Conference on "Greece, Portugal, Spain and The European Sovereign Debt Crisis"
Time: 1:00 PM - 6:00 PM
Location: Lower Level Conference Room, Busch Hall

1 p.m. - 6 p.m.	**Conference on "Greece, Portugal, Spain and The European Sovereign Debt Crisis"** 1:00 pm. Welcome: Professor YANNIS M. IOANNIDES, Tufts University and Greek Study Group, Center for European Studies, Harvard 1:15--2:15 pm "The Greek Economy and Its Stability Program" Professor GIKAS A. HARDOUVELIS, University of Piraeus and Chief Economist and Director of Research, Eurobank EFG, Athens 2:15--3:15 pm Chair: Dr. ELENI M. ODONI, Greek Study Group, CES, Harvard "Portugal's Great Depression and the 2010 Debt Crisis" Professor RICARDO REIS, Columbia University 3:15--4:15 pm Chair: Professor ELIAS PAPAIOANNOU, Dartmouth College "Spain: The 'Fiesta' Years and the Bust" Professor TANO SANTOS, Columbia University 4:15--4:45 COFFEE BREAK PANEL DISCUSSION 4:45-6:15 pm Chair: Professor GEORGE-MARIOS ANGELETOS, MIT Participants: Professor LUCAS PAPADEMOS, University of Athens Professor COSTAS AZARIADIS, Washington University in St. Louis Professor ENRICO SPOLAORE, Tufts University

THE GREEK STABILITY PROGRAM IN THE POST CRISIS WORLD

October 22, 2010

Conference on
"***Greece, Portugal, Spain and the European Sovereign Debt Crisis***"
Minda de Gunzburg Center for European Studies, Harvard University & Tufts University

Gikas A. Hardouvelis
Professor, Department of Finance, University of Piraeus
Chief Economist & Director of Research, Eurobank EFG

Eurobank EFG

TABLE OF CONTENTS

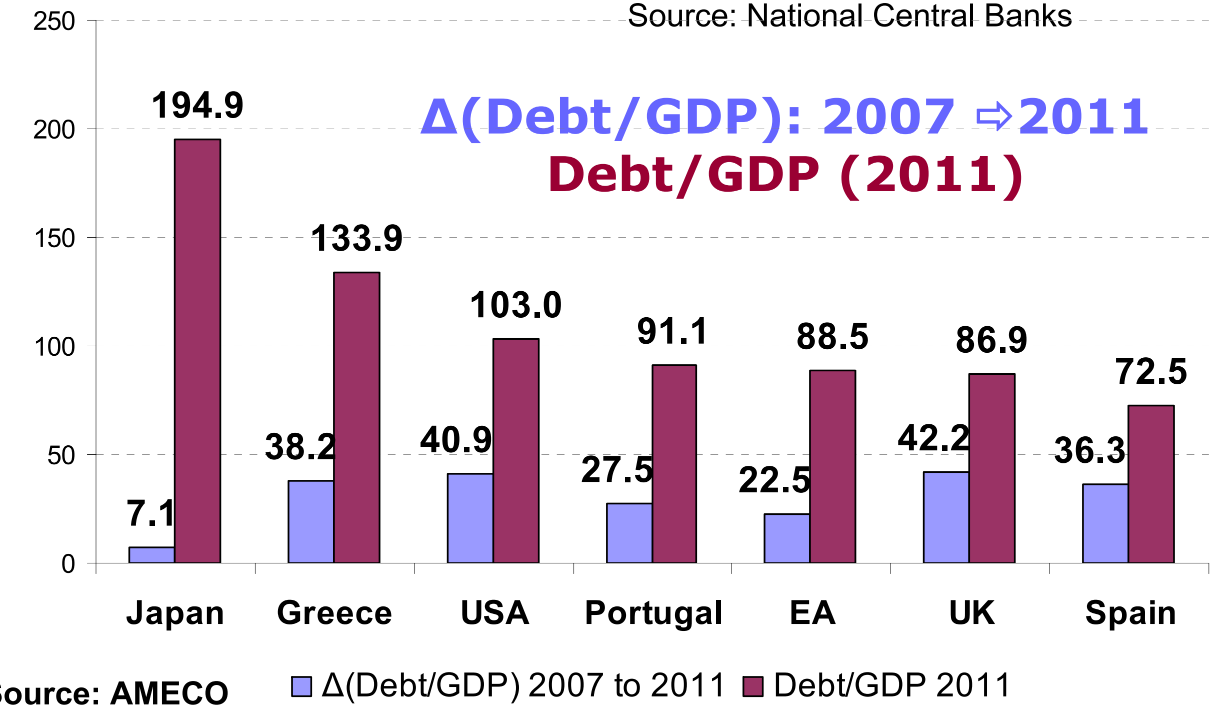
I. The world avoided a deeper recession thanks to expansionary fiscal & monetary policies

