

The Greek Economy and its Real Estate Market as the Crisis Unfolds

Bank of Greece

2nd Conference on Real Estate Market

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- I. The Real Estate markets in the unfolding crisis**
- II. The Greek Real Estate market**
- III. What does the future hold?**

I. Different Euroarea countries confronted with different challenges

USA

- ↓ **Housing market**
- ↓ **Financial system weaknesses**
 - Leverage
 - Risk
 - Governance

IRELAND

- ↓ **Housing market**
- ↓ **Banks → rise of public debt**
- ↓ **High private debt**

SPAIN

- ↓ **Low competitiveness**
- ↓ **Housing market**

GREECE

- ↓ **Low competitiveness**
- ↓ **High fiscal deficits & debt**

PORTUGAL

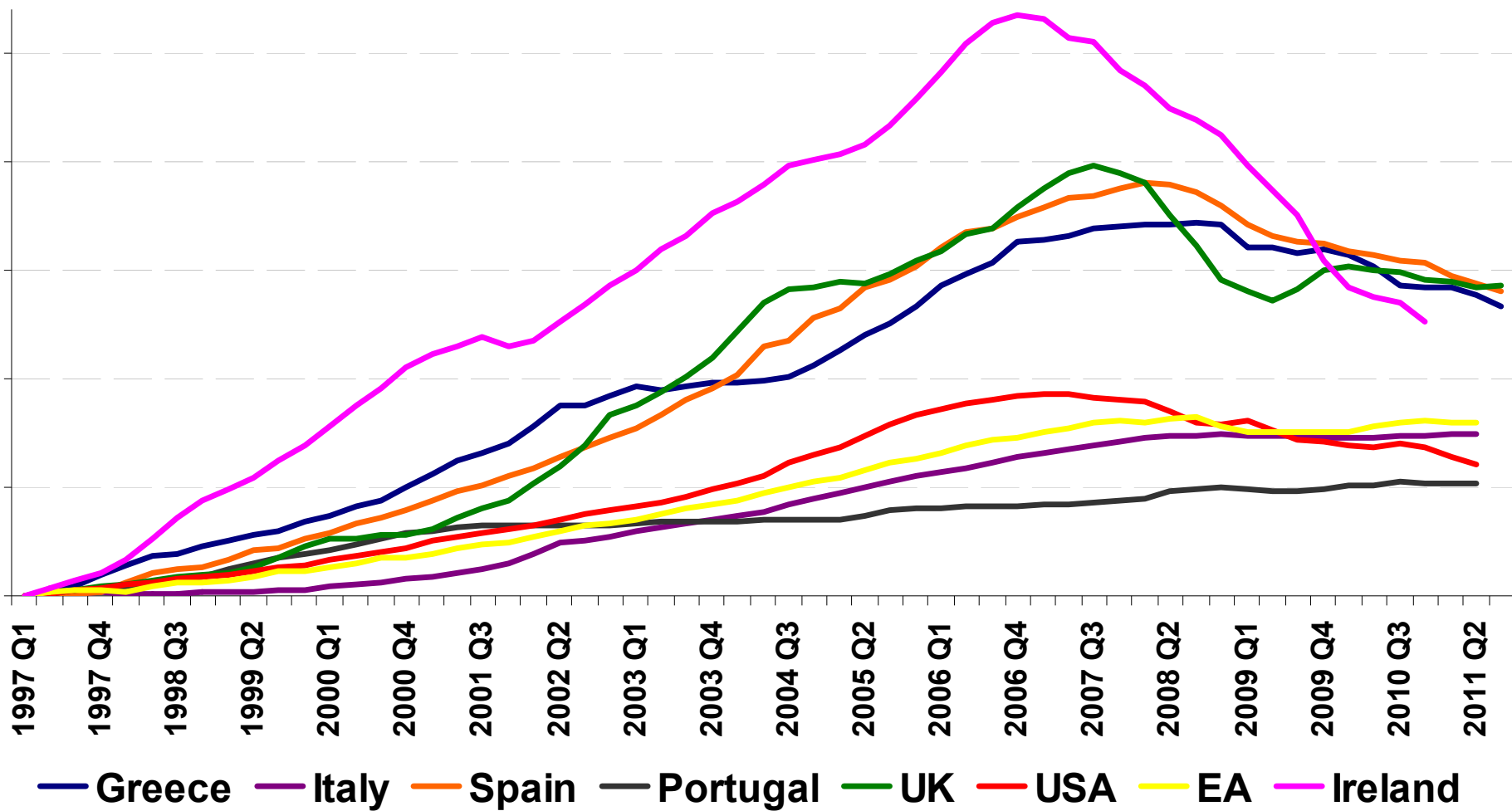
- ↓ **Low competitiveness**
- ↓ **Large fiscal deficits, but not debt**
- ↓ **High private debt**

ITALY

- ↓ **Competitiveness**
- ↓ **High public debt**

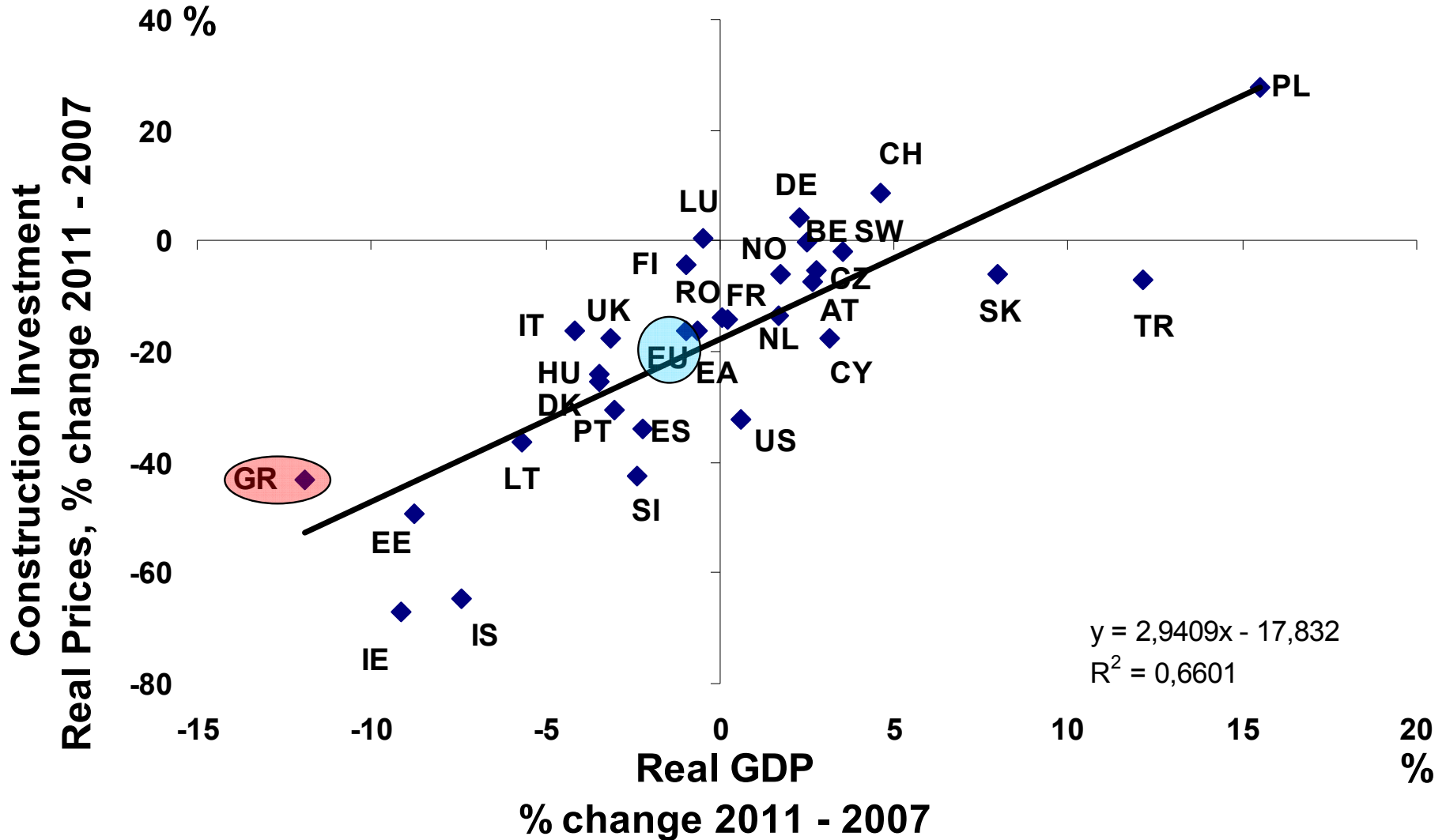
I. Evolution of dwellings prices

(1997 Q1=100)



