare the existing situation of the property with the one described in the official documents (contracts, permits, plans, maps etc.) and collects all necessary

information to describe the property. Data collection might be limited on-site or might be continued to responsible public services. And then he calculates the market value of the property according to the most suitable assessment method.

Assessments are not public and access to anybody (even the owner) is restricted. It is very characteristic that the price of a real estate property transaction is only known to the buyer and the seller, especially if we consider that contracts rarely include market values and most frequently taxable “objective” values are shown. Lately an effort is being made to gather assessments from various banks and to populate a database to be used as reference for future assessments.

3.3 CAMA-gr

What difference can a CAMA system make, and how would it work in the Greek reality?

The Hellenic Cadastre, which is now in progress, should constitute an ideal Land Information System to integrate with the Greek CAMA system for the Real Estate Market. Its database and geographic parcel information enriched with value data can provide accurate mapping interface to CAMA information and serve as a means to simultaneously update both CAMA and GIS data.

The Ministry of Economy & Finance is most suitable to host the new system. The existing taxation software “TAXIS” with its module “KEFALAIO” can be used to feed and update CAMA-Gr, according to the taxpayers’ statements of income and to Real Estate transactions.

The system will be operating on a central server of the Ministry, giving on-line access to every IRS office in the Greek territory on various security and authorization levels. So, Real Estate owners or forthcoming buyers can be immediately and accurately informed of a certain value, while certified personnel having access to the system’s database can update, modify and manipulate the original data.

Access to the system can also be granted to other interested parties. Real Estate companies, Banks, brokers and development institutions will be able to query the system and to reach a single assessment, to get other cadastral information and to download forms, property cards, or even submit appeals to the IRS.

A transition from the Objective Real Estate Mass Valuation System to a Greek CAMA system would mean:

- the value of Real Estate will no longer be subject to different assessments, while the market value, the sale price and the tax value will be identical, approaching the assessment from the CAMA system.
- Uniform assessments for use in every aspect of the economic activity of Greece
- Irrefutable assessments, since the system is impersonal and based on scientific methodology
- Social justice with fair land-policy, not-depending on time, place, or other factors
- “Sales data going public, providing more accurate and just assessments”

4. DEVELOPMENT

4.1 Housing loans

Due to the “historically” low interest rates (2%) of the European Central Bank (fig.22) for about 2,5 years (2003-2005) and the growing competition among local and foreign banks and financial institutions in Greece, domestic housing loans have spectacularly increased (fig.21). During the first 3 months of 2007, while ECB interest rate has climbed to 3.75, housing loans’ debt is estimated to 8,8 billion euros augmenting with a 23,8% rate & new bank payments to 818 million euros [Source: “Bulletin of Conjunctural Indicators”, Bank of Greece].

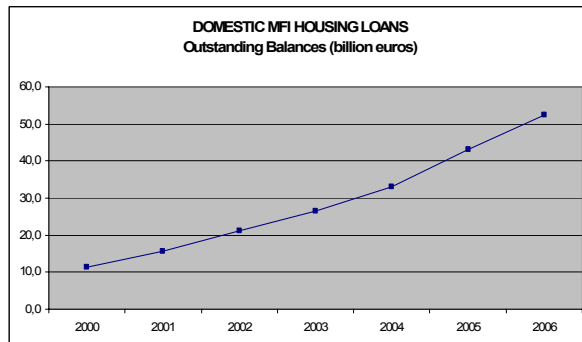


fig.21

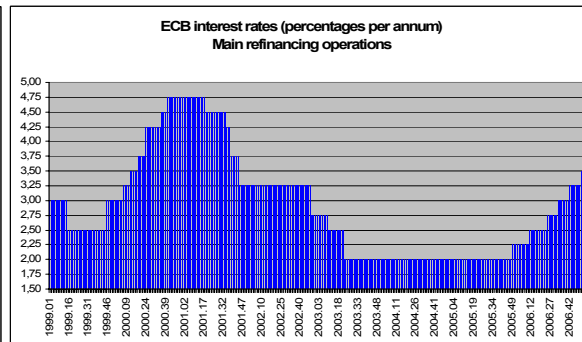


fig.22

4.2 Investment Incentives Law 3299/2004 3522/2006

The Incentives Law applies to enterprises having business activities in the following sectors: Primary (e.g. greenhouses, animal farms, fisheries etc.), secondary (e.g. manufacturing, energy etc) and tertiary: [tourism (hotels, conference centres, marinas, thematic parks, golf courses, mineral springs, thalassotherapy centres, health tourism centres, centres for training etc), other services (e.g. applied industrial research laboratories, commercial centres, software development, supply chain services, logistic centres etc.).