- ✓ Monetary policy responded with unusual vigor, Quantitative Easing
- ✓ Large change in government spending as well
- ✓ Hence, a repetition of the experience of the 1930s was avoided
- ✓ Future growth is burdened by large General Government Debt-to-GDP ratios

Expansionary monetary policy by central banks, Aug 2007 - Sept 2010

	Decline in policy rate	Increase in Central Bank Assets	Current C. B. Assets
USA	- 5.00 %	164 %	\$2.3 tn
Euro Area	- 3.00 %	65 %	€1.9 tn
UK	- 5.25 %	199 %	£244 bn

Source: National Central Banks



Source: AMECO

I. Risk premia increased and will stay higher than pre-crisis 2007 levels

Eurobank EFG

5-yr credit default swap rates for:	End-June 2007 PRE-CRISIS	End-August 2008 PRE-LEHMAN	End-March 2009 CRISIS PEAK	End-October 2009 PRE-GREEK CRISIS	Oct 18th 2010 TODAY
JP Morgan	19.3	143.9	201.1	63.2	94.6
Citigroup	11.7	305.5	631.5	179.8	170.9
USA	-	-	-	22.0	42.0
Germany	4.0	11.9	57.5	20.3	32.1
Japan	2.2	19.2	92.0	49.3	55.4
China	12.4	87.1	160.5	79.2	62.4
Turkey	145.8	297.1	401.6	188.7	133.6
Russia	43.2	261.5	501.1	190.2	134.4
Spain	3.4	50.4	111.9	70.3	198.8
Greece	5.5	62.0	196.0	140.2	665.5
Portugal	4.2	50.9	105.0	56.0	342.6
Ireland	-	11.0	264.1	133.2	394.6