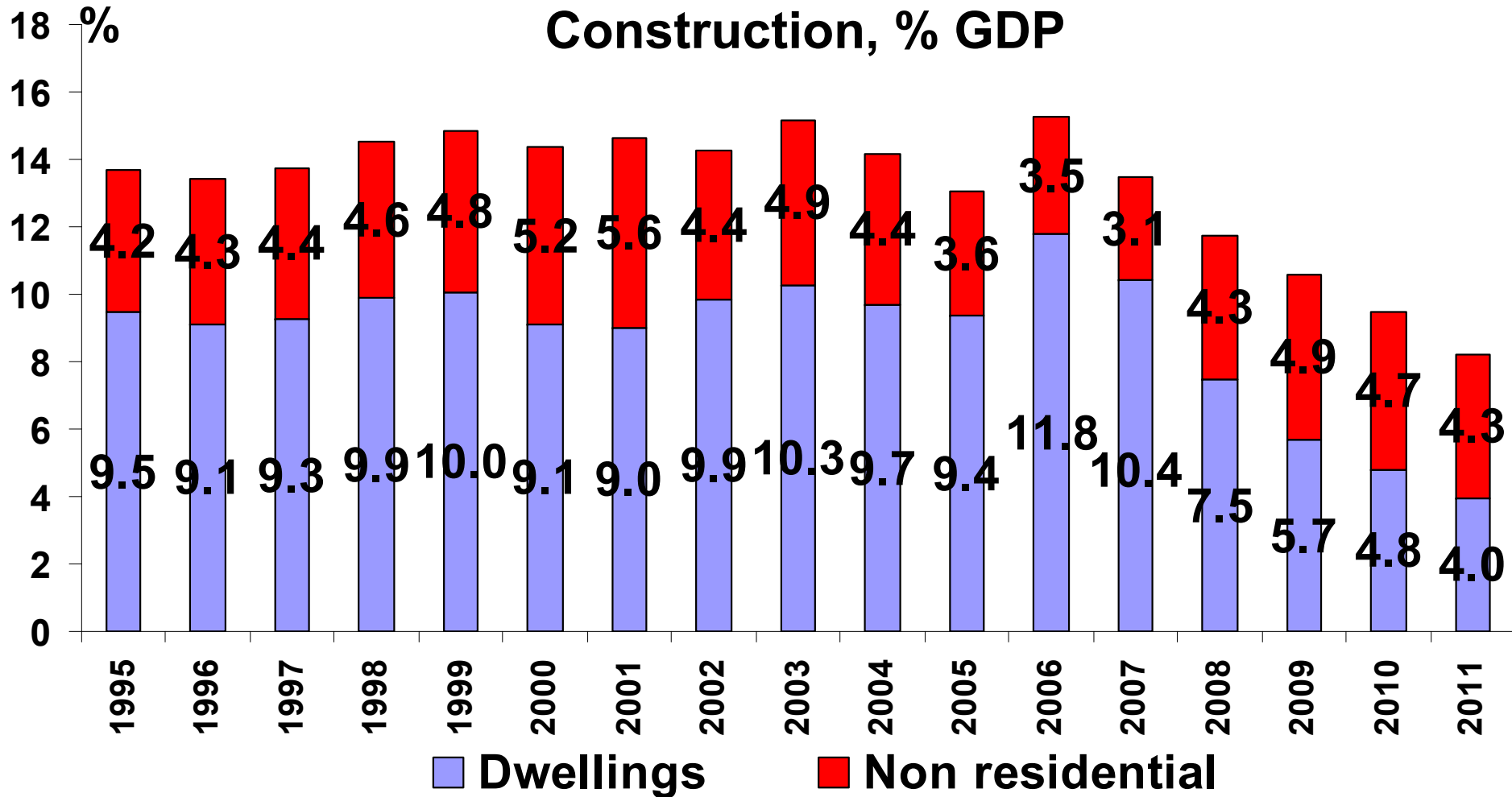
Note: Quarterly data.