For the application of the provisions of the Law, the Country is divided into three zones. For the applicable investment projects, the following incentives are available:

- Cash grant, which covers part of the expenses for the investment project by the State and/or leasing subsidy, which covers part of the payable instalments by the State relating to a lease which has been entered into for the use of new mechanical and other equipment, in zone A' from 15%-20%, in zone B' from 25%-30% and in zone C' from 35%-40%. On the above percentages, an additional 5% in total is added, provided that one or more special conditions associated to location, category, type, age etc of the investment apply. To small/medium size enterprises, as defined in EU legislation, an additional percentage up to 15% is granted, while 20% apply for very small enterprises. Eligible for the grant are enterprises operating in every sector of the economy, if they fulfil the criteria for the submission to the incentives system.
- Alternatively tax exemption is granted, involving exemption from payment of income tax on non-distributed gains for the first 10 years following completion of the investment, through the

creation of a tax exempted reserve, in zone A' from 50%-60%, in zone B' 100% and in zone C' 100% as well.

5. DISTRIBUTION OF PRIVATE REAL ESTATE PROPERTIES NATIONALLY

Until the completion and full operation of the Hellenic Cadastre, there is a coercive need for the registration of all Real Estate properties, privately owned and public:

- Public properties are managed mainly by the Hellenic Public Real Estate Corporation (HPREC) or by any other public organization (ministries, transportation, public utilities etc.), by the army, the church etc.
- For the private properties, the Ministry of Economy and Finance has issued since 1997 a special form coded “E9” which is submitted ever since along with the annual declaration of income for taxation, by every natural and legal person excluding the public sector as described above. Since 2005, data provided through “E9” is being electronically processed in order to build a computerised “private property index”. This project aims to aid decision-making on fair taxation, management and exploitation of real estate properties. E9 includes all kinds of properties (residences, professional establishments, land-plots, warehouses, parking spaces and special buildings) as well as legal rights on properties (property beneficiaries, bare owners etc) described in detail.

Privately owned real estate properties in Greece represent approximately 85% of the properties of the Greek people, compared to savings, Athens Stock Exchange shares and unit trusts, as shown in fig.28.

Based on data from “E9” forms, we have attempted to estimate the total value of private properties for the whole of the Hellenic Territory. The analysis was also based on demographic data from Census 2001 concerning population registration and distribution, on GIS maps and data on a Prefecture level, on statistical data from the General Secretariat of National Statistical Service of Greece, on land-use information from Cadastre S.A, on taxable values and the objective real estate mass valuation system and finally on real estate market data in order to calibrate the results and to calculate estimated market values for each Prefecture and for the whole country.

The fewest private buildings (26.972) are located in Lefkada Prefecture in the Ionian Sea (area with the less population in Greece) and the fewest private land-plots (52.079) in Evrytania Prefecture in Central Greece. Most of both categories are located in Attica Prefecture, 2.926.607 and 4.014.051 respectively (fig.23).

The lowest mean value of private buildings (41.592 euros) is located in Arta Prefecture in Epirus and of private land-plots (9.450 euros) in Drama Prefecture in Eastern Macedonia. The highest mean value of private buildings (125.475 euros) is located in Dodecanese Prefecture (Rhodes island, Kos island etc.) in the Aegean Sea and of private land-plots (115.003 euros) in Argolida Prefecture in Peloponese (fig.27).

The less expensive private buildings and land-plots in total, are located in Evrytania Prefecture, 1.434 / 626 million euros respectively, while the most expensive of both categories in total are located in Attica Prefecture, 149.767 / 366.225 million euros respectively (fig.24).

