

The housing market is no more the growth locomotive for the Greek economy, unless policies to boost demand and reduce oversupply are implemented

October 2016

Contents

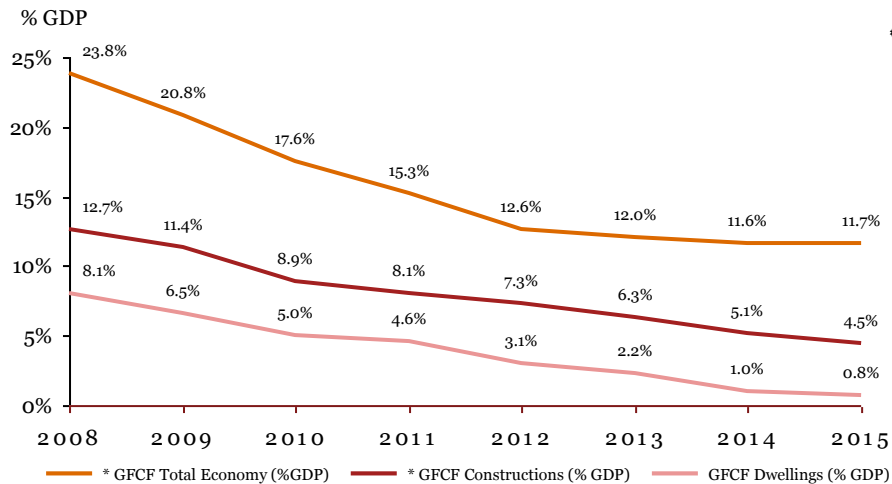
Section		Page
1	The Greek housing market	5
2	Supply and demand in the housing market	16
3	Towards a new equilibrium	24
4	Strengthening the housing market	32

Executive summary

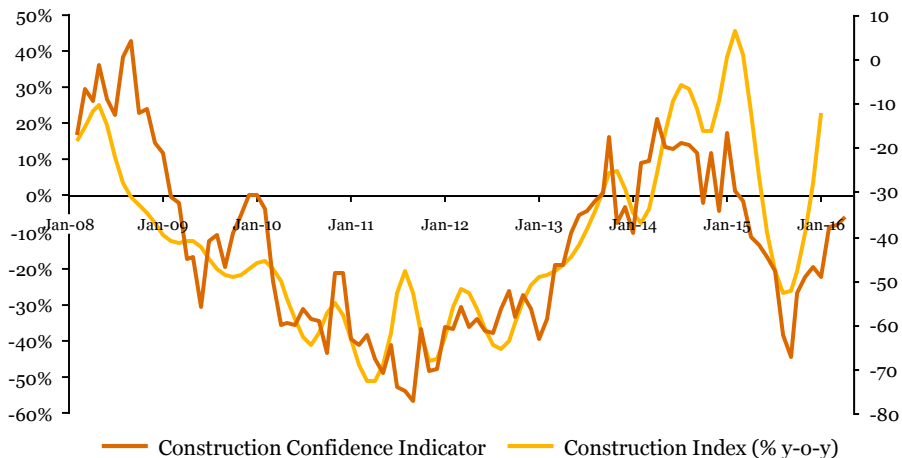
- The Greek housing market, traditionally serving as the growth locomotive of the Greek economy, is unlikely to play this role to exit the crisis
- The Greek housing market has suffered a **significant slowdown**; between 2008 and 2015 €18bn., or 8.2% of GDP, investments in construction were lost within 2008-2015, slowing further down the economic activity
- Since 2008 the number of housing transactions fell by 72%, while house prices fell by 41%, especially in the urban centers
- Property taxes rose by **6 times comparing to 2010**, representing almost 2% of the disposable income per capita
- The **Greek housing market currently is an “outlier”** of the European markets, displaying a 30% decline in house prices within 2010-2015. While house prices in Spain and Italy seem to have adjusted to the economic conditions, in Greece they have become slightly cheaper to the disposable income
- The major factors that shape the housing market dynamics are the economic growth, the dwelling stock, the mortgage loans and the taxes on immobile property
- According to a realistic scenario for the evolution of the Greek economy, **with GDP per capita returning to pre-crisis levels in around 2030**, it is estimated that:
 - **demand and supply in the Greek housing market will converge at around 2047** due to increased house supply, high taxation and shortage in mortgage lending
 - **average house price will increase by 0.6% annually**, reaching the levels of 2002-2008 period after 2050
 - **investments in the housing market will remain in low levels**, specifically at €4.5 bn annually, with the investment gap having a long duration
- For the faster recovery of the Greek housing market, a real **annual growth of at least 3.5%** would be required for a long time
- In order to facilitate demand, **property taxes should gradually decrease**, while **mortgage lending** should follow the growth rate of the economy
- To accelerate the re-balancing of the market it is necessary to:
 - reduce the housing oversupply, through massive redevelopment of part of the dwelling stock, along with infrastructure and technology investments, and
 - deal with fragmented ownership, through the creation of a «Land Bank»
- The **investment gap** created by the downturn of the housing market, **estimated at €14bn annually**, should be covered from other sectors of the economy in order to report growth levels of 3%-4%

The Greek housing market

Investments in housing shrunk after 2008



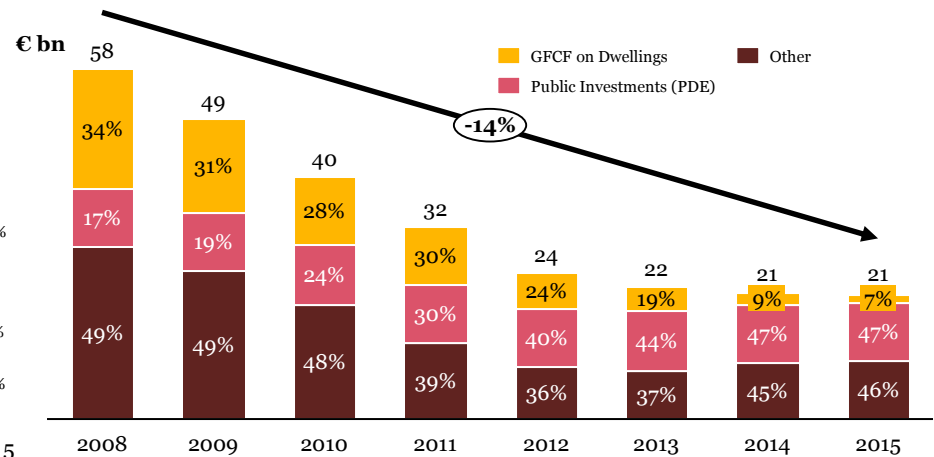
Source : European Commission (AMECO)



Source: Eurostat, DG ECFIN, PwC analysis

PwC

* GFCF: Gross Fixed Capital Formation

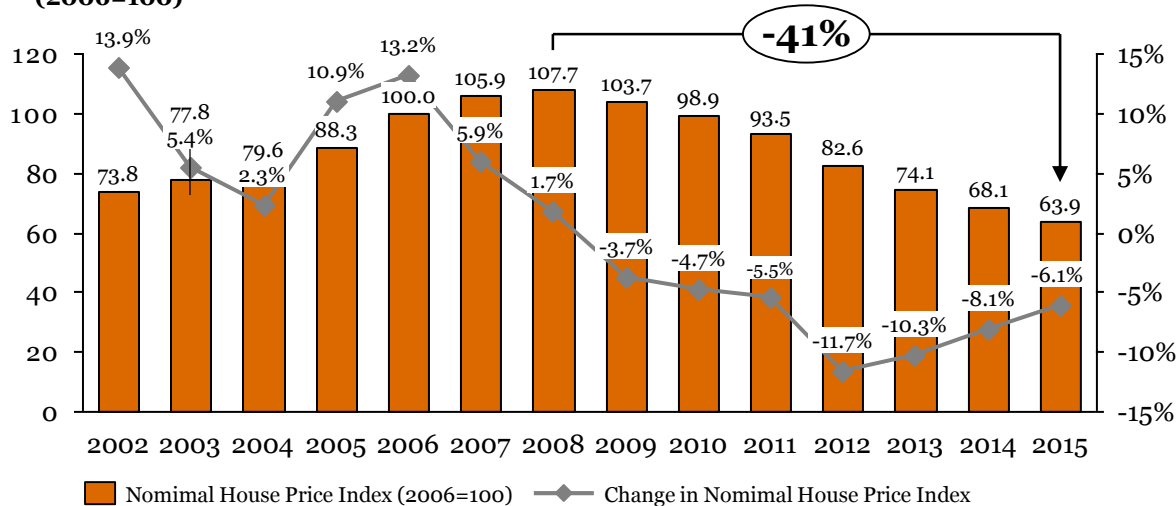


Source: European Commission (AMECO), Budget Executions, 2016 Budget Report

- The recession affected severely the construction industry
- Within 2008-2015, € 18bn (or 8.2 % of GDP) investments in construction were lost, slowing further down the economic activity
- The construction industry in 2015 (Gross Fixed Capital Formation-GFCF) corresponded only to 0.8% of GDP and 7% of the total economy's GFCF
- The restraint of the two-digit downward fall in the construction index in 2015, contributed to the small increase of the construction confidence index by 1.6pp monthly and 4.1 pp annually
- The downward course of the housing and construction markets in general is diminishing, leaving room for hope for a gradual recovery

House prices dropped by almost 41%, especially in the urban centers, between 2008-2015

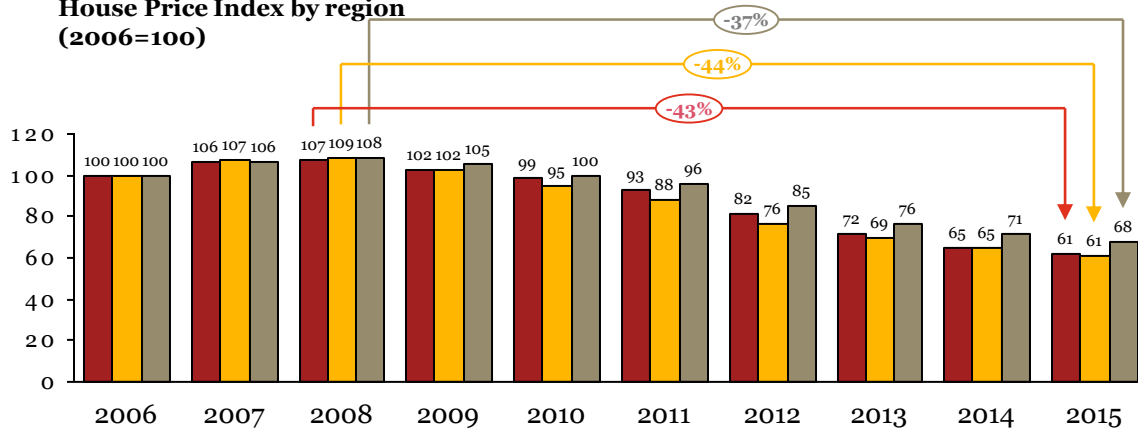
**Nominal House Price Index
(2006=100)**



Source : European Mortgage Federation

- Historically, nominal house prices in Greece rose significantly until 2007. Since 2008, the increase in house prices started to shrink, while from 2011 onwards the drop in prices was over 5% p.a.
- The house price fluctuations reflect the drop in demand, whereas supply continued to expand

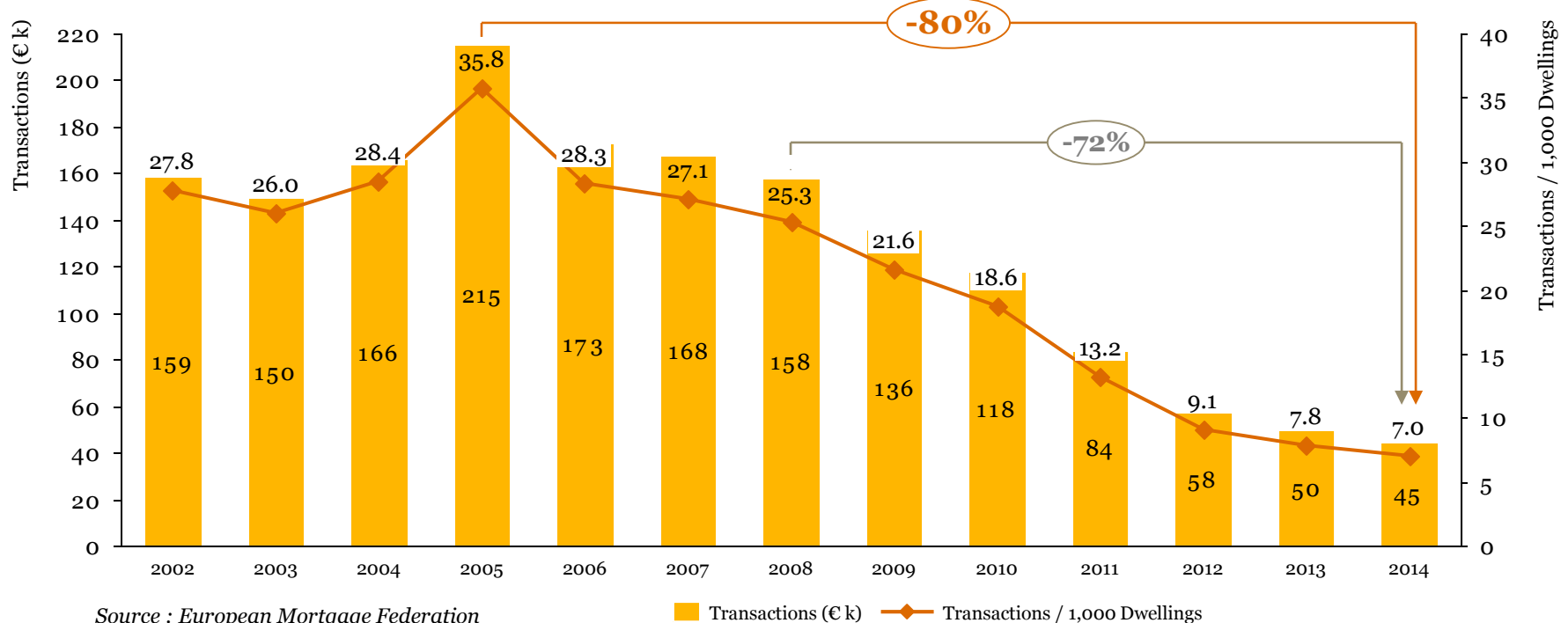
**House Price Index by region
(2006=100)**