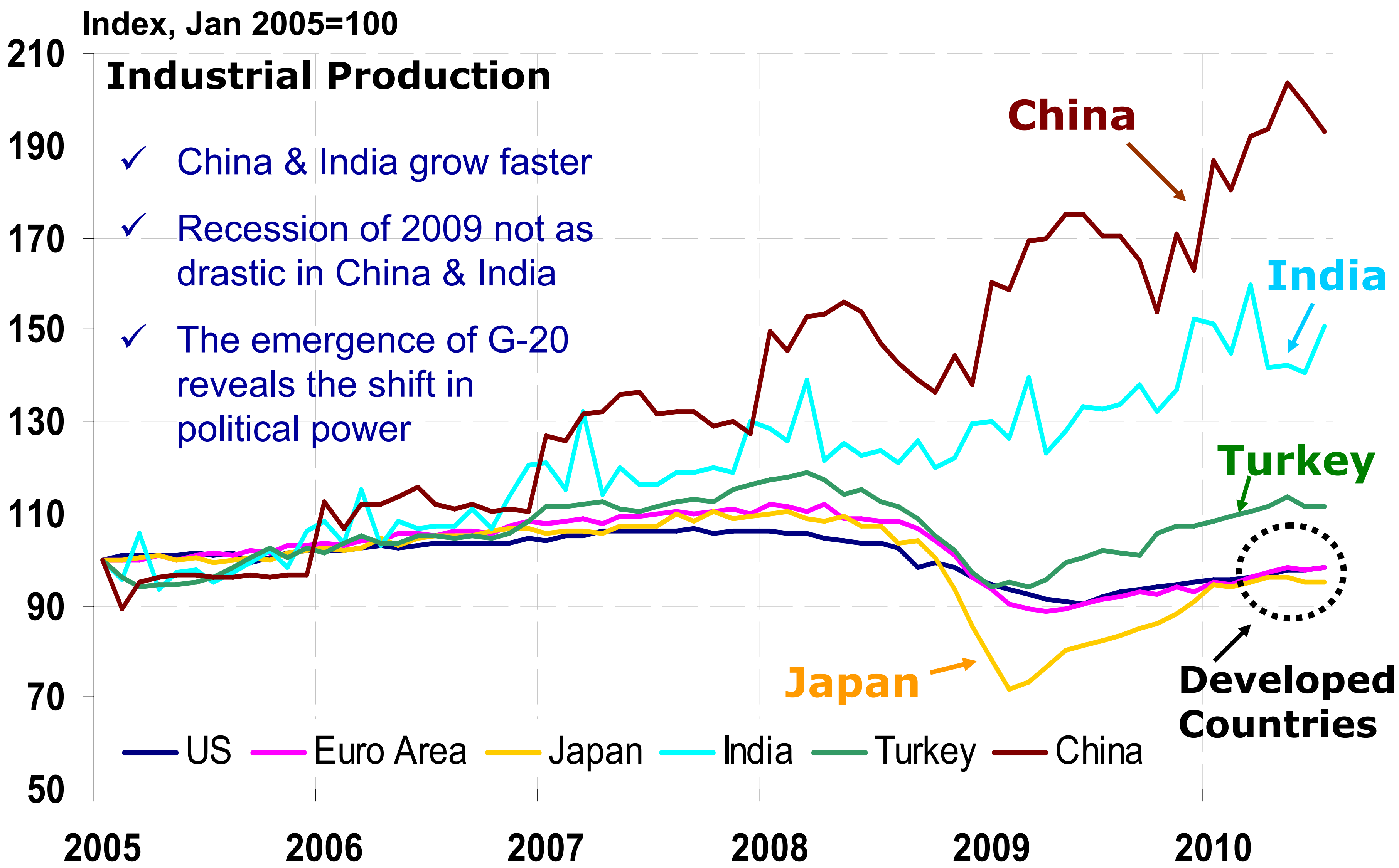
Source: Bloomberg

I. Slower world growth ahead

The Great Recession is likely to leave its <u>permanent</u> marks: A more stable world financial system with stricter regulation and supervision, yet with lower world growth in the next decade due to:

1) **Higher real interest rates**
   - ✓ Risk premia will stay high relative to the pre-crisis period
   - ✓ The cost of financial intermediation will increase due to stricter regulation: Basel III
   - ✓ Crowding out in the bond market by governments that compete for funding
   - ✓ Central bank interest rates will increase
2) **Future deleveraging** of the government sector, hence more restrictive fiscal policy relative to the pre-crisis period
   - ✓ Governments spent their way out of a huge recession, but in the future they cannot be as expansionary
3) **Mediation of global imbalances** will reduce world aggregate demand, as the US consumer will increase its savings rate (perhaps also if yuan appreciates) and, hence, exports to the US will decline
   - ✓ The Chinese, Indian or European consumer cannot fill in the gap left by the Americans