I. Construction Investment more sensitive in the recession



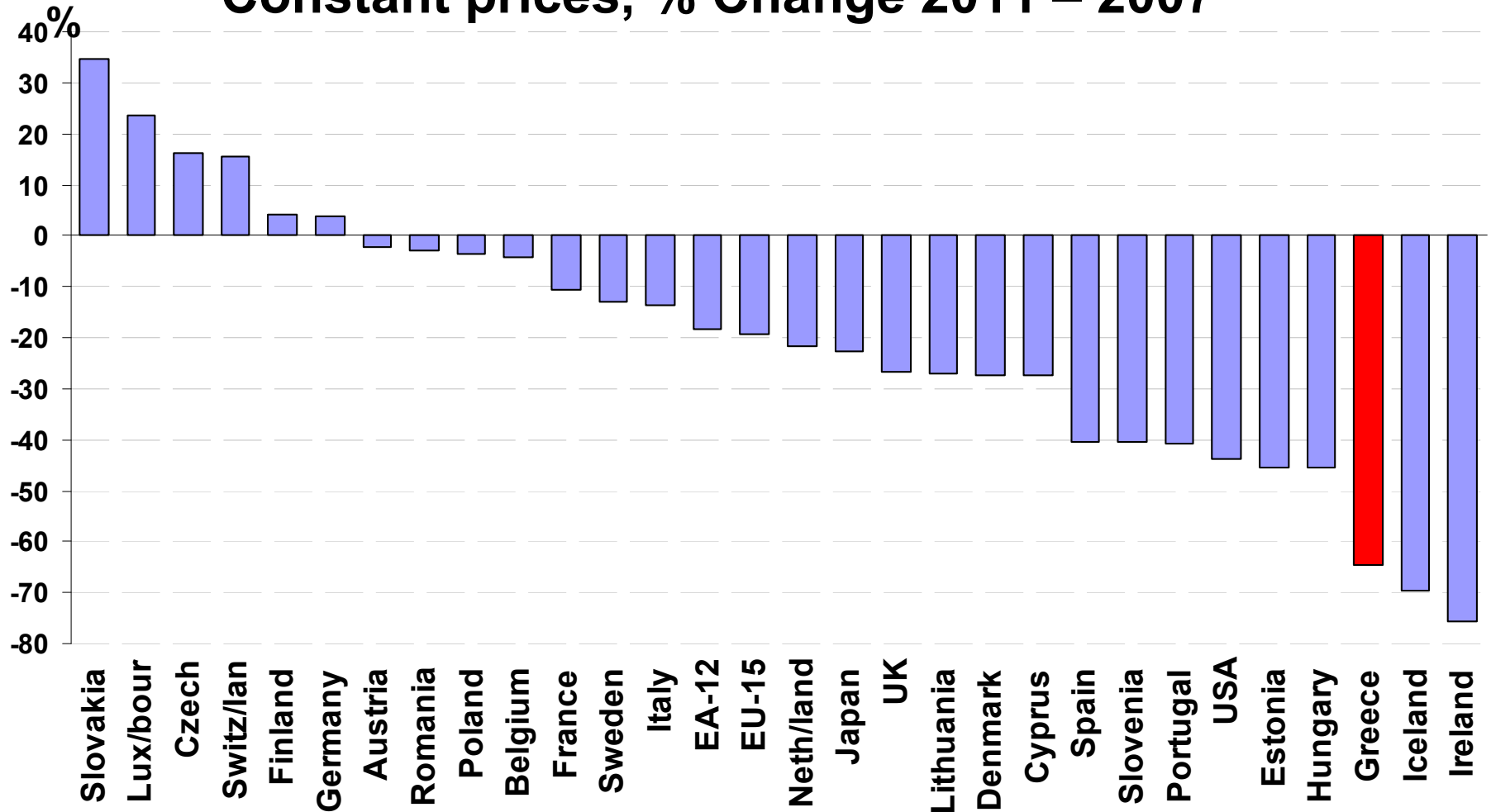
I. Construction Investment in Greece

Gross Fixed Capital Formation Construction, % GDP

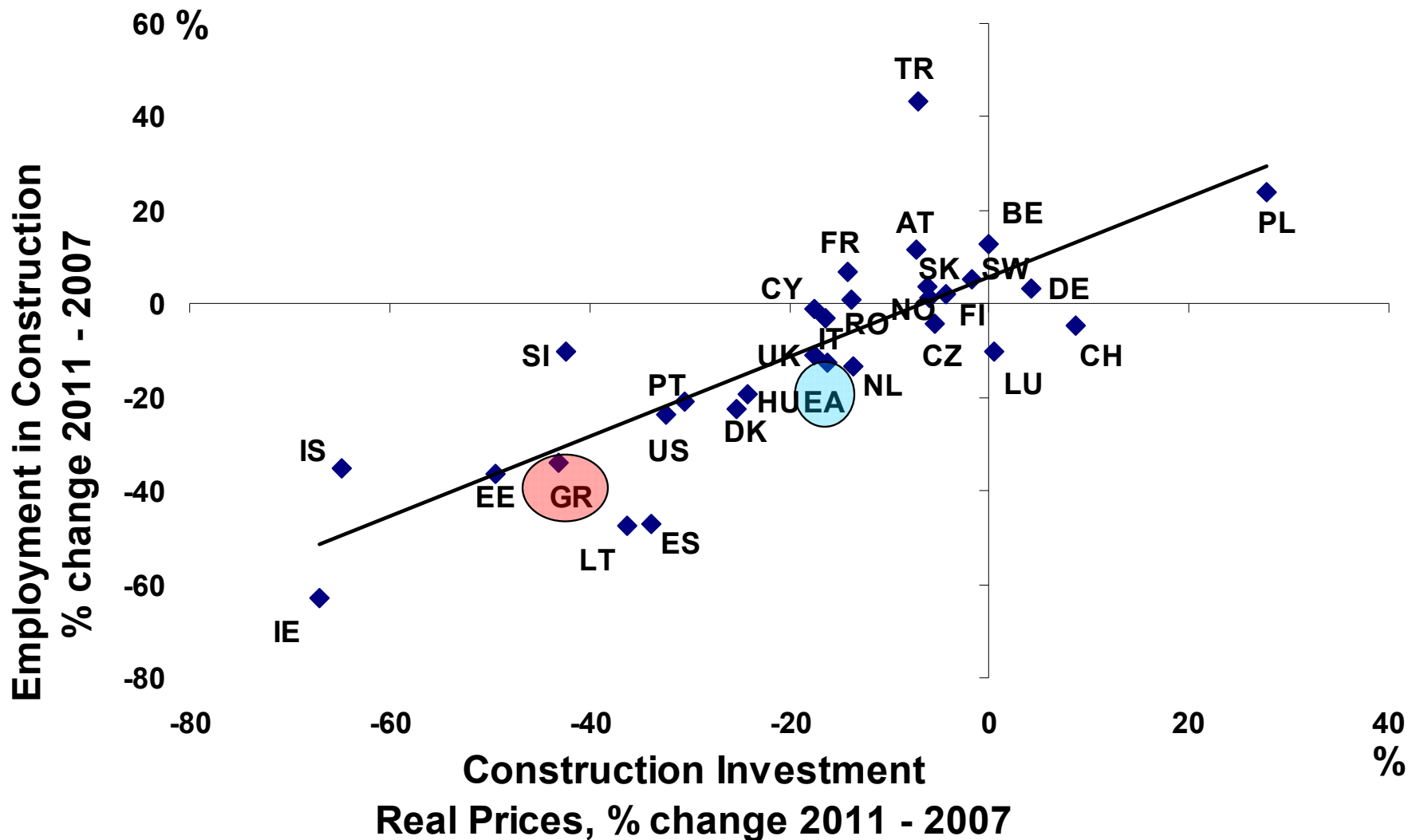


Source: EU Commission

Gross Fixed Capital Formation, Dwellings Constant prices, % Change 2011 – 2007

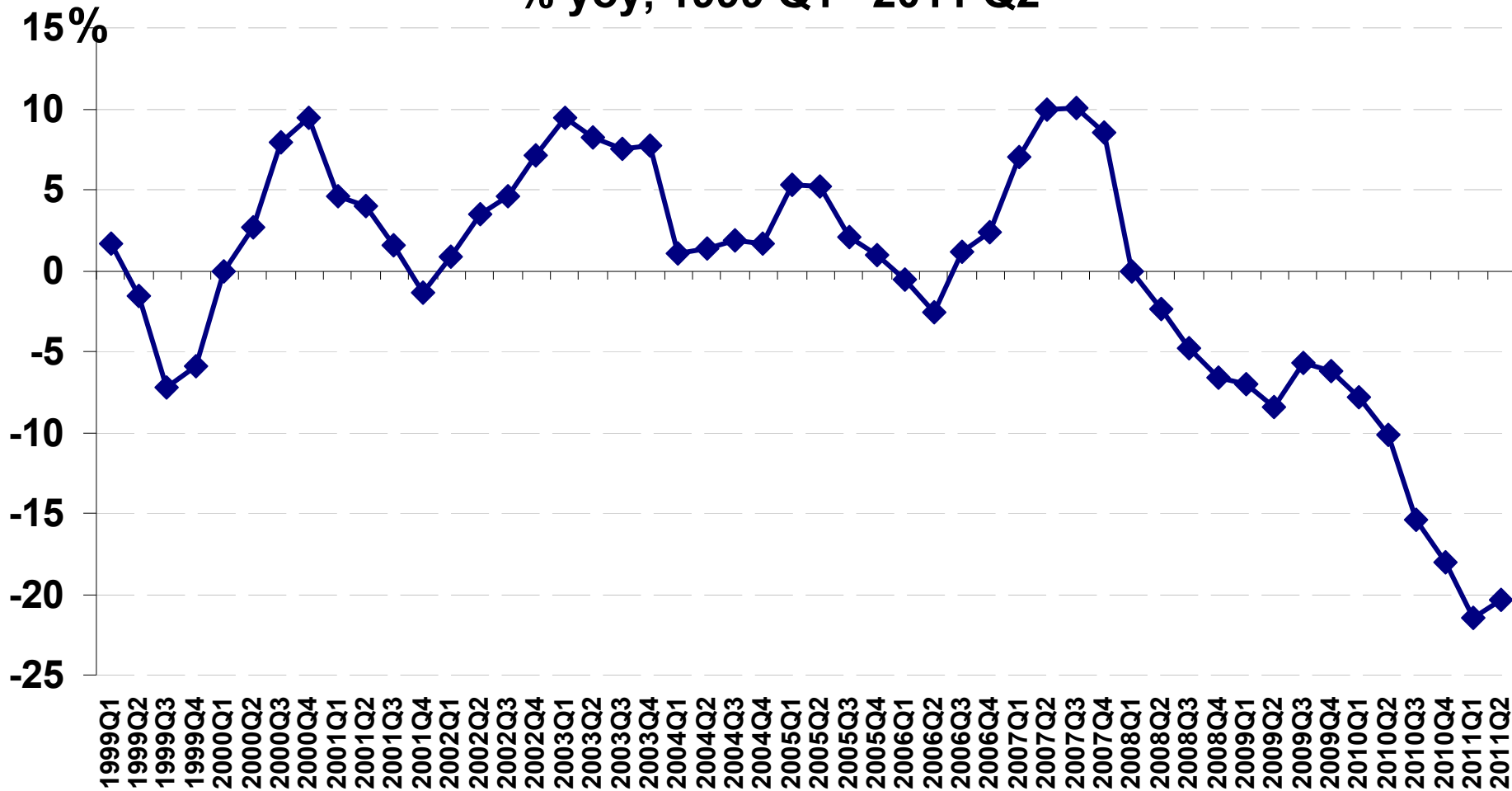


I. Employment & investment in the construction sector



I. Employment in the construction sector is rapidly decreasing

Greece employment in construction, % yoy, 1999 Q1 –2011 Q2