- The house prices drop within 2008 – 2015 was deeper in the two large urban centers compared to other urban areas

The number of housing transactions (property deals) to the dwelling stock fell by 72% since 2008

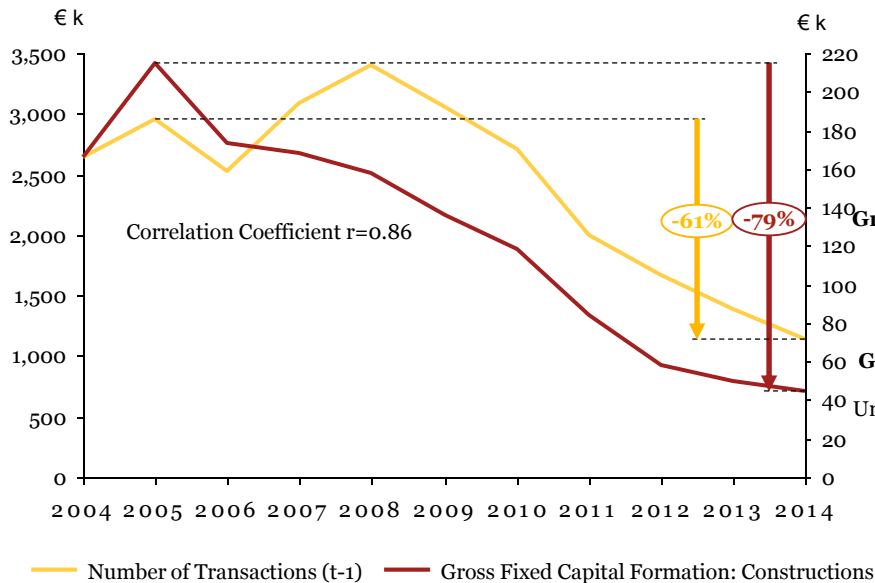
Transactions evolution



- From 2008 to 2014, transactions dropped on average by 19% per annum
- According to BoG data, in 2014 only 17% of the transactions was settled through bank debt (82% in 2009)
- The share of transactions in the total dwelling stock shrunk by 80% between the top in 2005 and 2014, and by 72% from 2008 onwards

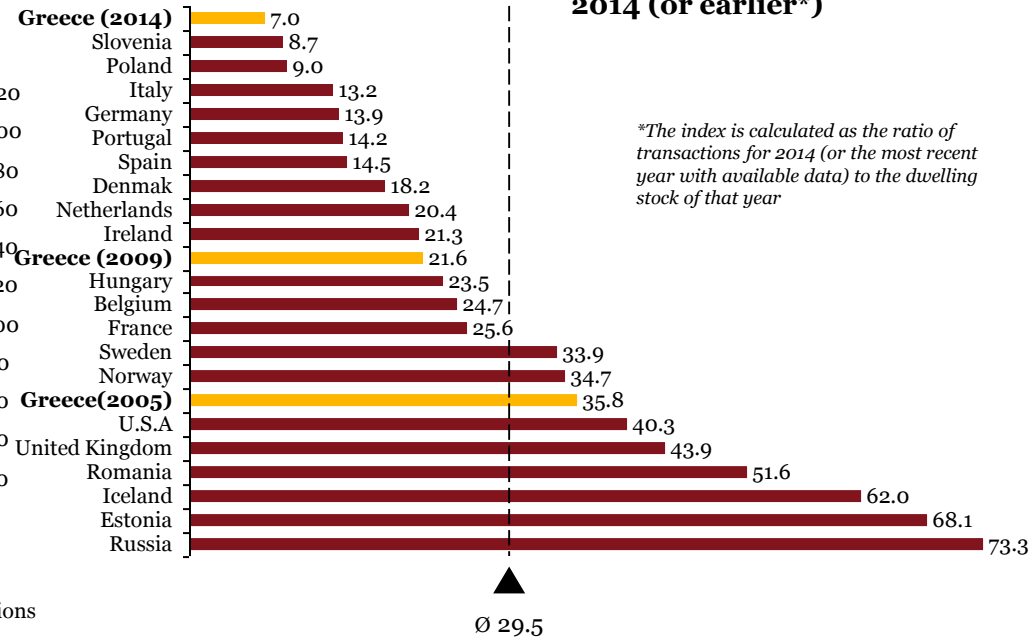
Greece has currently the lowest transactions per dwelling stock ratio among OECD countries

Evolution of transactions and investments



Source : European Mortgage Federation

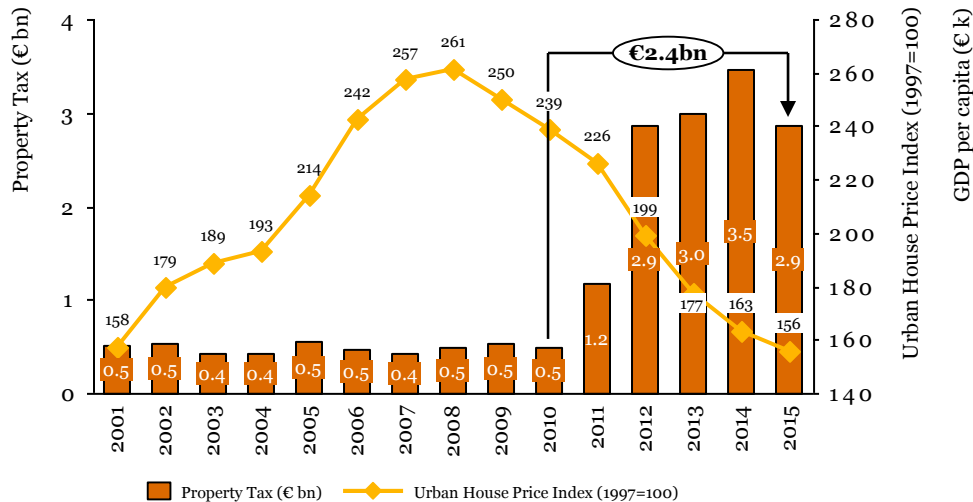
Transactions to Dwelling Stock Index 2014 (or earlier*)



Source : European Mortgage Federation

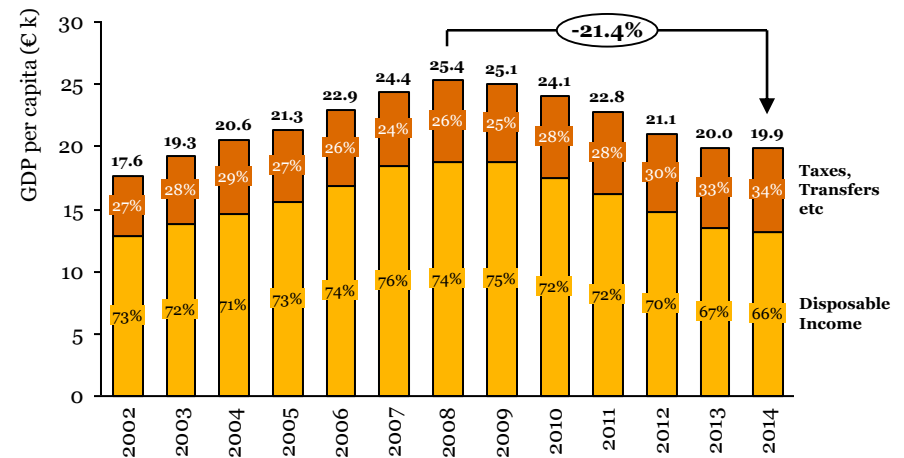
- The decline in investments caused by the financial crisis, has direct impact on housing transactions
- The lowest transactions per dwelling stock in 2014 are observed in Greece, with 7 transactions per 1.000 dwellings
- Greece, at the beginning of the crisis, was closer to OECD countries average and over the developed economies such as Germany and Denmark, whereas before the crisis, Greece exceeded the average transactions to stock ratio

Real estate taxes rose 6 times comparing to 2010

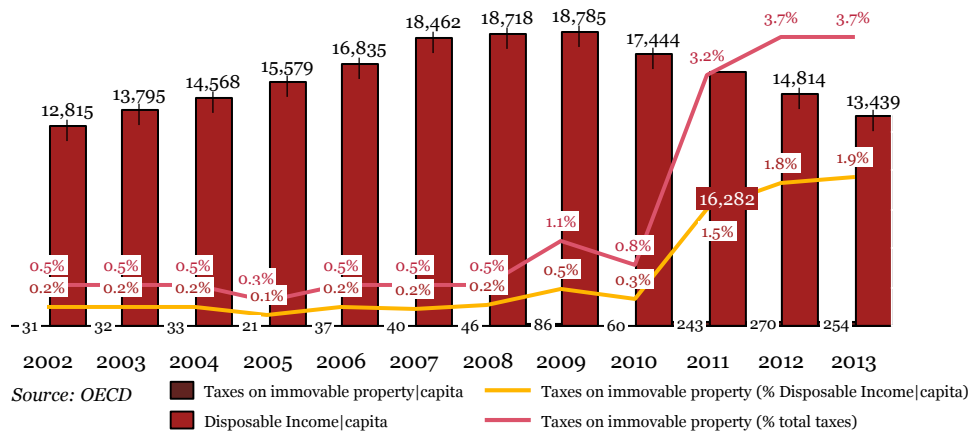


Source: Budget Executions 2001-2014, Bank of Greece

Property tax includes, besides the real estate taxes, also inheritance fees and taxes, as well as parental donations



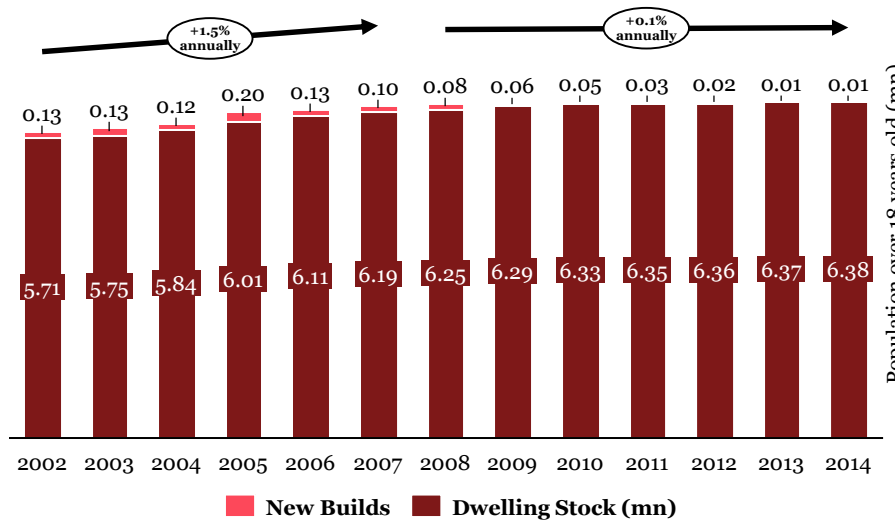
Source : European Mortgage Federation



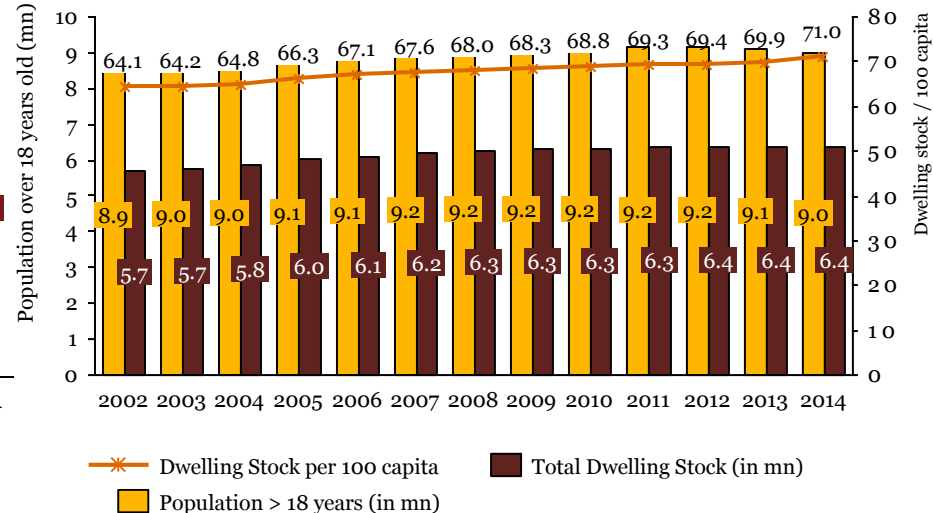
Source: OECD

- Real estate property taxes rose by €2.5 - €3 bn during the five year period (2010-2015)
- The real estate property tax represents 4% of total taxes and almost 2% of the disposable income per capita
- GDP per capita fell by 21% between 2008 and 2014, but taxes on income per capita rose from 26% to 34%