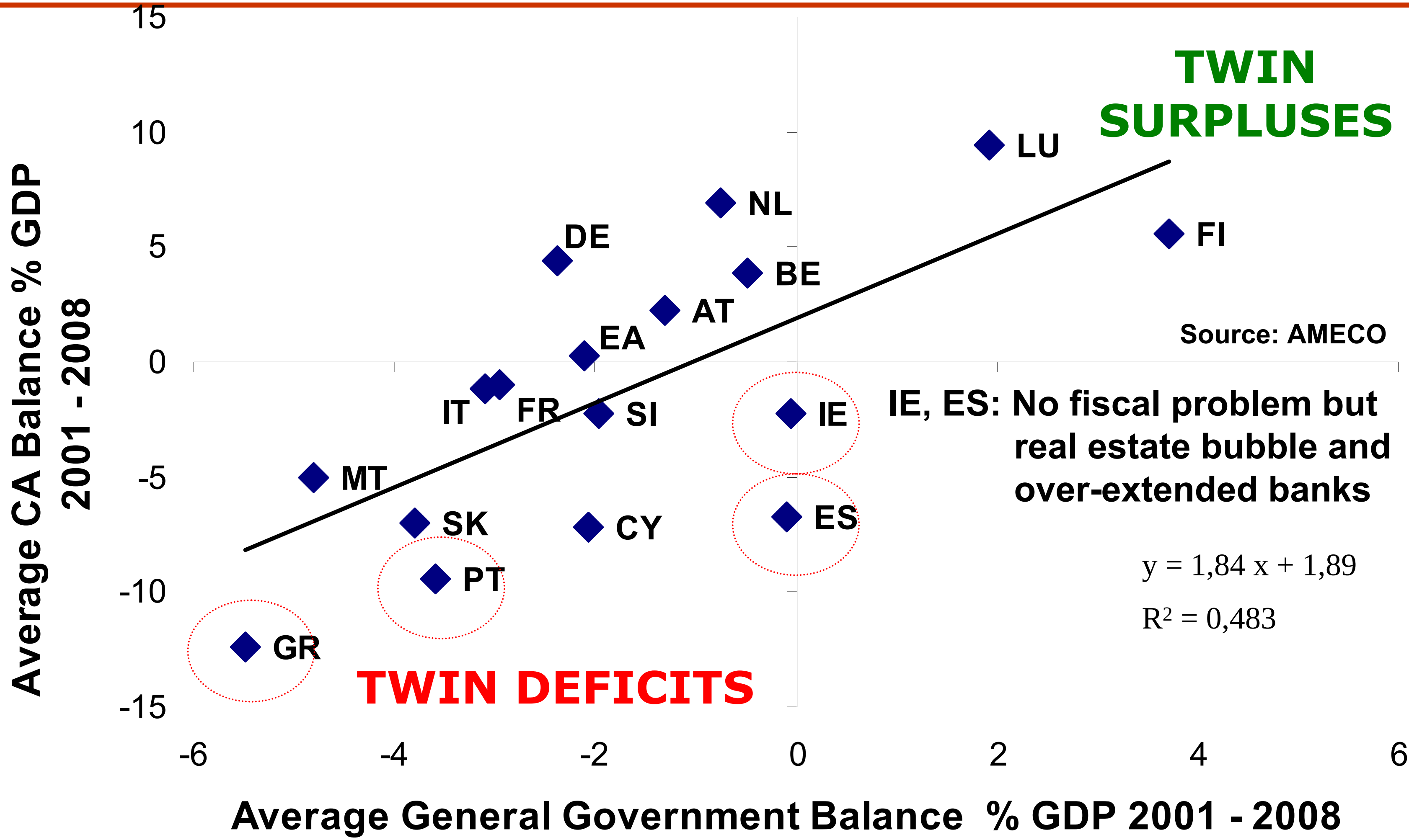
I. A two-speed world: Emerging countries outperform