The most “poor” inhabitants are located in Kilkis Prefecture in Central Macedonia, owning approximately 62.400 euros worth private real estate property each, while the “richest” inhabitants are located in Cyclades Prefecture (Myconos island, Santorini island etc.) in the Aegean Sea with 543.428 euros each in terms of real estate property ownership (fig.25). And finally, the “poorest” Prefecture is Evrytania Prefecture being worth approximately 1.104 euros per square meter, while Attica Prefecture is worth 135.432 euros/sq.m, despite the fact that nor Evrytania neither Attica are one of the smallest or largest Hellenic Prefectures. (fig.26). The total value of 26.042.110 Hellenic private real estate property is according to our calculations 1.500 billion euros (mean value 57.600 euros per property) divided to 8.863.457 buildings worth 590 billion euros (mean value 66.565 euros per building) and 17.178.653 land-plots worth 910 billion euros (mean value 52.973 euros per land-plot).

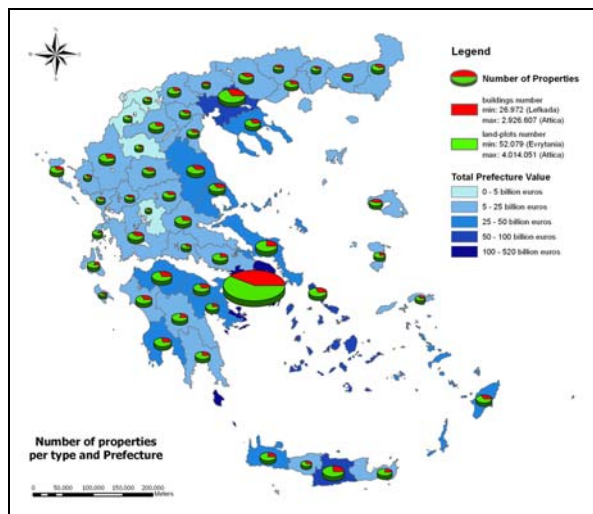


Fig. 23

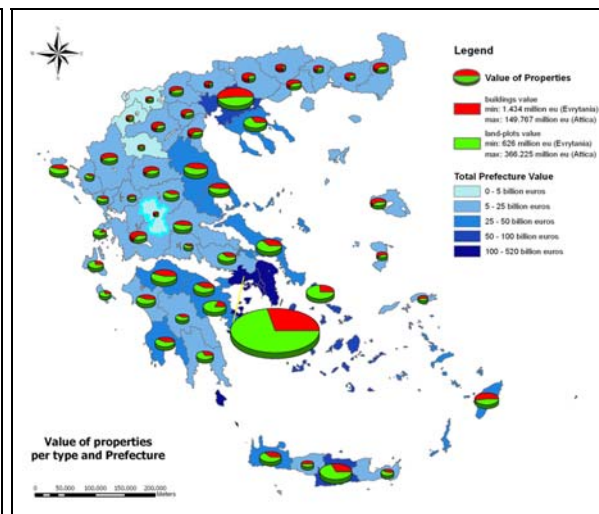


Fig. 24

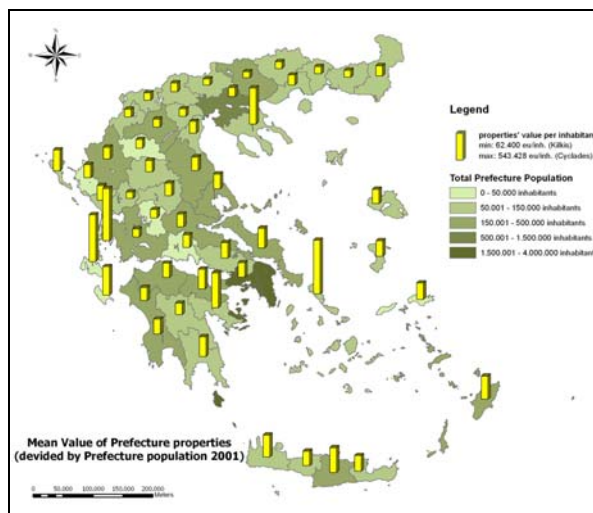


Fig. 25

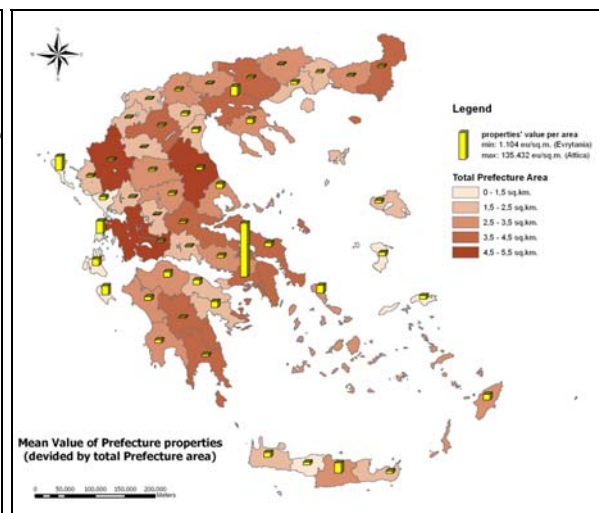


Fig. 26

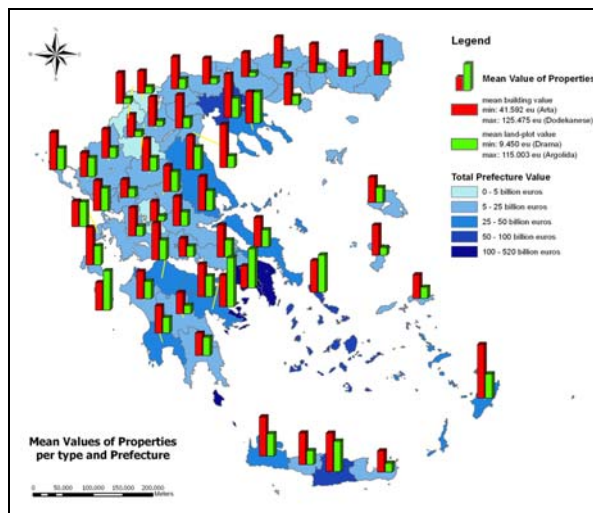


Fig. 27

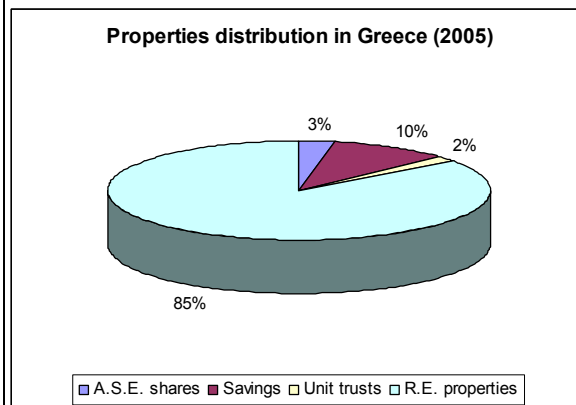


Fig. 28

6. EDUCATION

6.1 Higher Education in Technical Universities