The existing dwelling stock is still expanding, albeit at a very slow rate



Source: European Mortgage Federation



Source: European Mortgage Federation, Eurostat

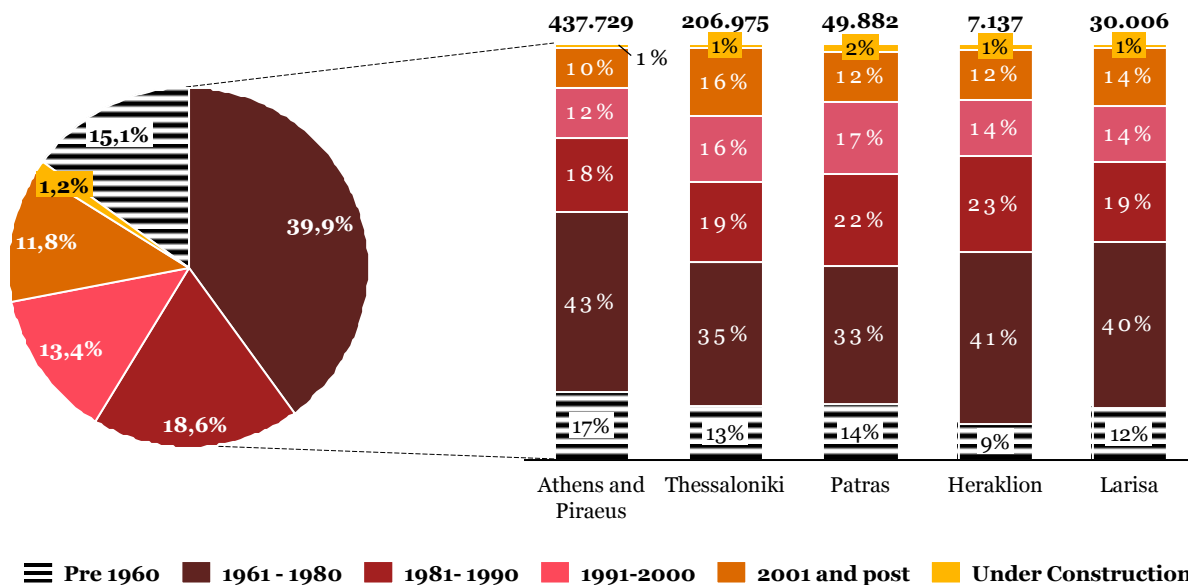
- The **oversupply** lies at the center of the real estate crisis in Greece, which is the result of systematic investments in the sector
- Indicatively, from 2002-2007, the housing constructions were rising at a rate of 1.5% per annum (reaching 800k new buildings), while from 2008-2014 the increase in new builds contributed to the real estate crisis, blocking the way out of it, despite having decreased at a slow rate, by 0.1% p.a. (reaching 264k)
- The existing dwelling stock reaches 6.4 million houses while it corresponds to less than 9 mn people (population over 18 years)
- In 2002, 64 house properties per 100 people, while in 2014 this rose to 71 properties per 100 people (or 1.7 per family*), reflecting the increase of house availability during this period. The corresponding ratio in other sample countries rose from 55 houses in 2002 to 60 houses in 2014
- The oversupply of houses is difficult to be absorbed, especially in a period of decreasing disposable income and limited mortgage lending
- There are no signs of scraping part of the dwelling stock due to aging stock or lack of demand

*According to OECD data, the average family in Greece consists of 2.4 persons

Old residences account for a significant part of the housing oversupply

Age of housing stock
Urban Areas*

Age of housing stock by Urban Area*



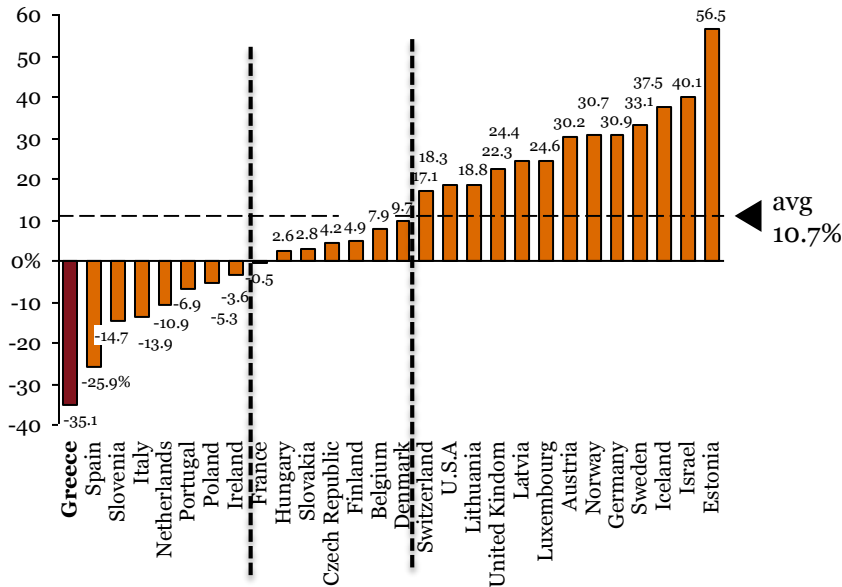
- The dwelling stock, according to the 2011 census, reached 6.4mn houses
- Approximately 55% of the urban buildings in Greece were built before 1980 and 13% post 2001
- The stock in urban centers is younger except from the one in Athens and Piraeus

Source: ELSTAT, Inventory of buildings and construction (2011)

* As urban areas were classified: the regional unit of central, northern, western and southern Athens and the regional unit of Piraeus as "Athens and Piraeus", the regional unit of Thessaloniki, and the municipalities of Patras, Heraklion and Larisa

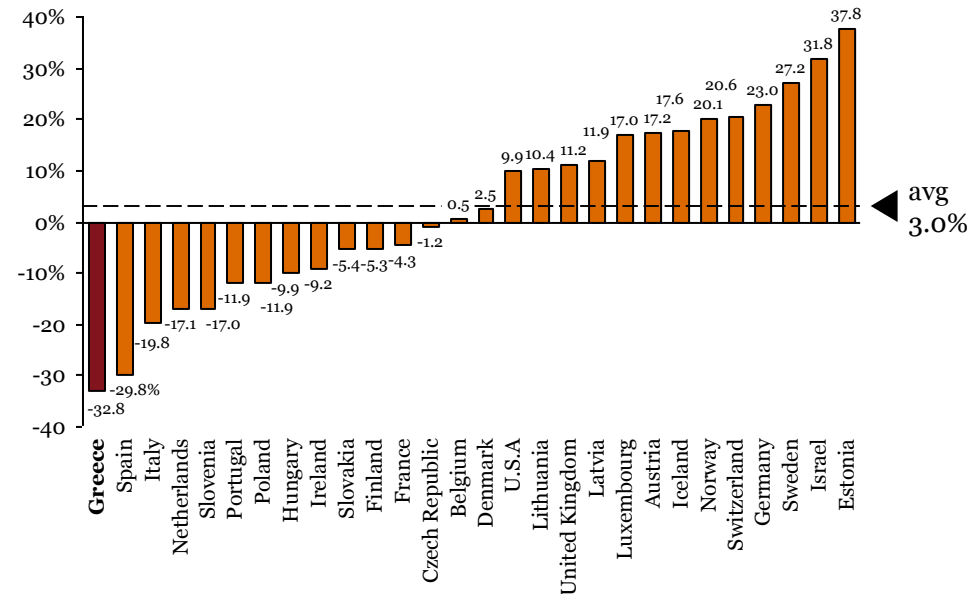
The Greek housing market is an “outlier” of the European markets

Nominal House Price Index 2015
(seasonally adjusted, % change 2010-2015)



Source: OECD

Real House Price Index 2015
(seasonally adjusted, % change 2010-2015)

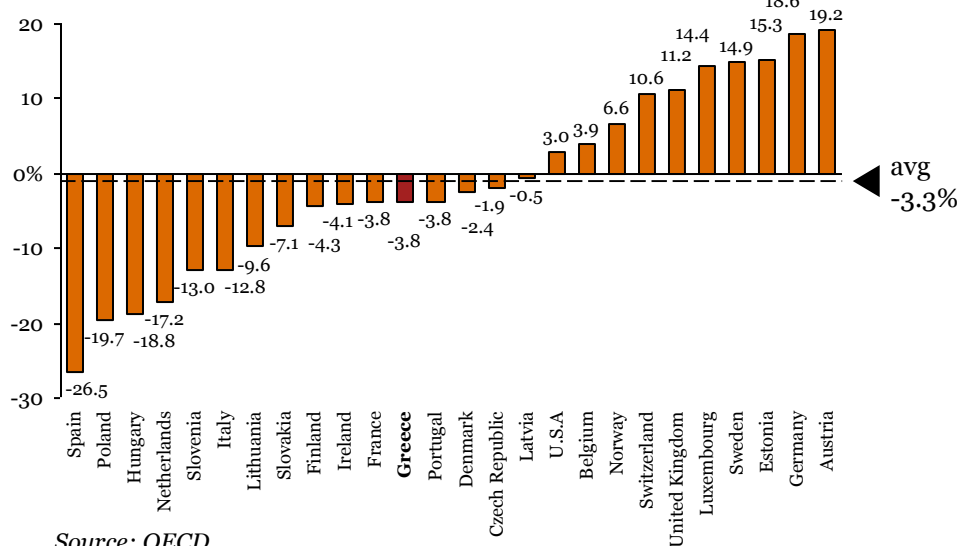


Source: OECD

- In contrast to the significant increase in nominal house prices (+10.7%), average real house prices in Europe rose by 3% during the same period
- Both real and nominal house prices in Greece marked a 30% drop followed by Spain

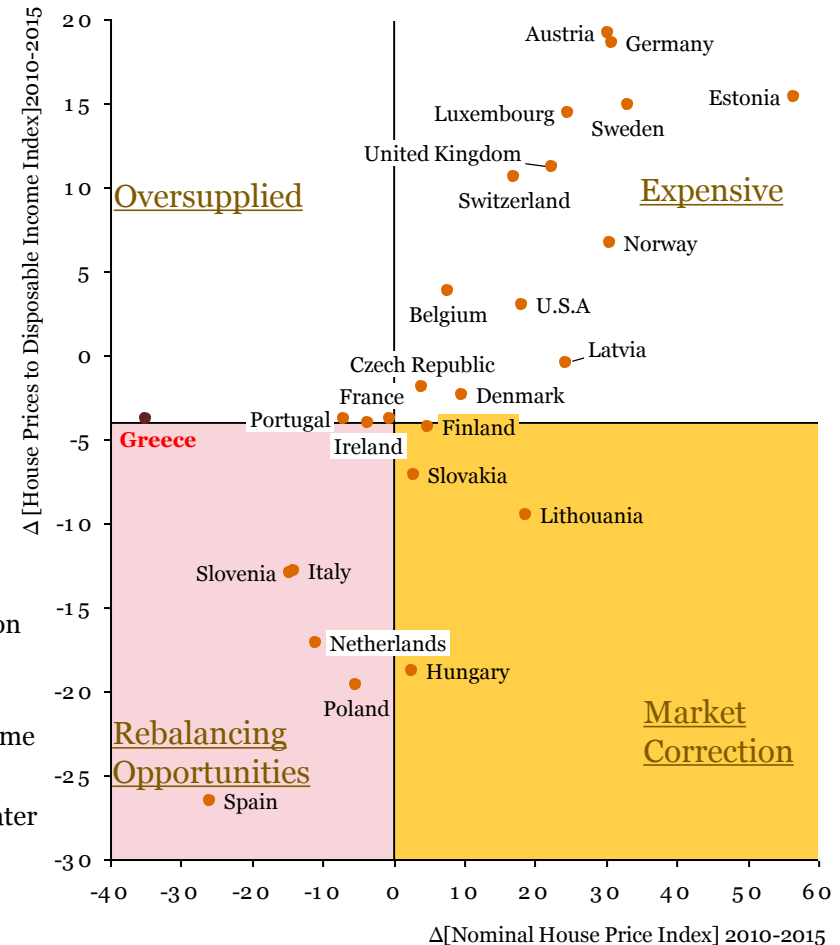
During the crisis differences in house prices between countries widened, while houses became slightly cheaper relative to disposable income

House Price to Disposable Income Index
Nominal House Prices to Disposable Income (change 2010-2015)