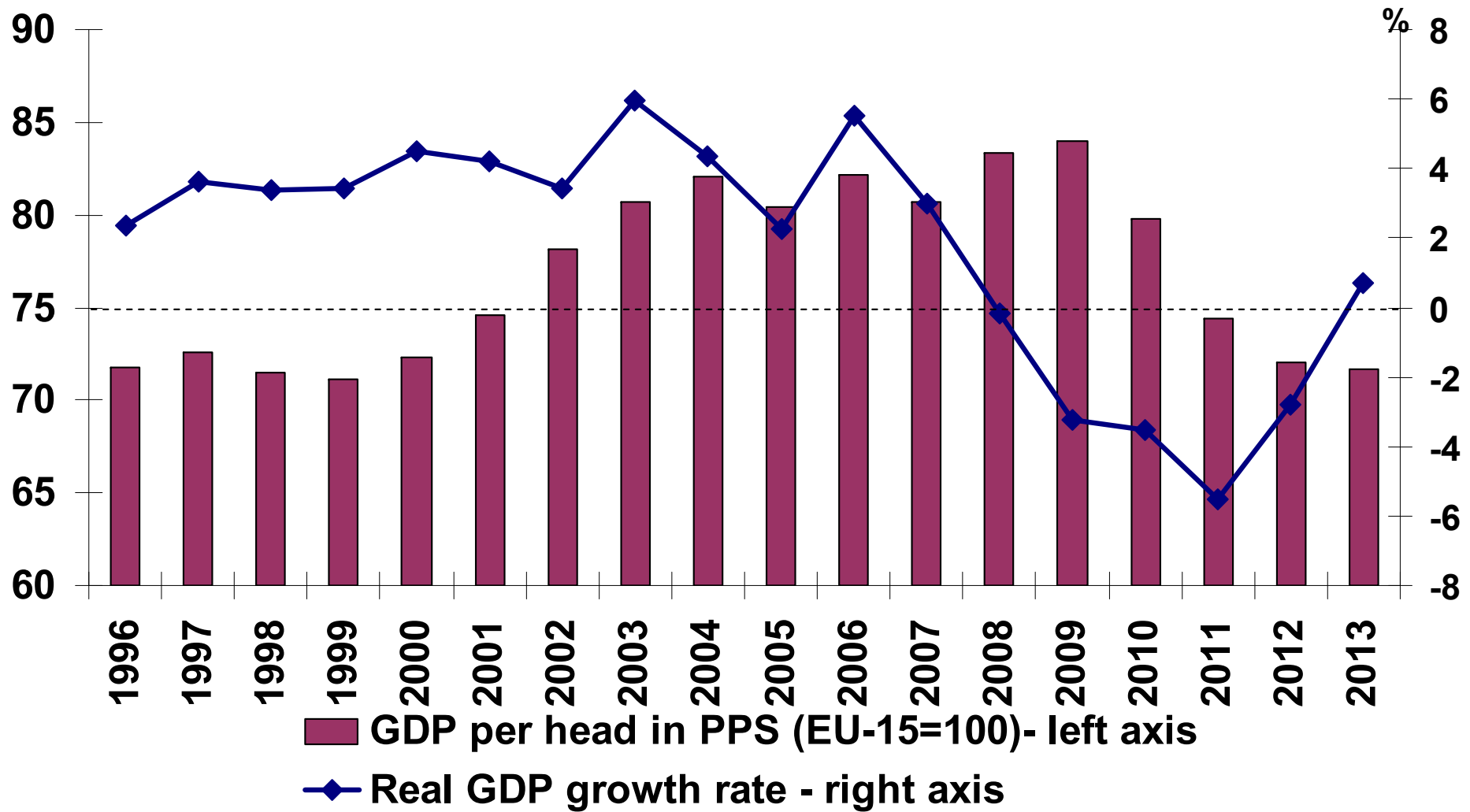
Note: Not including persons employed in real estate agencies, bank departments dealing with mortgages, lawyers, businesses related to housing (furniture) and of course undeclared employment.

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Factors affecting prices, according to empirical studies:

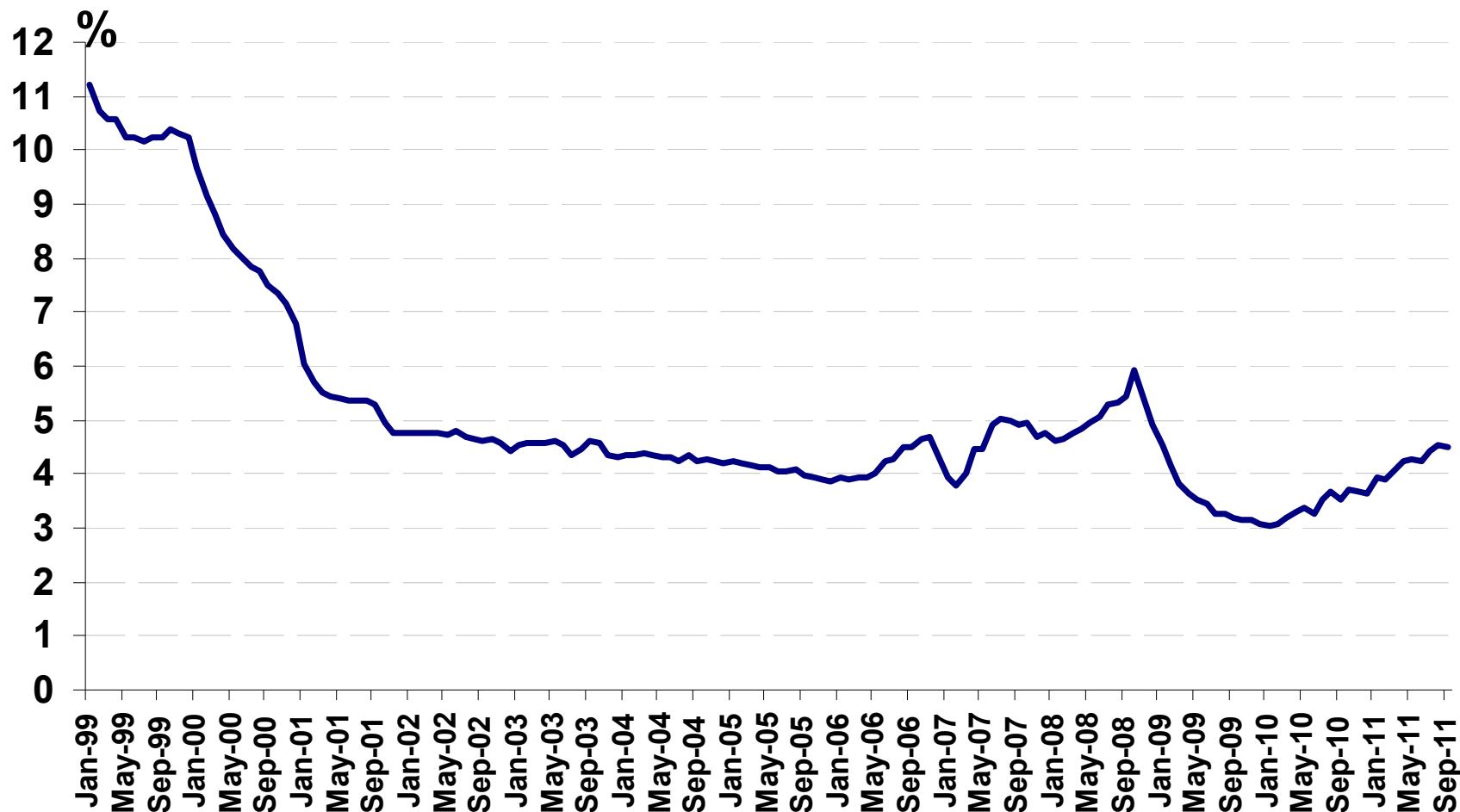
- i. households disposable income,
- ii. real interest rates,
- iii. demographic factors,
- iv. supply side,
- v. credit availability,
- vi. tax and regulatory environment