Source: Ecowin, Eurobank EFG Research

II

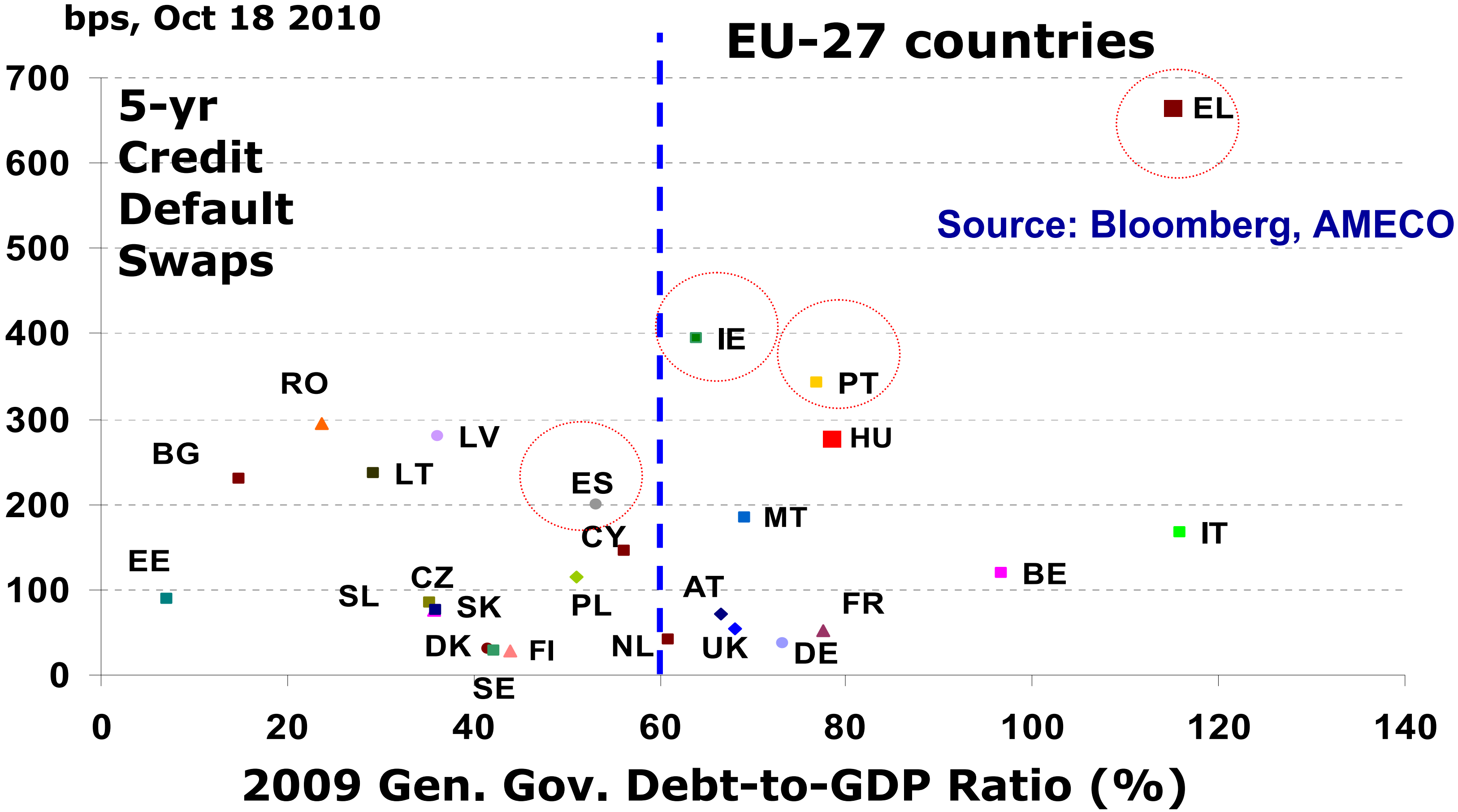
II. A two-speed Europe: Greek crisis uncovered competitiveness gaps within EMU



The worry:

1) ***Current account deficits****: Not caused by rational expectations of future higher incomes and an influx of capital seeking investment opportunities, but rather excessive optimism, leverage & consumption*
2) ***Fiscal deficits****: Gov money was not channeled to investment*