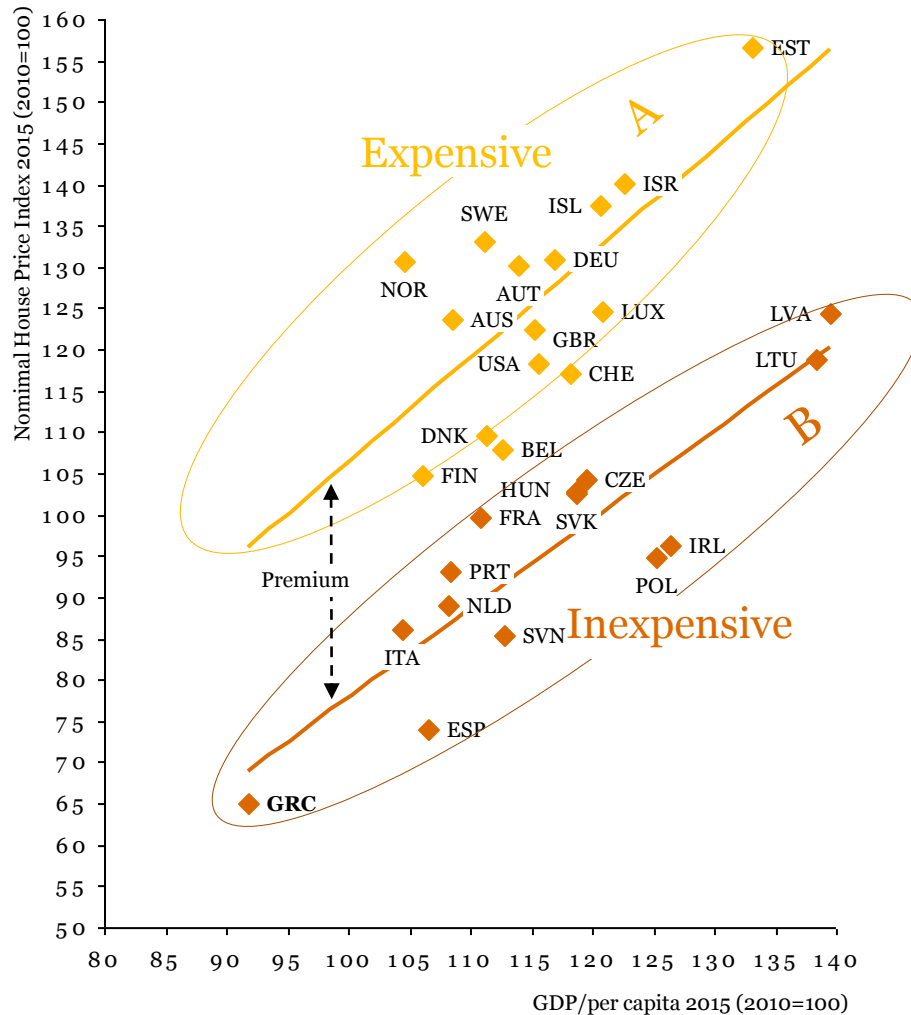
Source: OECD

- During the period 2010-2015, houses in OECD countries were cheaper by 3% on average in relation to the disposable income
- While house prices in Spain and Italy seem to have adjusted to the economic conditions, in Greece they have become slightly cheaper to the disposable income
- In Greece, the decline of the housing market coincided with the decline in disposable income, whereas during 2010-2015 the fall in house prices was greater than the decrease in disposable income
- Greece, Portugal, Ireland and France show signs of oversupply
- Slovakia, Hungary, Finland and Lithuania might be ahead of a house prices correction



Source: OECD, PwC analysis

House prices are driven by GDP per capita, but there are structural differences between countries



- The price elasticity in respect to the rise of disposable income is not the same for all countries
- Greece as well as a number of other European countries, lie in systematically lower house price levels than another group of countries
- The house price differences between the two groups seem to be permanent and widening

Group A			
House Price Index = $\alpha + \beta$ (GDP/capita)			
	Coefficient	t Stat	Adjusted R ²
Constant	-19,88	-0,45	0,41
GDP / capita	1,26	3,26	

Group B			
House Price Index = $\alpha + \beta$ (GDP/capita)			
	Coefficient	t Stat	Adjusted R ²
Constant	-21,50	-0,97	0,70
GDP / capita	1,01	5,42	

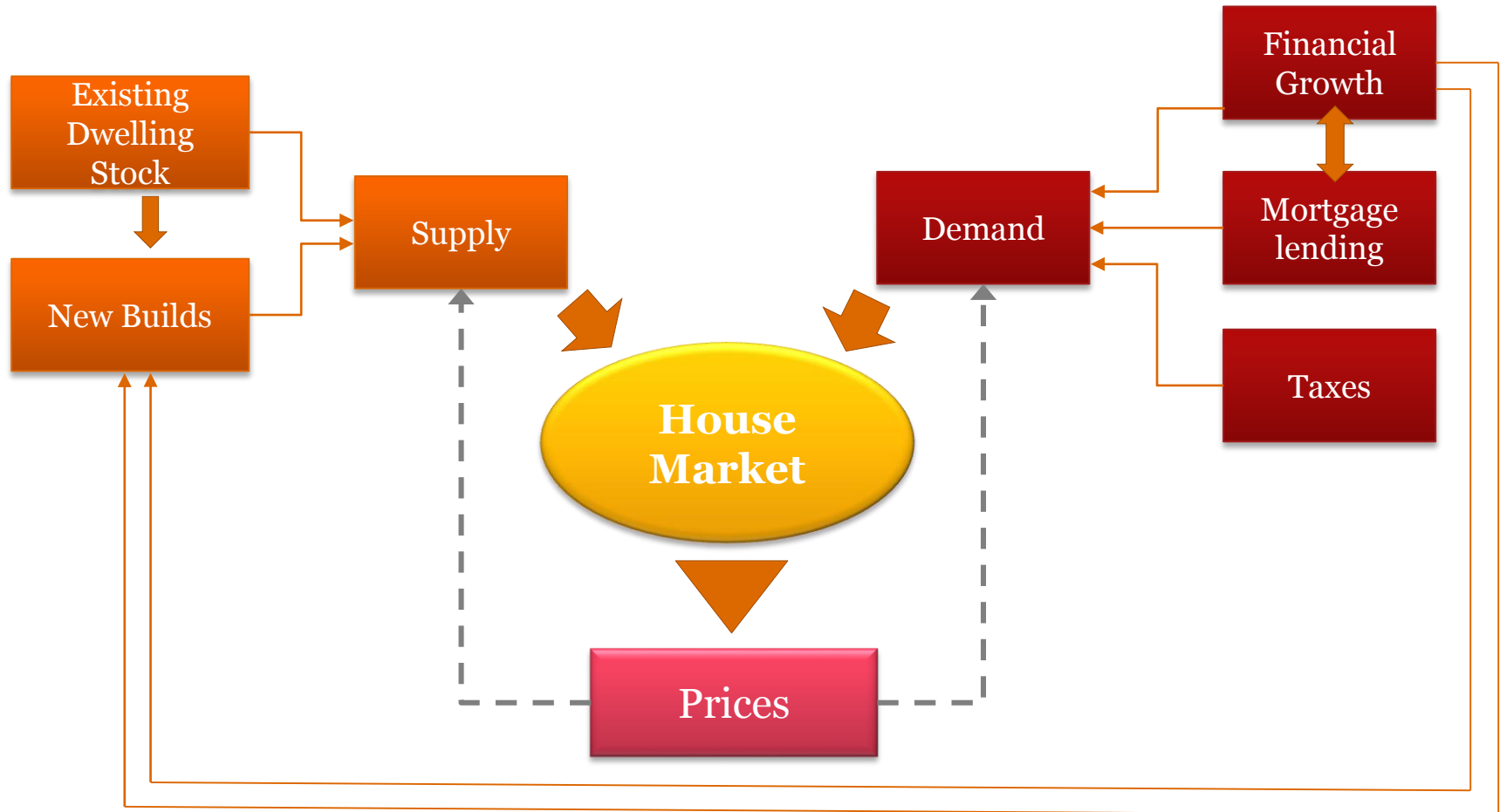
Summary – the housing market, suffered an intense decline in the course of the economic crisis, driving down prices and investments

- Investments in real estate shrunk dramatically. Indicatively, between 2008-2015, €18bn., or 8.2% of GDP, investments in construction were lost within 2008-2015, slowing further down the economic activity
- House prices dropped more than 5% p.a. from 2011 onwards, while the total house prices contraction accounted for 41%, especially in the urban centers, during the period 2008 - 2015
- Transactions volume (property deals) to dwelling stock dropped about 19% p.a. from 2008 to 2014, while shrunk by approximately 72% in total
- Greece has the lowest transactions per dwelling stock among OECD countries, while before crisis she was above average
- The taxation of real estate property rose by 6 times comparing to 2010 to almost € 2.5 - € 3bn
- House supply is dominated by the existing dwelling stock, 55% of which has been built before 1980. The existing dwelling stock continues to expand at a slower pace
- In 2002, there were 64 house properties per 100 people, while in 2014 this rose to 71 properties per 100 people (or 1.7 per family*), reflecting the increase in available houses during this period
- The Greek housing market is currently an “outlier” of the European markets. During the period 2010-2015, the Greek house prices displayed the greater decline among OECD countries
- During the crisis distances in house prices between countries widened, while houses became slightly cheaper to the disposable income of each OECD country
- House prices are driven by the increase in a country’s wealth, but there are structural differences between countries, with some of them being systematically more expensive than others

**According to OECD data, the average family in Greece consists of 2.4 persons*

Supply and demand in the housing market

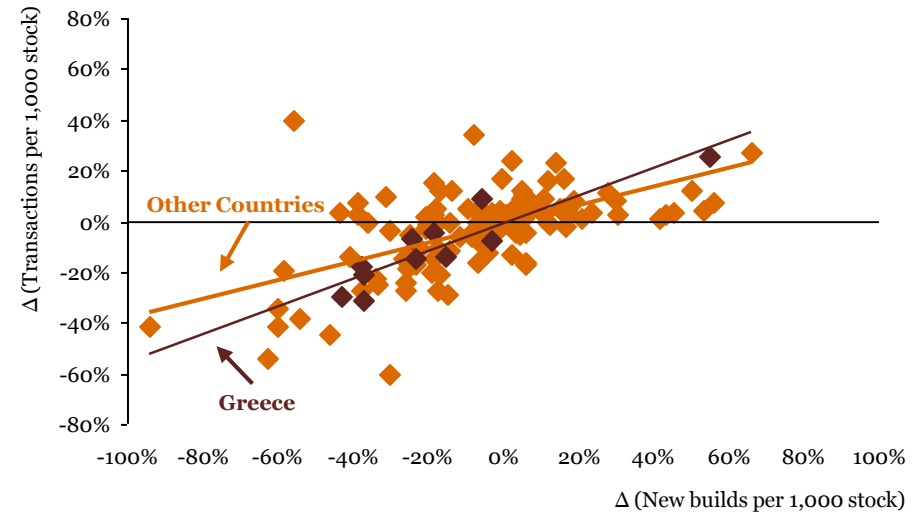
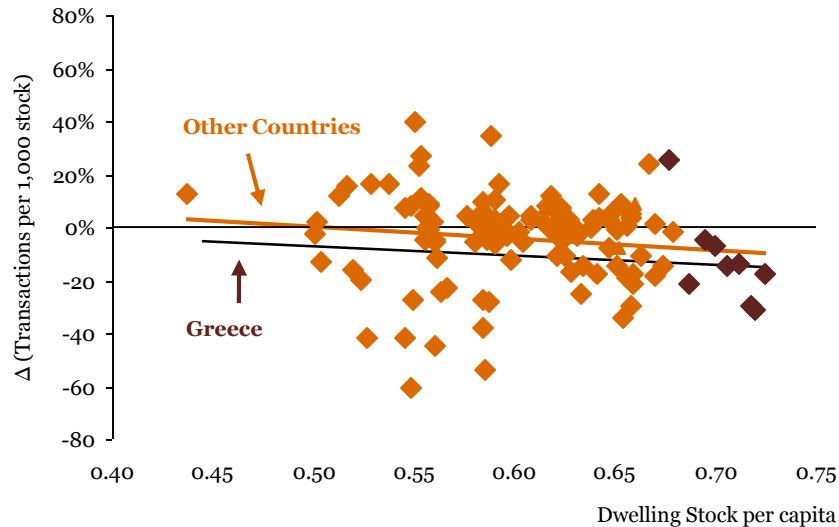
Market equilibrium determines house prices



From the supply side, the main drivers are the dwelling stock and the new builds, while demand is a function of economic growth, mortgage lending and real estate taxes

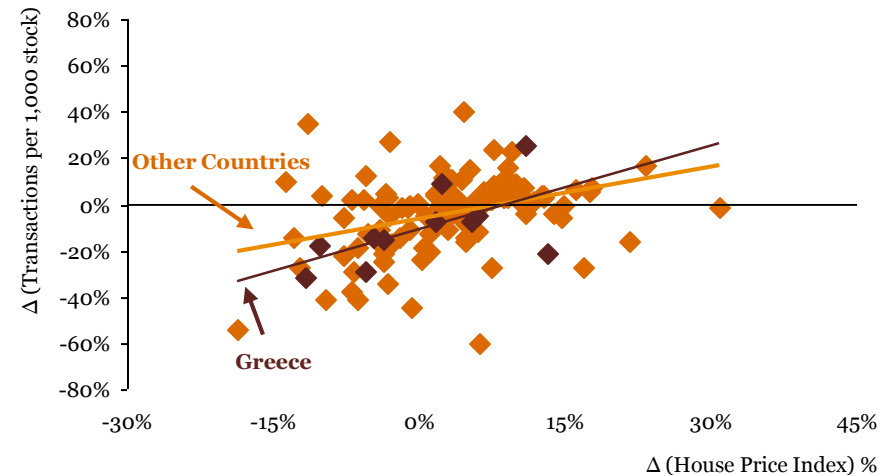
Supply

Supply of houses is driven by new builds, while restrained by the existing dwelling stock



$$\Delta \text{ (Transactions per 1,000 stock)} = \beta_1 \text{ Dwelling Stock (per capita)} + \beta_2 \Delta \text{ (New builds per 1,000 stock)} + \beta_3 \Delta \text{ (House Price Index)}$$