II. Rapid economic growth – Living standards convergence



Source: EU Commission

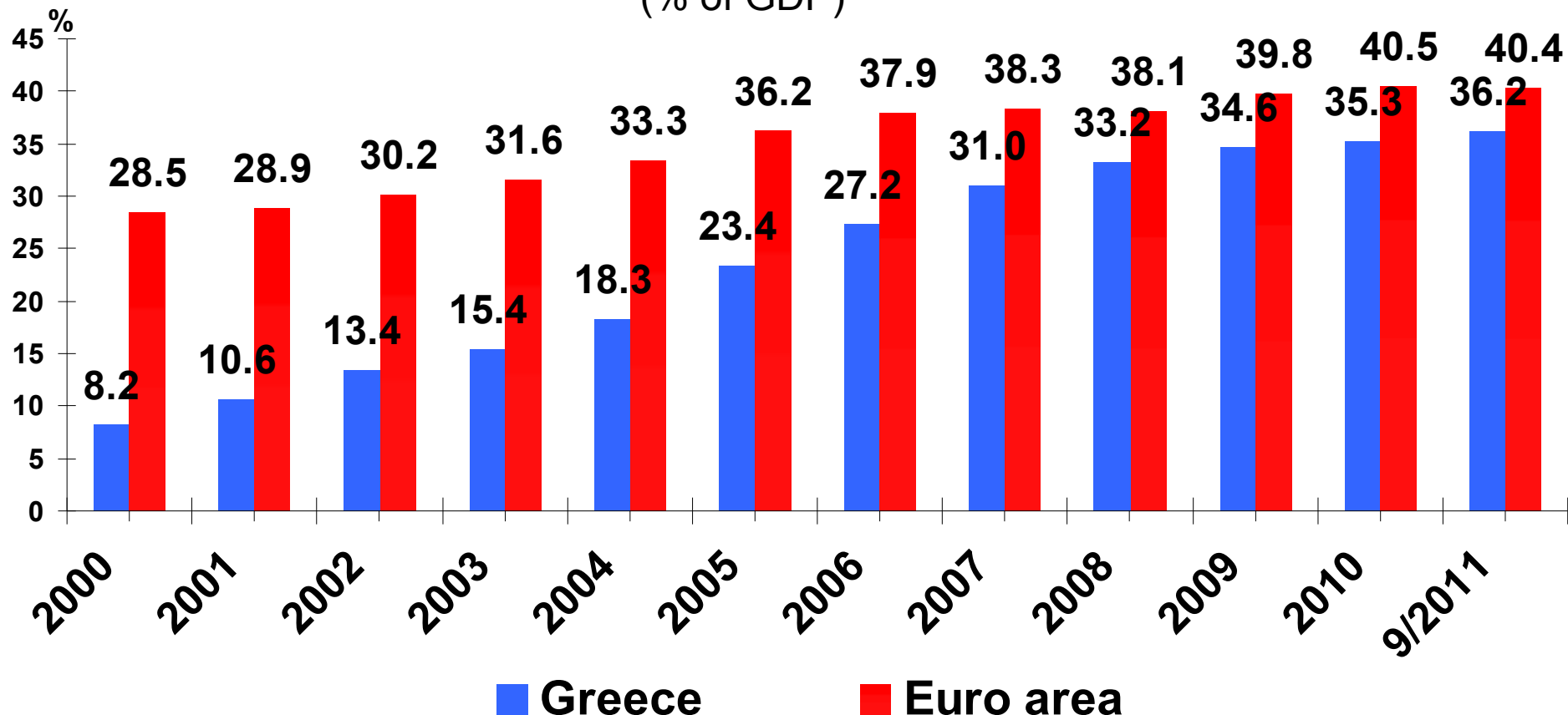
II. Interest rates on new Housing Loans in Greece



Note: Bank interest rates on new Housing loans from domestic credit institutions vis-à-vis individuals and individual non-profit institutions, euro area residents. Floating rate or up to 1 year rate fixation.

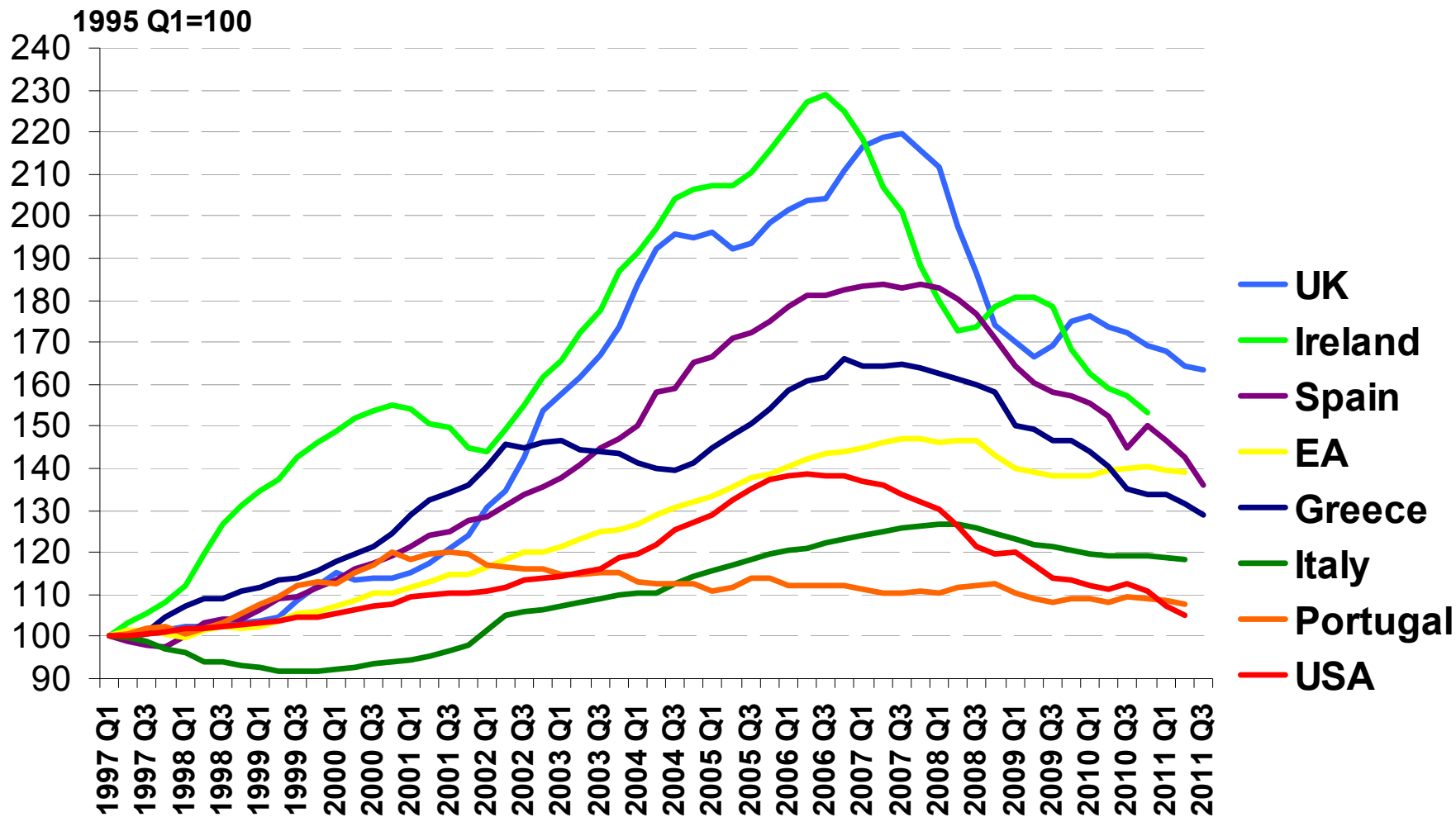
II. Credit expansion catching up with the Euroarea

Housing Loans (% of GDP)