Specialized education on Real Estate is relatively new to Hellenic Universities, introduced in 1999 to the NTUA Academic Program, although land-management and land-information courses are part of Universities' graduate programs since many years. Today, the School of Rural & Surveying Engineering of the National Technical University of Athens and the Department of Rural & Surveying Engineering of the Polytechnic School of the Aristotle University of Thessaloniki are the two Faculties that offer Real Estate related education at Higher Education level.

Specifically, in the graduate academic program of the School of Rural & Surveying Engineering of the NTUA there are mandatory and optional courses from the 1st till the 9th semester, related to real estate. "Real Estate Valuation and Land Management" is a 9th semester course of specialisation with theoretic and practical training, based on the two previous and relevant courses of "Cadastré" (7th semester) and "Land Information Systems" (8th semester). Courses on urban-planning, regional-planning, constructions regulations, spatial-planning and economics are also offered, to broaden the knowledge of the students in the field of Real Estate. In the post-graduate program "Geoinformatics" of the same school, "Valuation and Development-Exploitation of Real Estate" is a specialization course for Surveyors or not, in a wide area of Real Estate issues.

In the Department of Rural & Surveying Engineering of the AUTH, the graduate and post-graduate academic programs are more or less similarly to the above structured, with "Real Estate Valuation" and "Cadastré" being the main Real Estate courses in the graduate program and "Real Estate Valuation and GIS" in the post-graduate program.

Education and research are expanded through Master theses and Ph.D.theses in the same fields.