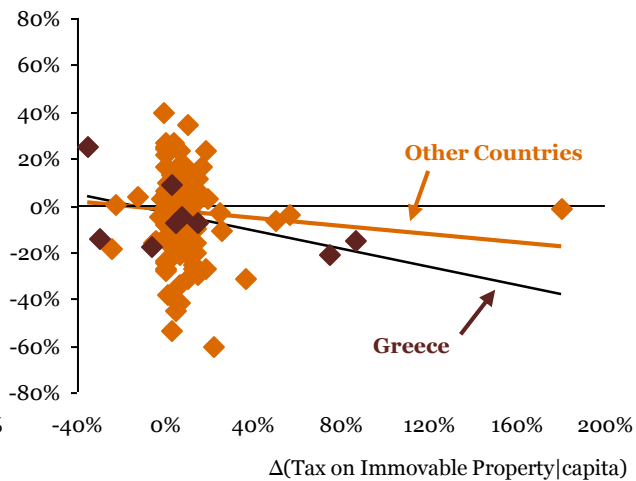
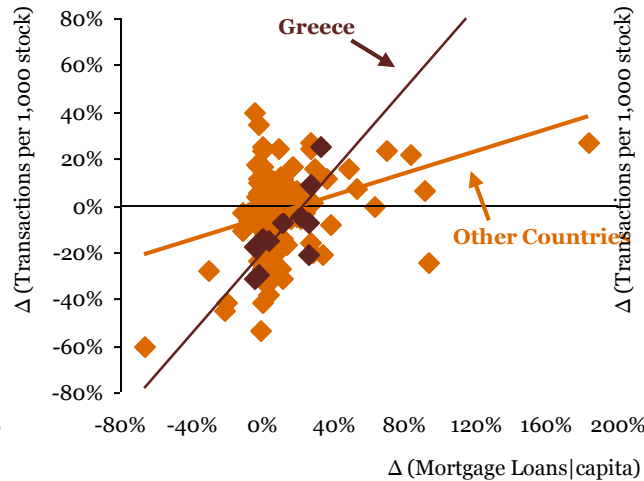
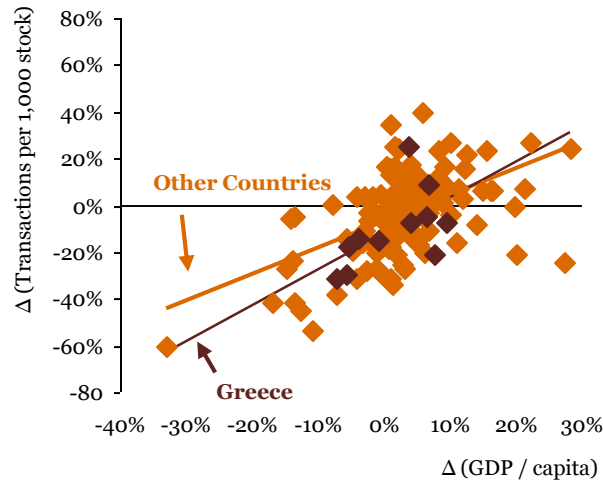
	All Countries		Greece	
	Adj. R ² :0.38		Adj. R ² :0.74	
	Coefficients	t Stat	Coefficients	t Stat
Dwelling Stock (per capita)	-0.03	-1.36	-0.02	-0.61
Δ (New builds per 1,000 stock)	0.34	6.56	0.50	5.04
Δ (House Price Index)	0.16	0.95	0.29	0.89



Source: European Mortgage Federation, PwC analysis

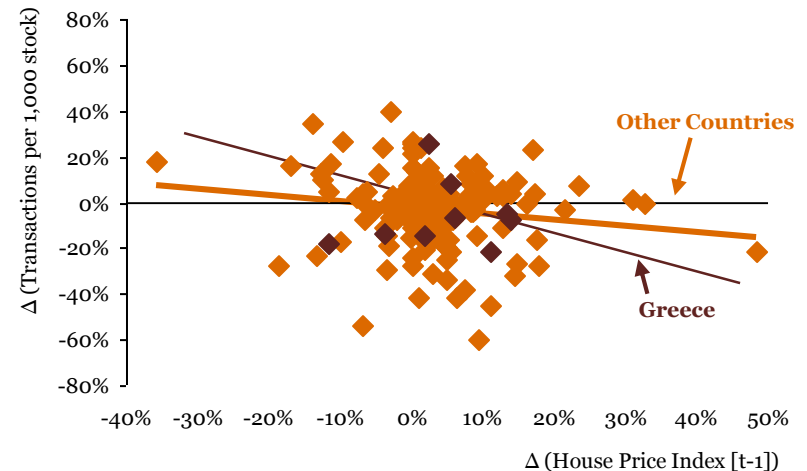
Demand

Demand is strongly driven by GDP per capita and mortgage lending, while the increase in property taxes is having a significant negative effect



$\Delta (\text{Transactions per 1,000 stock}) = \alpha + \beta_1 \Delta (\text{GDP|capita}) + \beta_2 \Delta (\text{Mortgage Lending|capita}) + \beta_3 \Delta (\text{Tax on Immovable Property|capita}) + \beta_4 \Delta (\text{House Price Index [t-1]})$

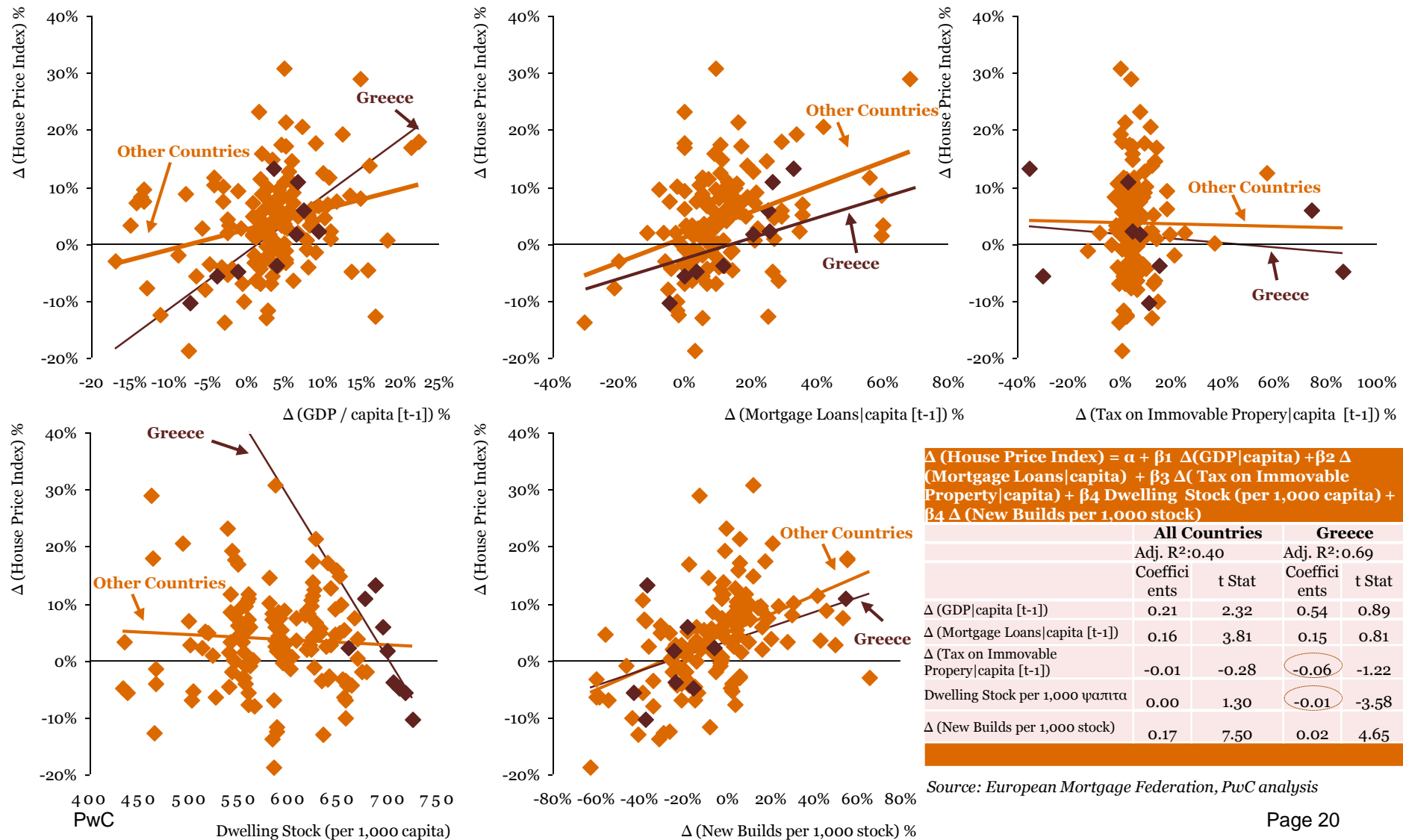
	All Countries		Greece	
	Adj. R ² :0.27		Adj. R ² :0.53	
	Coefficients	t Stat	Coefficients	t Stat
$\Delta (\text{GDP capita})$	1.04	6.26	1.62	1.70
$\Delta (\text{Mortgage Lending capita})$	0.23	4.72	0.87	3.49
$\Delta (\text{Tax on Immovable Property Capita})$	-0.11	-3.24	-0.29	-2.33
$\Delta (\text{House Price Index [t-1]})$	0.00	-4.60	-0.23	-0.22



Source: European Mortgage Federation, PwC analysis

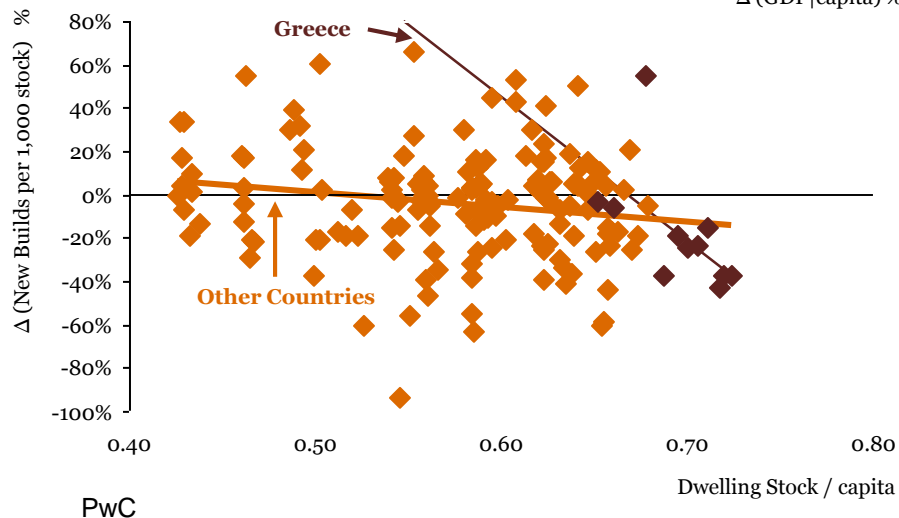
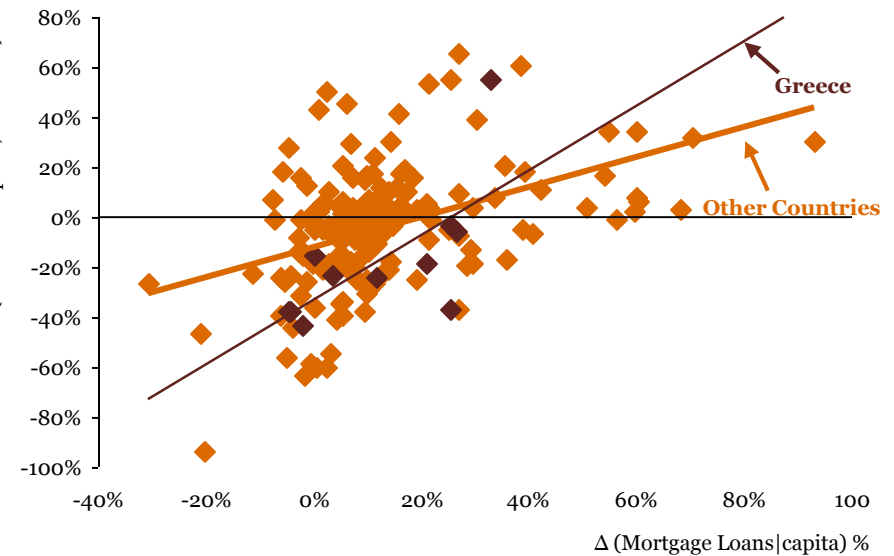
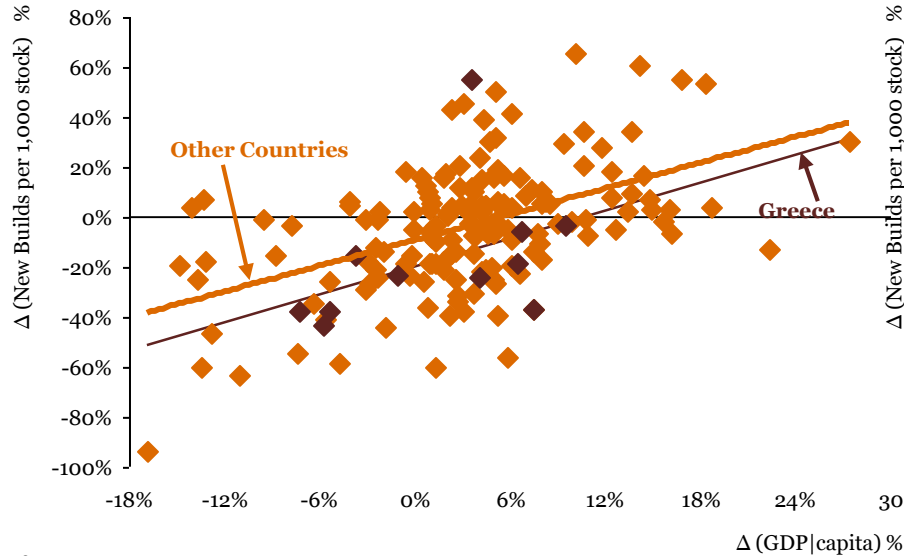
House price formation