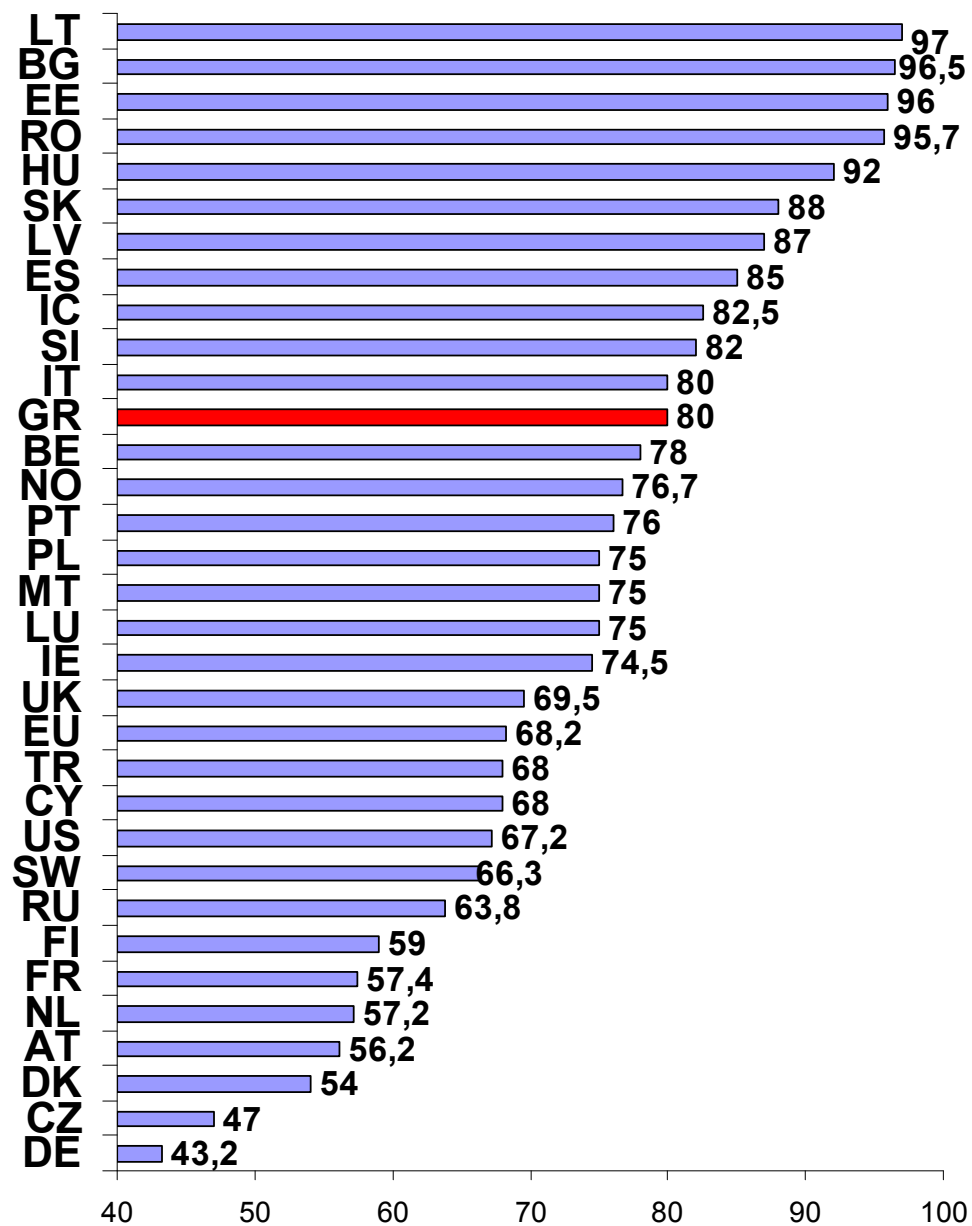
Note: Credit to domestic non-MFI residents by domestic MFIs excluding the Bank of Greece, outstanding amounts at end of period, individuals and private non-profit institutions, including securitised loans and corporate bonds that have been derecognised from the balance sheet. For Greece: 2000 € 11.2 bn. September 2011 € 78.8 bn. For the Euro area: 2000 € 1,875.8 bn. September 2011 € 3,809.9 bn.

II. Nominal house prices to rents ratio (P/E)



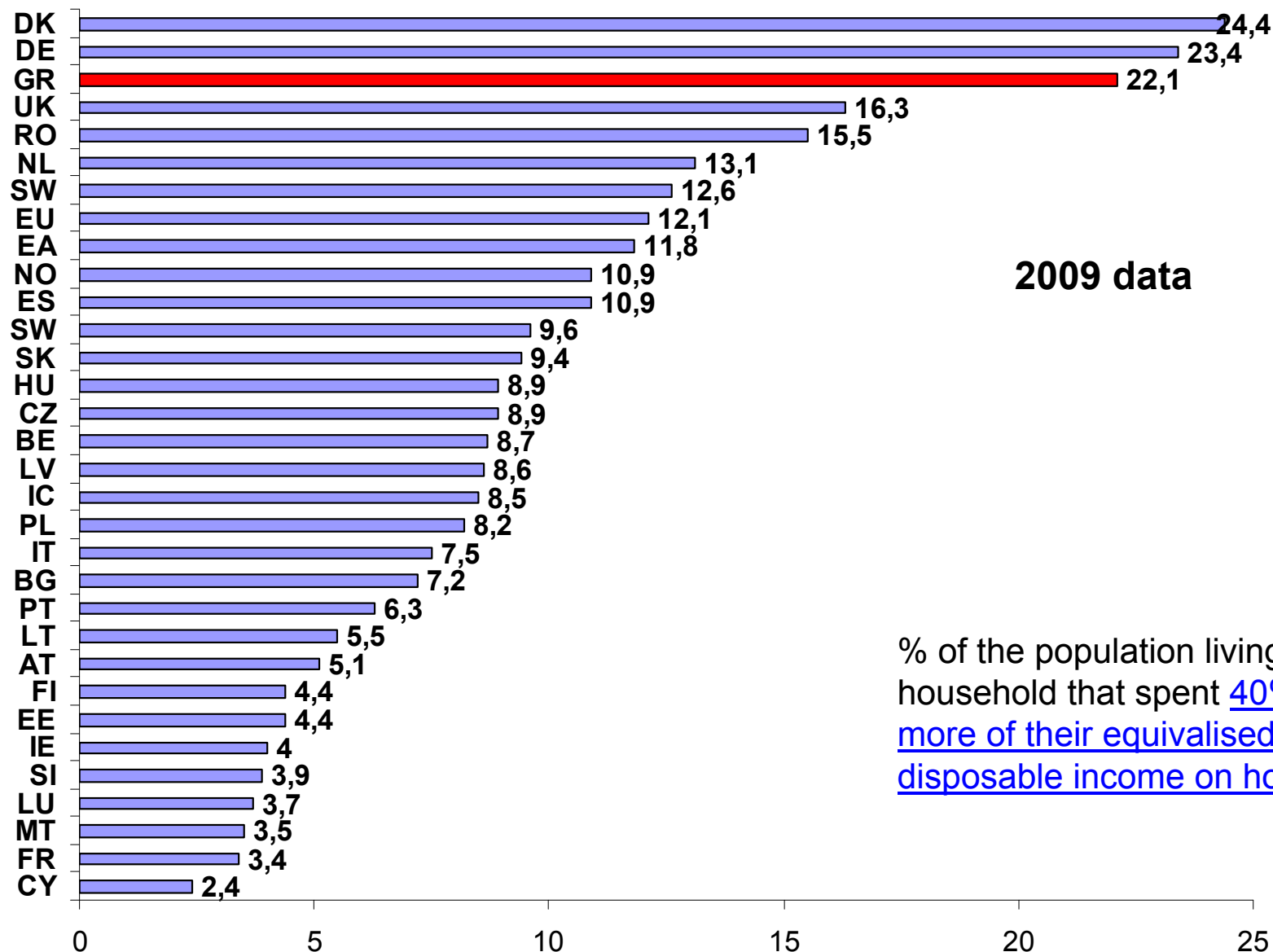
Notes: Quarterly data.