6.2 Center for Real Estate in the NTUA

The development of a Center for Real Estate has been a vision over the past years in the NTUA, but it is turning into a necessity as Real Estate is growing and evolving in Greece. Despite legal, financial and organizational difficulties, a committee of University members and external experienced professionals has been formed to examine the necessity, the feasibility and the framework of materialization and operation of this Center.

The original proposition of the School of Rural & Surveying Engineering to the Educational Board of the NTUA is aiming for a Center of multilevel research and educational activities, providing graduate & postgraduate programs, post-doctorate support, summer professional schools, lectures, seminars & congresses, international co-operations, bridging of professional and educational knowledge and practice and organization, standardization & indexing of real estate market data.

REFERENCES

- Bank of Greece, 2000-2007, "Bulletins of Conjunctural Indicators"
- Dimopoulou E, Labropoulos T, Nikolaidou V, Zentelis P, 2003, "Comparative Analysis of NSDI Policies in Greece & Cyprus - Two different systems within the EU", Proceedings of the 2nd FIG Regional Conference "Urban - Rural Interrelationship for Sustainable Environment", Marrakech – Morocco, December 2nd-5th, 2003,
- Labropoulos T, Dimopoulou E, Zentelis E, 2003, "The necessity of developing a CAMA system for the Real Estate Market in Greece", Proceedings of the UN/ECE WPLA & FIG Com 3 & Com 7 joint workshop "Spatial Information Management for Sustainable Real Estate Market. Best Practice Guidelines on Nation-wide Land Administration", Athens – Greece, May 28th-31st 2003,
- Labropoulos T, Mytta I, Psychogios A, Zentelis P, 1999, "Development of a land information system for Real Estate Investment. Application: Investment guide on tourist industry", Proceedings of the FIG Working Week & SURVEY '99, June 1st-4th 1999, Sun City - South Africa
- National Statistical Service of Greece, 2006, "Greece in figures 2006"
- Potsiou C, Zentelis P & Labropoulos T, 2002. *"Mass Valuation in Greece. Monitoring tax and Market Values"*, UN/ECE WPLA Proceedings of the workshop on Mass Valuation for Taxation Purposes, Moscow, Russian Federation, June 2002
- Zentelis P, 2001. *Real Estate: Value-Assessment-Development-Investment-Management*. Papasotiriou ed. ISBN: 960-7510-74-7 GR
- Zentelis P, Labropoulos T, 2004, "Impact of the Athens 2004 Olympic Games on Real Estate Values in Greece". *Journal of Property Tax Assessment & Administration (IAAO)*. Volume 1, Issue 3, 2004, Pages 5-20
- "Real Estate & Development" RED magazine, 2000-2007
- <http://www.ase.gr>, The Athens Stock Exchange website
- <http://www.epra.com> The European Public Real Estate Association (EPRA) & The National Association of Real Estate Investment Trusts (NAREIT) website
- <http://www.statistics.gr>, The National Statistical Service of Greece website

BIOGRAPHICAL NOTES

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Surveyor Engineer. Ph.D. Student in “Automated Mass Appraisal Systems”. He has 10 years of academic teaching and research background & 11 years of professional experience in Valuation, Real Estate, GIS applications, Civil Planning and Surveying. He has 27 publications in national & international conferences and magazines and vast experience in computers, technical software, etc. He is a member of the Hellenic Institute of Valuation (HIV), the Hellenic Geographic Information Society (HellasGIs) and various other professional groups and committees.

Assoc. Prof. Panagiotis Zentelis

Dr. Surveying Engineer & Civil Engineer. Associate Professor of the National Technical University of Athens - School of Rural & Surveying Engineers, in the fields of “Cadastre”, “Land Information Systems” & “Real Estate”. He has 85 Publications & Announcements in various national & international scientific magazines & conferences. His academic experience is dating since 1970 through teaching in various graduate and post-graduate courses, seminars, diploma theses and Ph.D. theses, along with research activities and vast professional experience in relative fields since 1968. He is a member of the Hellenic Society of Photogrammetry and Remote Sensing, the Association for Geographic Information (AGI), the International Association of Assessing Officers (IAAO), the Urban and Regional Information Systems Association (URISA), the Hellenic section of the International Council of Monuments and Sites (ICOMOS-Gr), the Hellenic Institute of Valuation (HIV), the Urban Land Institute (ULI Europe) and numerous committees, working and task groups.

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