House prices are affected by GDP per capita, mortgage lending and new builds, while in Greece the excessive dwellings stock and property taxes are affecting them negatively



New housing builds

The number of new builds is primarily driven by GDP per capita and mortgage lending, while it is constrained by the dwelling stock

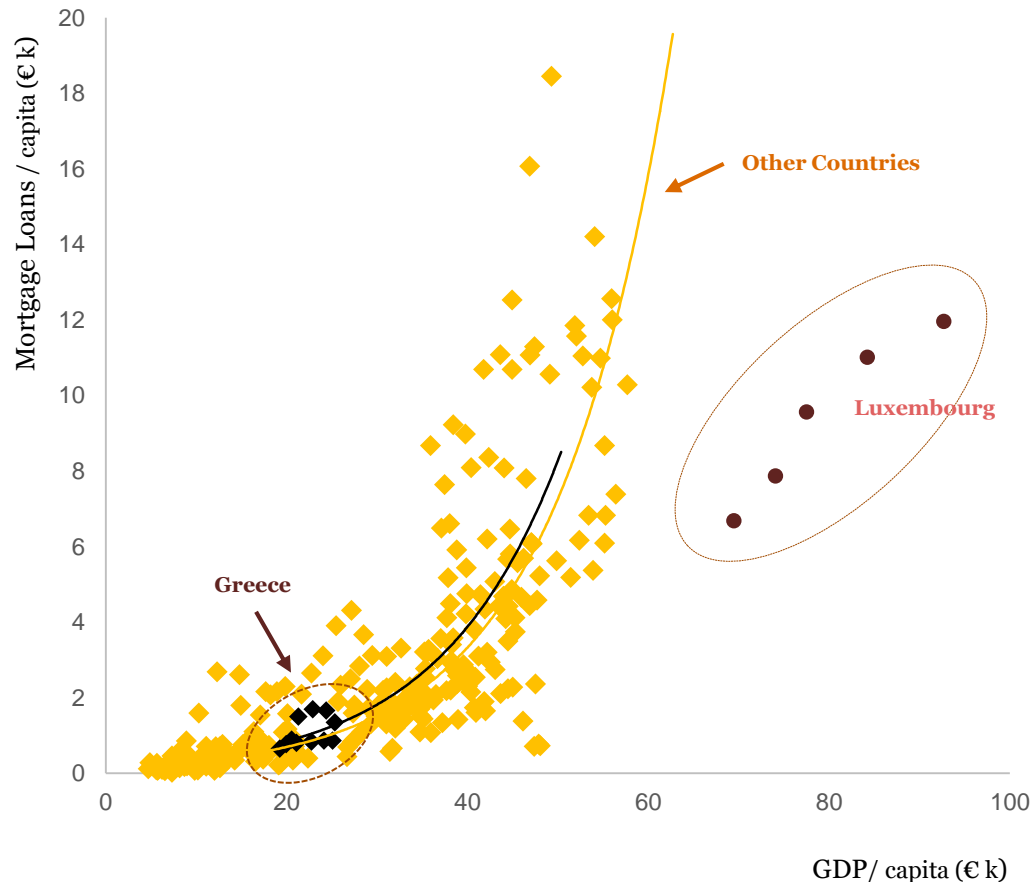


$$\Delta (\text{New Builds per 1,000 stock}) = \alpha + \beta_1 \Delta (\text{GDP|capita}) + \beta_2 \Delta (\text{Mortgage Loans|capita}) + \beta_3 \text{Dwellings stock / capita}$$

	All Countries		Greece	
	Adj. R ² :0.26		Adj. R ² :0.64	
	Coefficients	t Stat	Coefficients	t Stat
$\Delta (\text{GDP capita})$	1.33	4.54	1.12	0.69
$\Delta (\text{Mortgage Loans capita})$	0.28	2.37	2.39	3.37
Dwelling Stock per capita	-0.67	-2.47	-6.66	-2.17

Source: European Mortgage Federation, PwC analysis

In Greece, mortgage lending is not strongly correlated to economic growth



- The elasticity of mortgage credit to GDP changes is three times higher in European countries than in Greece

$$\ln(\text{Mortgage loans / capita}) = \alpha + \beta_1 \ln(\text{GDP/capita})$$

	All countries		Greece	
	Adj. R ² :0.76		Adj. R ² :0.15	
	Coefficients	t Stat	Coefficients	t Stat
Constant	3.07	161.43	3.1	116.77
GDP/capita	0.42	30.15	0.14	1.67

Source: European Mortgage Federation, PwC analysis

Summary – GDP per capita, mortgage lending, taxes and the excessive dwelling stock drive the Greek housing market

- From the **supply** side, the transactions' volume is driven by the number of new builds, while it is retained with the existing stock
- **Demand** is strongly driven by GDP per capita and mortgage lending, while the increase in property taxes has a negative effect
- **House prices** are positively driven by changes in GDP per capita, mortgage loans and new builds, while the excessive dwelling stock and property taxes have a negative impact on final prices
- The **construction of new houses** is driven primarily by mortgage lending and secondarily, but strongly, by the per capita income and dwelling stock
- The **mortgage lending expansion** in Greece is not strongly related to the economic growth

Towards a new equilibrium

The main drivers that shape dynamics of the housing market

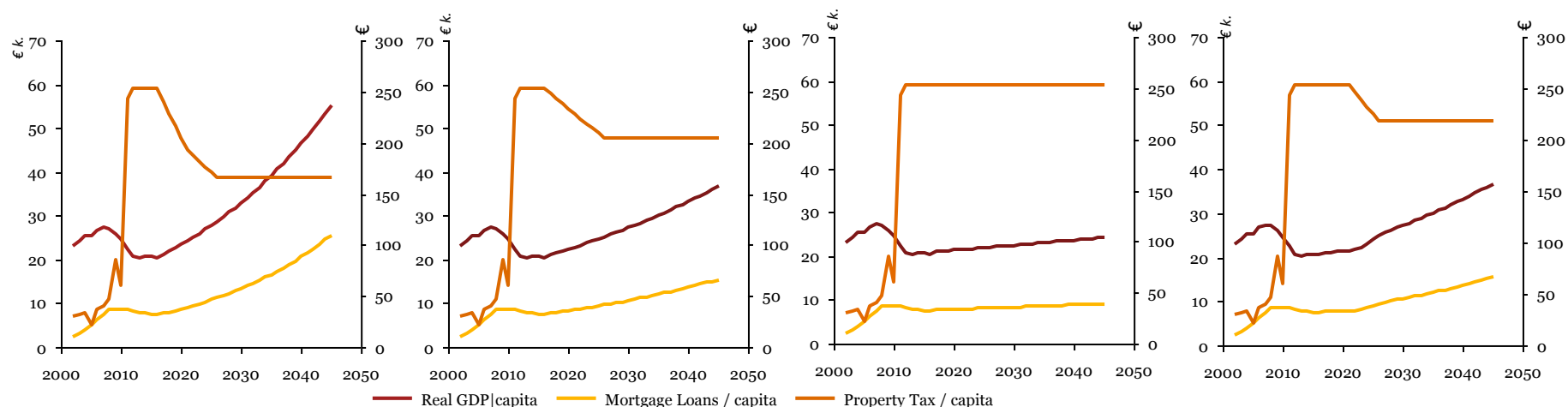


4 Alternative Scenarios for the Greek Economy

	Scenario 1: High Growth	Scenario 2: Moderate Growth	Scenario 3: Low Growth
Economic Growth	2.7% in 2017* and 3.5% onwards	2.7% in 2017* and 2% onwards	2.7% in 2017* and 0.5% onwards
Mortgage Lending	Mortgage lending will increase at a higher rate than GDP growth	Mortgage lending will increase at a higher rate than GDP growth	Mortgage lending will increase at a higher rate than GDP growth
Property Taxes	Drop in property tax by 5.3% annually up to 2021, 3% up to 2026 and stable afterwards	Drop in property tax by 2.1% annually up to 2026 and stable afterwards	Stable property taxation at 2015 levels

Scenario 4: Realistic

- Scenario 3 for the first 5 years
- Scenario 1 for the next 5 years
- Scenario 2 afterwards

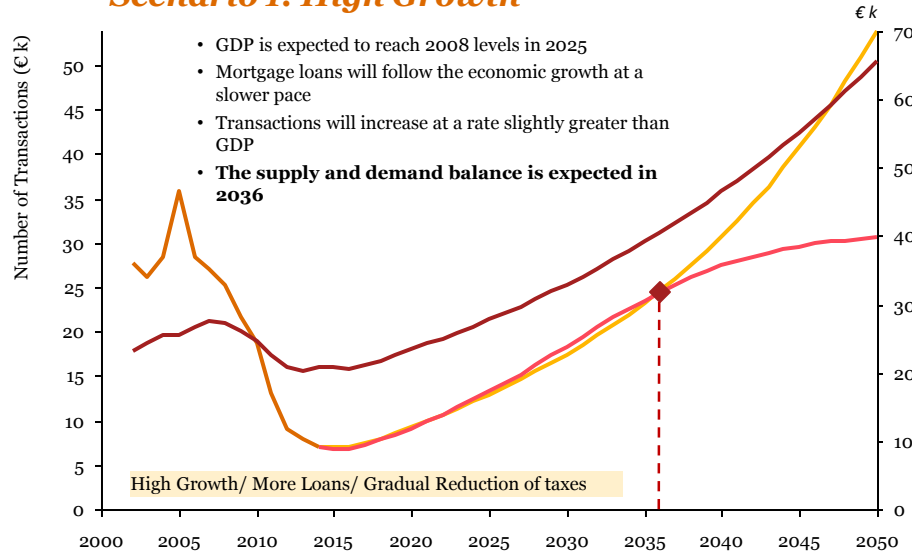


*According to IMF estimations for Greek economy, GDP growth will rise to 2.7% in 2017 (World Economic Outlook). The projections for the following years are based on the historical average of the years reporting high growth (3.5%) for scenario 1 and on the historical average of the years reporting low economic growth (0.5%) for scenario 2 (European Commission data)

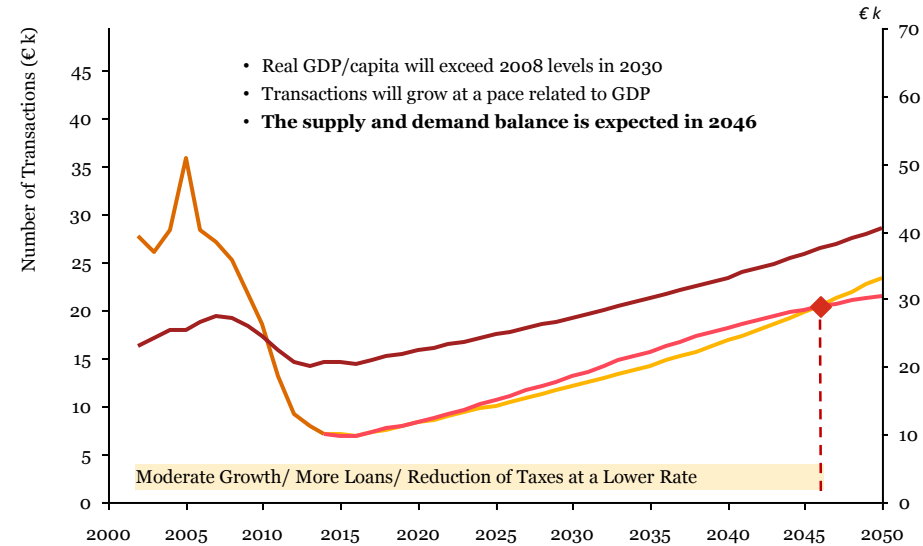
Towards a new equilibrium

The market will reach a new equilibrium between 2036, if there is systematic and significant growth and 2050 should there be low growth