II. High ownership rate



Owner Occupation Rate
(% housing units)

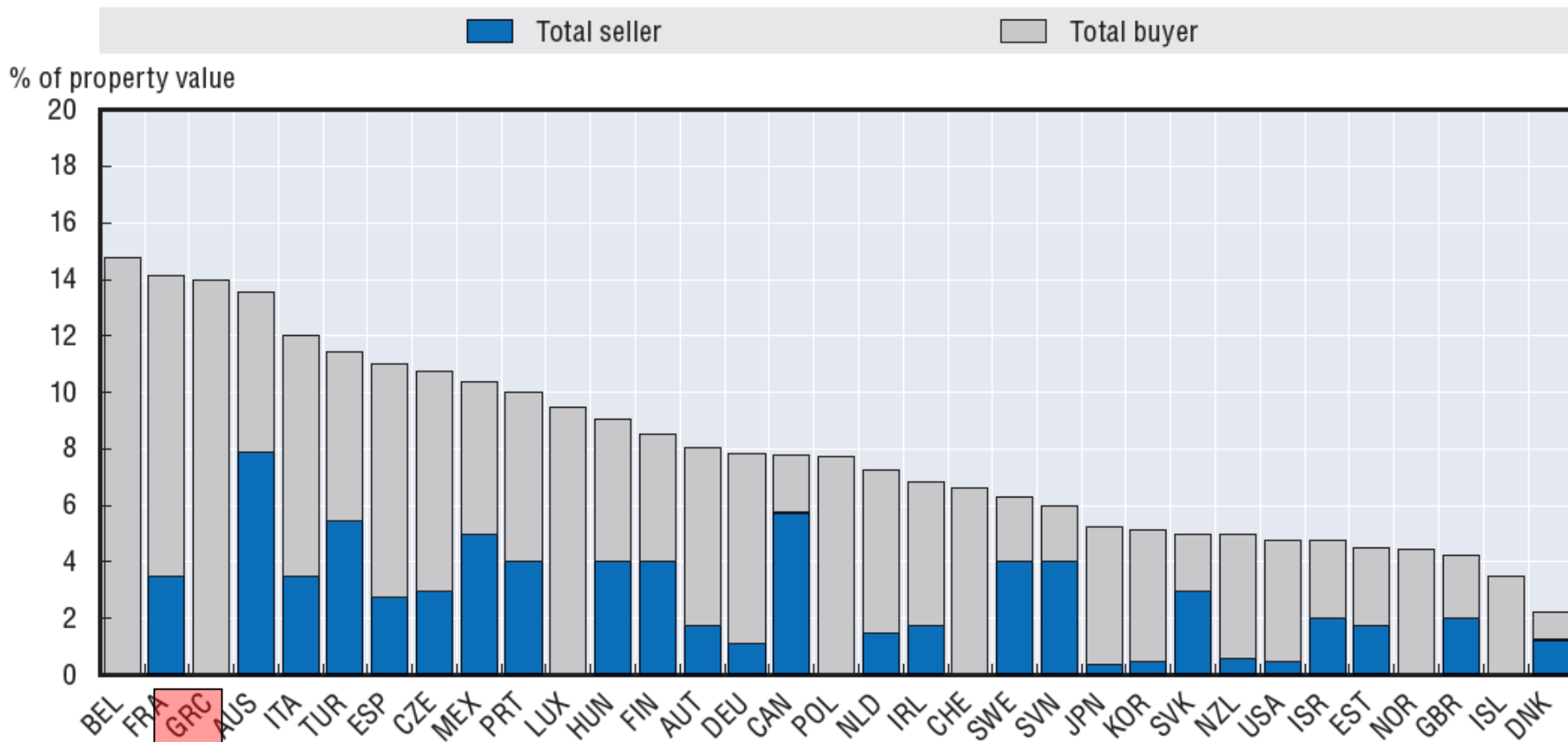
II. Housing cost overburden rate



% of the population living in a household that spent 40% or more of their equivalised disposable income on housing

II. Transaction costs of purchasing property

OECD countries, 2009 data



Note: Transaction costs refer to average costs. The estimates do not take into account the various tax breaks that exist in countries for certain dwellings implying that the estimated cost may overestimate the actual cost in some countries (for example in Italy) where such tax breaks are frequent. In addition, VAT when applied to certain costs is not included due to data limitations.

Source: Johansson, A. (2011), "Housing Policies in OECD Countries: Survey-based Data and Implications", OECD Economics Department Working Papers

II. Low competitiveness scores

Doing Business 2012

Dealing with Construction Permits

	Greece	Germany	Ireland	Portugal	USA
DB 2012 Rank out of 183 economies	41	15	27	97	17
Procedures (number)	14	9	10	14	15
Time (days)	169	97	141	255	26
Cost (% of income per capita)	3.4	49.7	33.1	47.2	12.8

Getting Electricity

	Greece	Germany	Ireland	Portugal	USA
DB 2012 Rank out of 183 economies	77	2	90	34	17
Procedures (number)	6	3	5	5	4
Time (days)	77	17	205	64	68
Cost (% of income per capita)	59.2	49.9	91.1	54.6	16.8

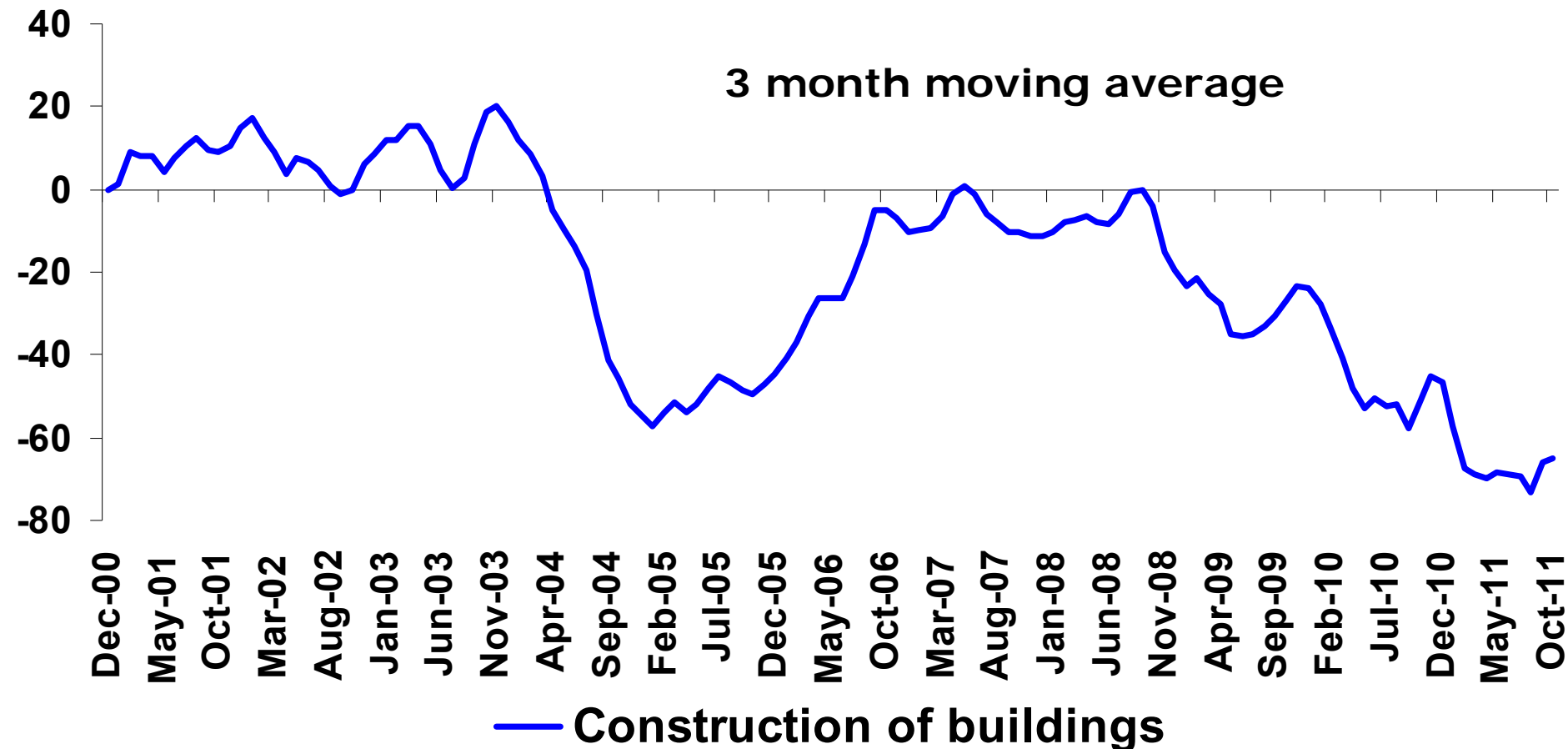
Registering Property

	Greece	Germany	Ireland	Portugal	USA
DB 2012 Rank out of 183 economies	150	77	81	31	16
Procedures (number)	11	5	5	1	4
Time (days)	18	40	38	1	12
Cost (% of income per capita)	12.0	5.2	6.5	7.3	0.8