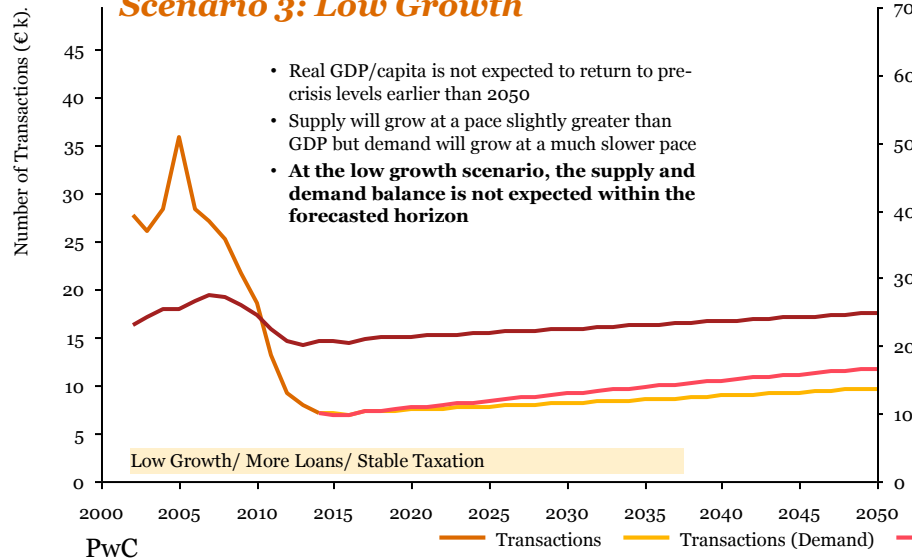
Scenario 1: High Growth



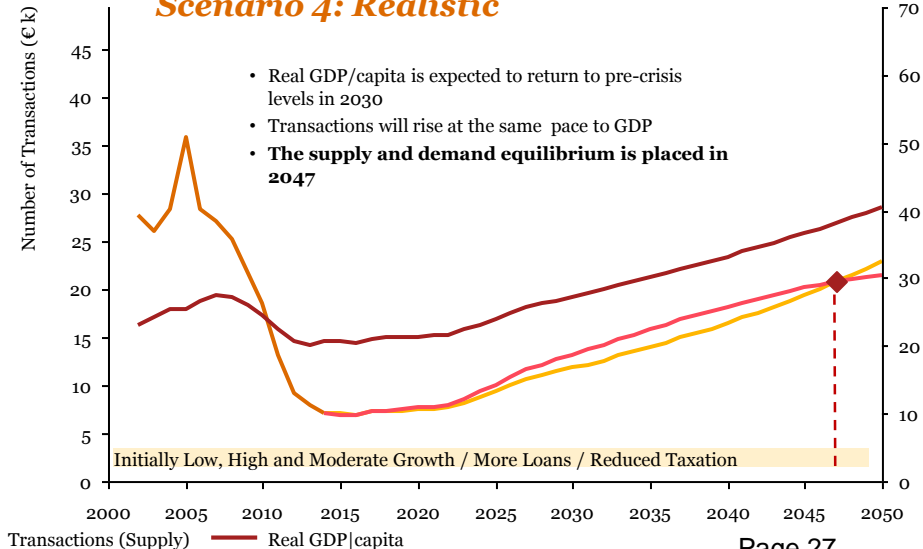
Scenario 2: Moderate Growth



Scenario 3: Low Growth

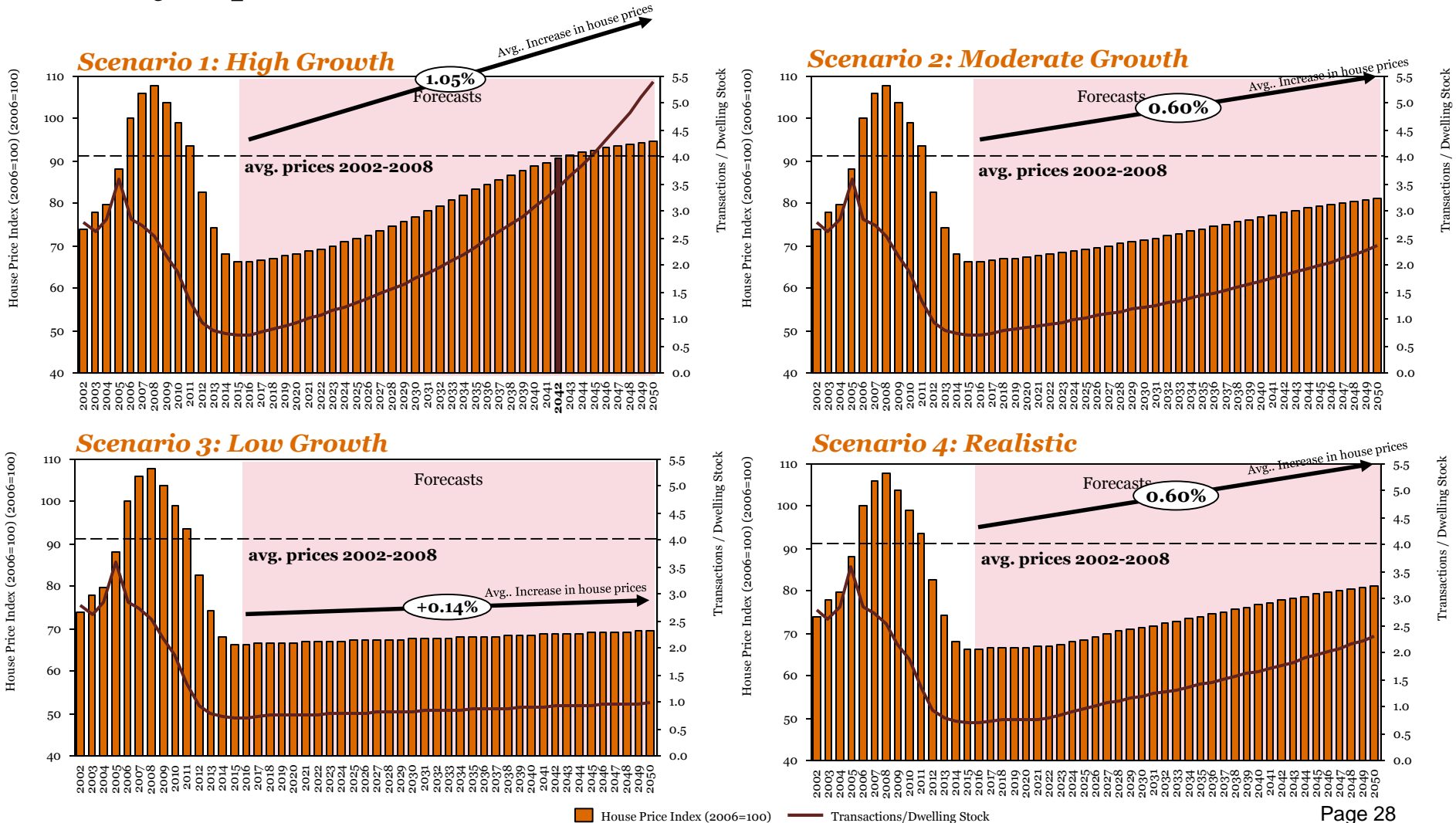


Scenario 4: Realistic

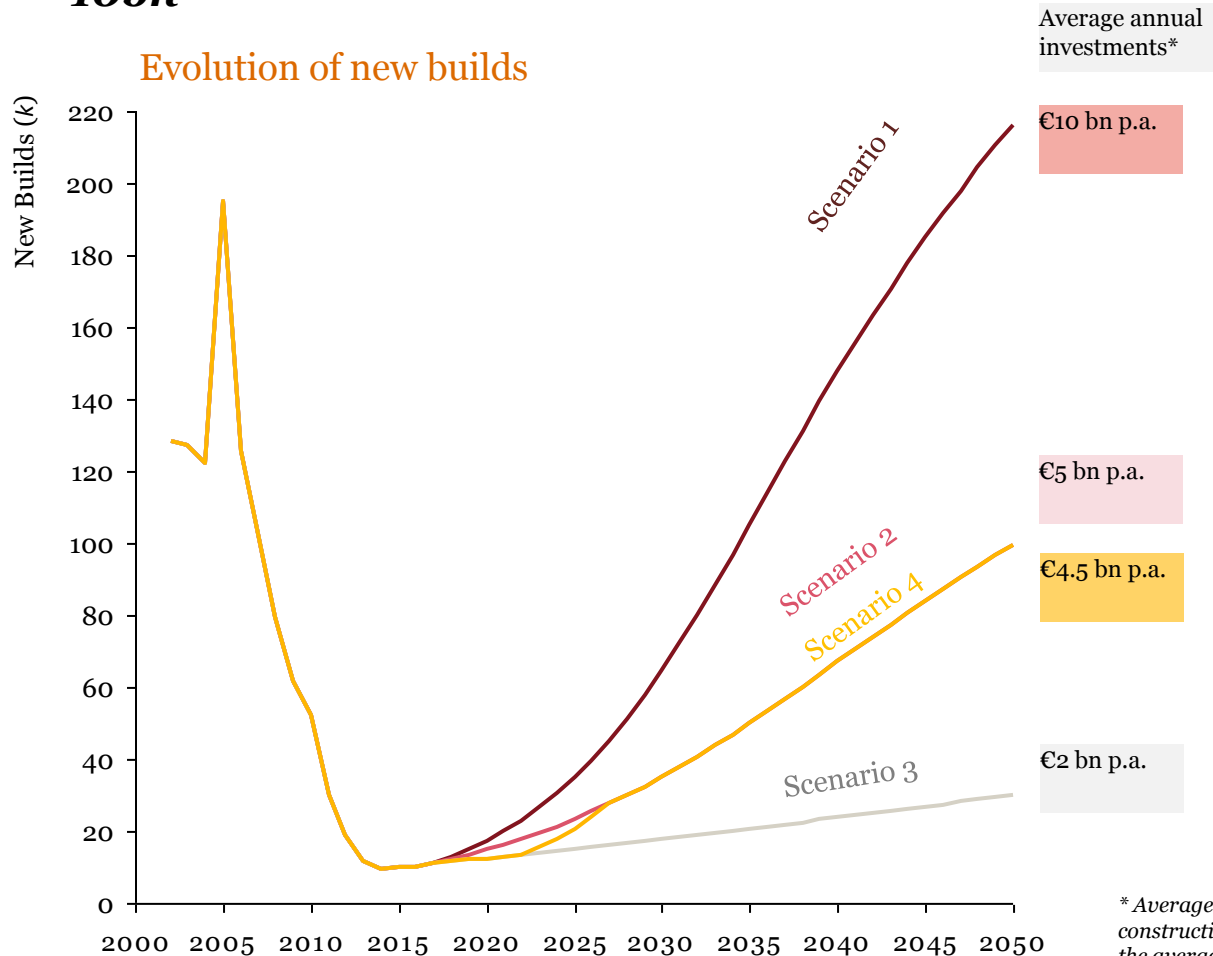


Towards a new equilibrium

Due to the oversupply, House prices are expected to return to the average level of the period 2002-2008 by 2042 the earliest, if the economy recovers at a fast pace



The average growth rate of new builds is placed, depending on the GDP growth rate, between 3.2% and 9.3% p.a., while the average annual investment in new build construction is estimated between € 2bn and € 10bn



The average number of new builds per annum is estimated between 100.000 (high growth) and 20.000 houses (low growth)

* Average annual investments are derived from the construction of new builds. According to Eurostat (2012 data) the average house size in Greece is 94 sq. m. and according to market estimates, the construction of a 94 sq. m. house costs on average €100k.

Should the Greek economy grow according to the realistic scenario, the housing market is expected to balance after 2047, but house prices will reach 2002-2008 levels long after

	GDP/capita at 2008 levels	Market equilibrium	House prices at avg 2002-2008	Estimated average annual house investments
<i>Scenario 1: High Growth</i>	2025	2036	2042	€ 10 bn
<i>Scenario 2: Moderate Growth</i>	2030	2046	After 2050	€ 5 bn
<i>Scenario 3: Low Growth</i>	After 2050	After 2050	After 2050	€ 2 bn
<i>Scenario 4: Realistic</i>	2030	2047	After 2050	€ 4.5 bn

Summary – The housing market will return to pre-crisis levels after 35 years

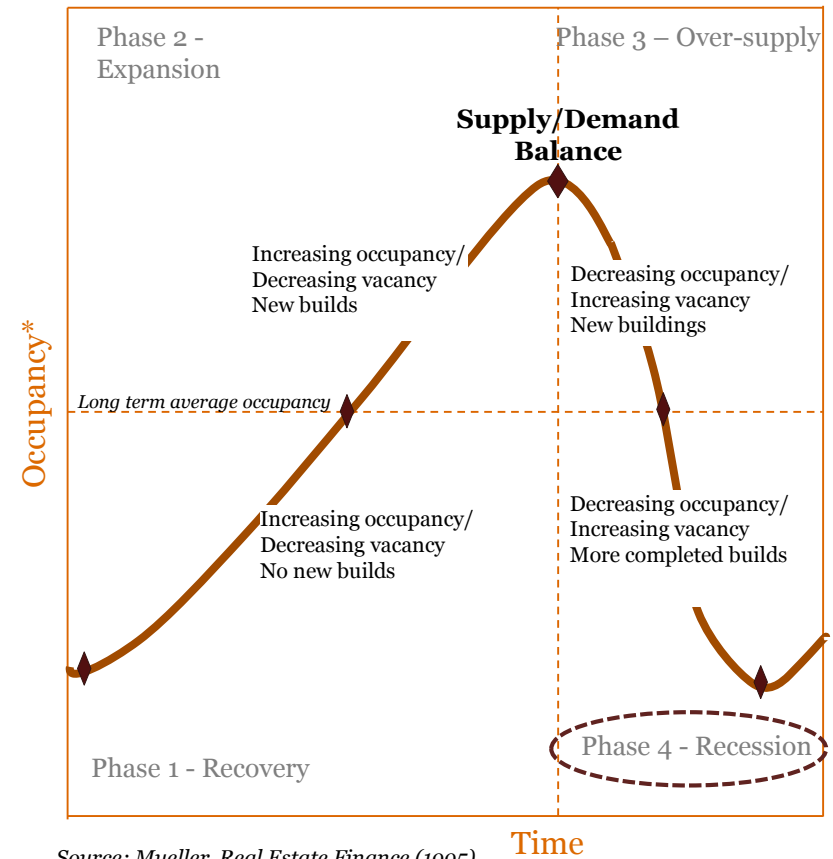
- According to the realistic scenario of the Greek economy, **GDP per capita** will return to pre-crisis levels **around 2030**
- **The supply and demand** in the housing market will **balance** at about 2047, due to oversupply, high taxation and limited mortgage lending
- **House prices** will grow slowly, with an average growth rate of 0.6% p.a., reaching **2002-2008 levels after 2050**
- **Real estate investments** are not expected to play significant role in the short-term growth of the economy, as they will remain at lower than historical levels, around **€ 4.5bn p.a. on average**
- For the faster recovery of the Greek housing market, a **real annual growth of at least 3.5%** would be required for a long time
- **Mortgage lending** should **follow the growth rate of the economy** in order to reactivate demand
- Property taxes should gradually decrease in order to boost investment interests

Strengthening the housing market

Is there space for a new housing market policy?

- Greece is close to the end of a long recession, but the political and economic pressures will remain strict for several years
- House prices have severely dropped
- The oversupply is difficult to be absorbed, especially in a period of income decrease and limited mortgage lending rendering difficult for the market to recover
- Greece is not a target-country for investors
- Apart from this environment, the Greek housing market suffers from two additional structural problems
 - **Non-scraping of aged stock**
 - **Fragmented property**
- Without addressing those failures, the demand in the market will develop slowly but steadily, under certain macroeconomic and financial conditions

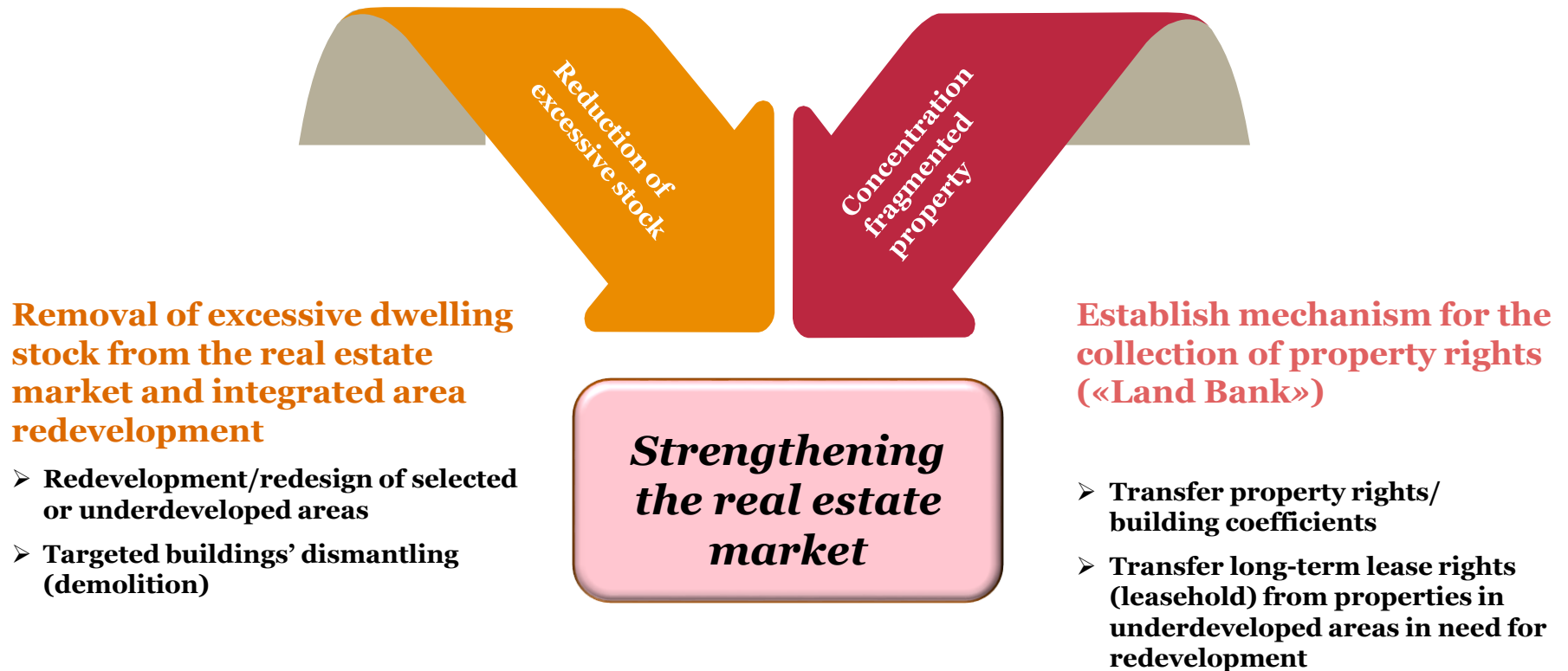
Greece is in recession while suffering from house oversupply



Source: Mueller, Real Estate Finance (1995)

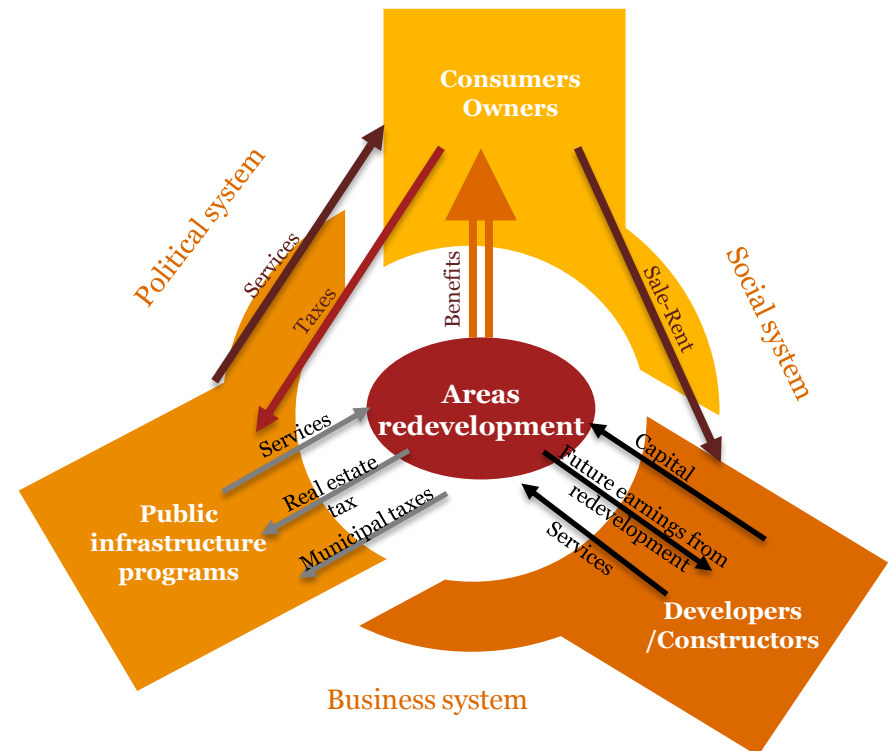
* *The difference between supply (including new builds) and demand in terms of absorption

Fast rebalancing of the housing market



Reduce oversupply through massive reconstruction and redevelopment of part of the dwelling stock

- **Upgrading underdeveloped urban areas** through zone regeneration programs or through the creation of urban business clusters while simultaneously providing relocation incentives, remuneration or participation (for property owners) to the regeneration program, creating investment opportunities and positive externalities for the economy
- **Revitalising/rebuilding brownfield sites and removal of abandoned and unsafe buildings**
- **Moving ministries and other public services buildings out of the city center** in order to release and renovate existing premises, while also to upgrade suburban zones
- **Improve the external demand** through the construction of organised accommodation units as well as vacation houses for tourists
- **Investments in infrastructure and technology projects** for the interconnection and access to the new areas, as well as the upgrade of the existing ones, boosting construction interest and increasing house value



Concentration of fragmented real estate ownership through the creation of a “Land Bank”

**Fragmented properties/
properties that
building rights
have been removed**



**Transfer of
Building Coefficient**
properties that building
rights have been removed

- Transfer building coefficient rights
- Financial compensation

**Transfer
Exploitation rights**
of buildings in
underdeveloped areas for
long-term lease
(Leasehold)

Dividends from real
estate development

Land Bank

- *Securitisation of intangible rights*
- *Offering of Leasehold rights*
- *Land depositor*
- *Land integrator*
- *Market maker in warrants, property rights, and building coefficients*

**Concentrated property for
reconstruction/redevelopment**
(building coefficient reception zones)



**Additional
Building Coefficient**

- Transporting of building coefficient
- Financial compensation

Warrants

- Payments

**Long-term lease
(Leasehold)**

Leasehold payments

Developers



- Construction/redevelopment of the infrastructure and properties in the reception areas
- Long-term Leasehold (eg. 100 years)

Through Real Estate Bank:

- Consolidation of building coefficients into urban zones (building coefficient reception zones)
- Concentration of fragmented property for massive reconstruction of part of the dwelling stock and redevelopment of the reception zones
- Reinforce real estate yields through the transfer of building coefficient
- Attract investors for long-term lease (eg. 100 years)

The Land Bank will facilitate growth

- ✓ Management and transfer of building coefficients, from properties that building rights have been removed, into building coefficient reception zones (according to social, environmental and financial criteria)
- ✓ Creation of a more flexible mechanism for matching building coefficients, through financial compensation
- ✓ Securitisation and disposal of long-term lease rights (leasehold) from properties in underdeveloped areas, for long term exploitation and development (leasehold)
- ✓ Transfer of property rights for a long-term period (e.g. 100 years) over a leasing scheme, part of which will return to the initial property owner as dividends. By the end of the leasehold, the property will return back to the owner

Summary – for the fast recovery of the housing market, to reduce oversupply and facilitate transactions policies are needed

Reduction of excess dwelling stock

- The Greek housing market show signs of oversupply, due to systematic investments in the sector. Alongside it suffers from 2 additional structural failures:
 - Non-scraping of aged stock
 - Fragmented property
- To reduce the oversupply in housing market through massive redevelopment of part of the dwelling stock, along with infrastructure and technology investments:
 - Upgrading non-operating buildings and scrapping of old stock
 - Moving ministries and other public services buildings out of the city center
 - Upgrading underdeveloped urban areas
 - Improve the external demand

Facilitate transactions

- Main tool to deal with fragmented property and reconstruction of underdeveloped areas is the establishment of a management and collection mechanism of building coefficients and development rights (“Land Bank”). The Land Bank will be able to
 - transfer building coefficients to appropriate reception construction areas (building coefficient reception zones), targeting at the concentration of the fragmented ownership and the massive reconstruction of part of the dwelling stock
 - convert property rights into long-term lease rights (leasehold) from properties in underdeveloped areas, which will be available to private individuals, investors or developers for large scale developments

Conclusions

Conclusions

- The Greek housing market has shown **significant drop in investments and transaction activity** the last years
- Investments in real estate shrunk dramatically. Indicatively, within 2008-2015, €18bn., or 8.2% of GDP, investments in construction were lost within 2008-2015, slowing further down the economic activity
- Since 2008 the number of housing transactions fell by 72%, while house prices fell by 41%, especially in the urban centers
- According to a realistic scenario, where GDP per capita returns to pre-crisis levels in 2030, it is estimated that:
 - **the supply and demand** in the housing market will **balance** at about 2047, due to oversupply, high taxation and limited mortgage lending
 - **house prices** will grow slowly, with an average growth rate of 0.6% p.a., reaching **2002-2008 levels after 2050**
 - **real estate investments** are not expected to play significant role in the short-term growth of the economy, as they will remain at lower than historical levels, around **€ 4.5bn p.a. on average**
- For the faster recovery of the Greek housing market, a **real annual growth of at least 3.5%** would be required for a long time
- In order to facilitate demand, property taxes should gradually decrease, while mortgage lending should **follow the growth rate of the economy**
- To accelerate the re-balancing of the market it is necessary to:
 - reduce the housing oversupply, through massive redevelopment of part of the dwelling stock, along with infrastructure and technology investments, and
 - deal with fragmented ownership, through the creation of a «**Land Bank**»

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with more than 208,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

© 2016 PwC. All rights reserved