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III. Confidence is very low in the construction sector



Note: The arithmetic average of the balances (in percentage points) of the answers to the questions:
(1) Evolution of your current overall order books (sufficient or not)
(2) Employment expectations over the next 3 months (increase or decrease)

III. How long do housing cycles last?

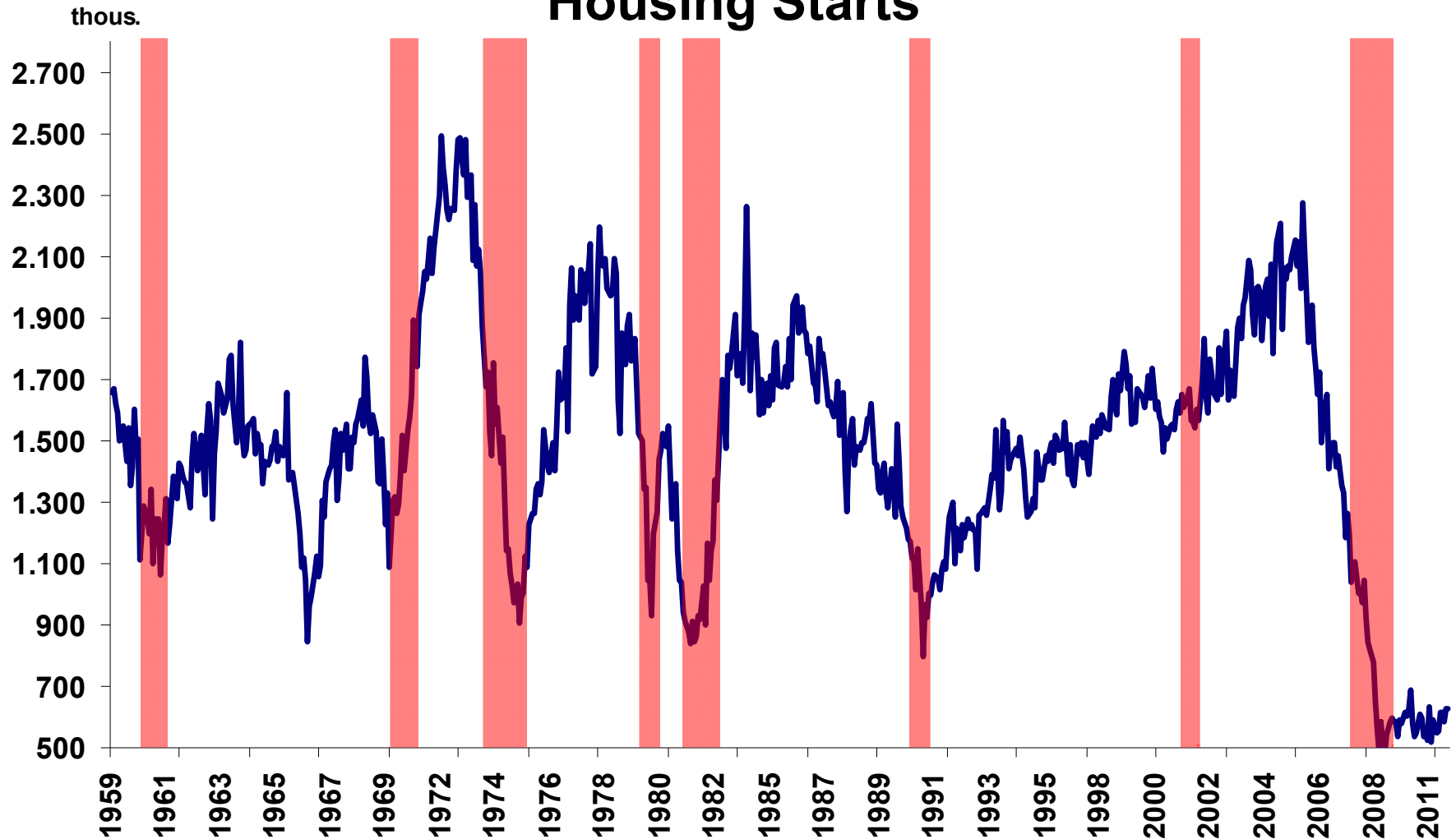
40 years of housing cycles in 19 OECD countries 1970 Q1 – 2010 Q1

	Sample	Duration (quarters)		Amplitude (%)	
		Mean	StDev	Mean	StDev
Complete upturns	49	24.1	14.8	61.3	56.3
Complete + ongoing upturns	55	28.0	20.6	66.7	60.1
Complete Downturns	49	18.2	8.7	30.7	28.4
Complete + ongoing downturns	62	18.4	12.5	28.8	27.5

Source: IMF Working Paper, Research Department, “ How Long Do Housing Cycles Last? A Duration Analysis for 19 OECD Countries”. Prepared by Philippe Bracke. Authorized for distribution by Prakash Loungani, October 2011

III. Housing Investment leads the economic cycle in the USA

Housing Starts



Note: Housing Starts, thousands of New Privately Owned Housing Units Started, monthly data, shaded areas denote recessions

Residential Investment		
	USA	Euro Area
Cyclicalit	procycl	procycl
Lead/Lag relation with real GDP	+2	+2

1986 – 2008
Lead/Lag in quarters

Real House Prices		
	USA	Euro Area
Cyclicalit	procycl	procycl
Lead/Lag relation with real GDP	-5	+1
Lead/Lag relation with real res. inv.	0	0

Real Mortgage Debt		
	USA	Euro Area
Cyclicalit	procycl	procycl
Lead/Lag relation with real GDP	+3	+3

Source: “Housing, consumption and monetary policy how different are the us and the euro area?” by Alberto Musso , Stefano Neri and Livio Stracca ECB Working Paper Series No 1161, February 2010

III. Short-term Greek economic outlook

		2011	2012
	%GDP	%change	%change
Private final consumption	76.1	-9.4	-6.1
Gen Gov consumption	17.2	-8.5	-9.0
Total consumption	83.3	-9.2	-6.7
Gross fixed capital formation	14.8	-15.0	-5.0
Domestic demand	107.3	-10.0	-6.5
Imports g&s	27.7	-11.7	-7.6
Exports g&s	20.3	8.7	6.2
Real GDP Growth		-5.8	-3.2
GDP Deflator		1.7	0.7

Simulation Assumptions: Real disposable income -11.7% in 2011, -7.6% in 2012, $\Delta(\text{consumption}) = 80\% \Delta(\text{disposable income})$ due to intertemporal consumption smoothing, Exports a function of ULCs & unitary elasticity w.r.t. trading partners' growth rates, unitary elasticity of imports w.r.t. net disposable income.

Positive factors:

- ❖ Tourism
- ❖ Legal framework is gradually being clarified – e.g. National Cadastral (Ktimatologio S.A.), unlicensed dwellings
- ❖ Reestablishment of macroeconomic stability (e.g. 26th October decisions, new Eurozone framework)

Negative factors

- ❖ Demographics
- ❖ Lower incomes
- ❖ Ever-changing tax environment
- ❖ Credit constraints

- ❖ The Real Estate market was not a problem in Greece
- ❖ Nevertheless, as expected it suffers from the historically severe economic downturn
- ❖ The characteristics of the Greek housing cycle
 - ✓ Large credit expansion
 - ✓ A market led by fundamentals
 - ✓ High occupancy rates
 - ✓ Greek households viewed dwellings as safe long term investments
- ❖ Empirical research suggests that the duration and amplitude of the downturn will be smaller than the upturn
- ❖ Investment in housing is a leading indicator for economic growth
- ❖ As expected, the future of the Real Estate market depends mostly on the Greek macroeconomic environment

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