II. Financial markets now discriminate sharply among EMU members

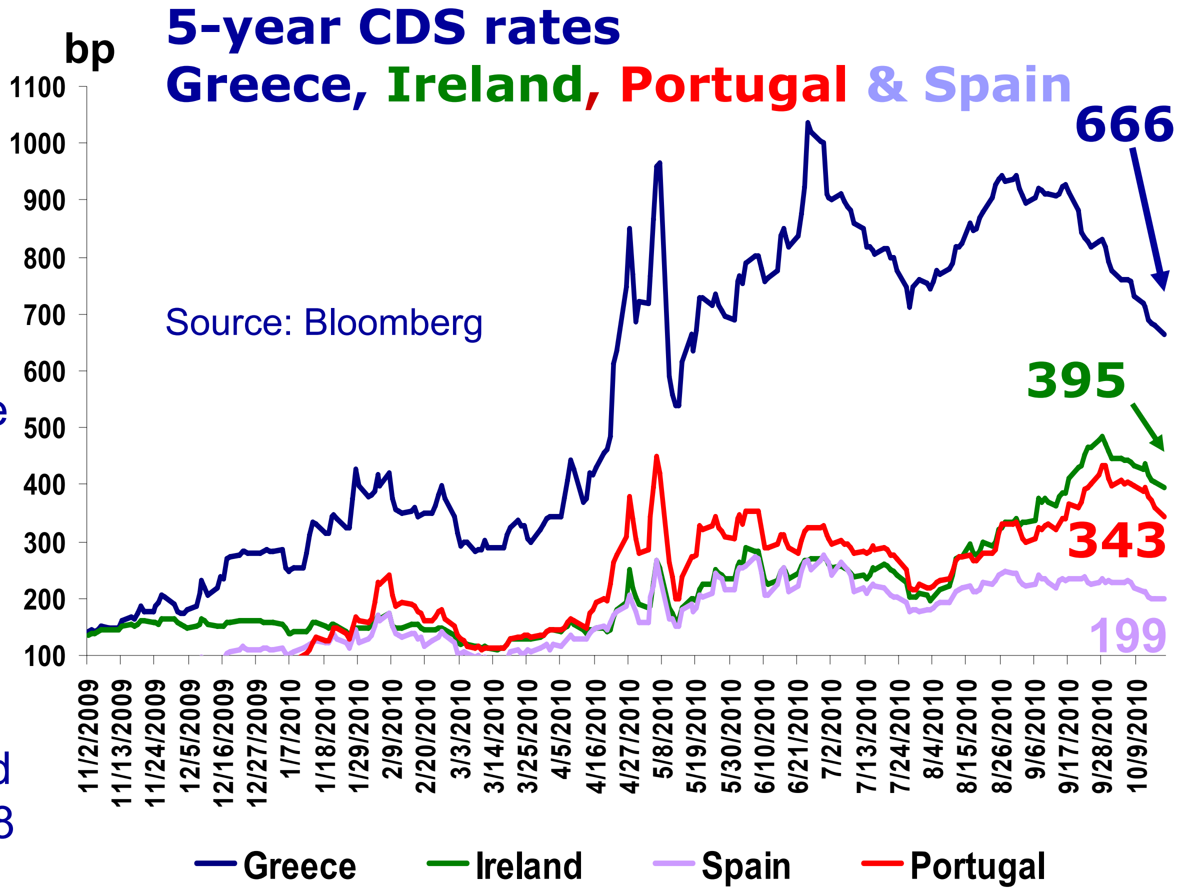


- ✓ Current Public Debt/GDP is not the only variables that unsettles markets
- ✓ Other variables that shape the size of market risk premia are: (a) Growth prospects; (b) Private debt; (c) Banking sector asset size; (d) Size of future deficits; (e) Real estate bubbles, etc.

II. Financial markets are unsettled particularly since November 2009

Nervous market may be calming down a bit lately

- ✓ On October 18th, 5-yr CDS was **665.5 bps** implying
  - ❖ a cumulative risk-neutral **probability of 27.0%** for a **total capital loss** any time during the 5-year period,
  - ❖ or a **98.7% probability** for a **capital loss of 10%**
- ✓ Even more worrisome is the following: On October 18th the 2-year Greek Government bond yield was 7.6%, a spread of 668 bps over Bunds!!



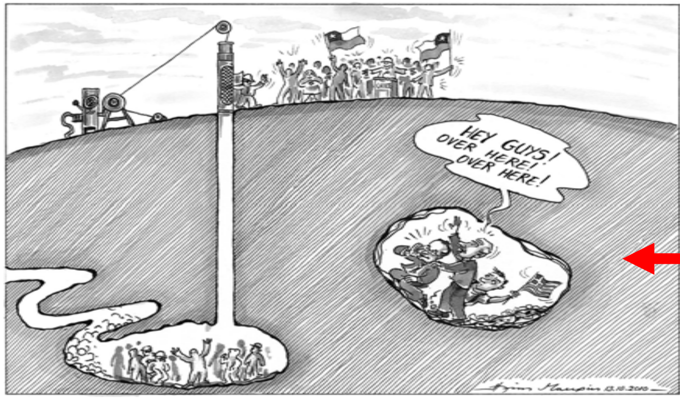
- ✓ Yet Greece does not need to go the market to get financed for 2.5 years! Illiquidity? Overreaction? The market seems to believe that:
  - ❖ Either the Greeks are incapable of absorbing the €110 bn rescue funds
  - ❖ Or the EMU members will not be able to deliver the funds

II. Current S&P country ratings

EU-27 Long Term Credit Rating (October 18, 2010)									
AAA	LU	NL	SE	UK	AT	DK	FI	FR	DE
AA+	BE								
AA	SI	ES							
AA-	IE								
A+	CY	SK	IT						
A	CZ	EE	MT						
A-	PL	PT							
BBB+									
BBB	BG	LT							
BBB-	HU								
BB+	RO	EL							
BB	LV								
BB-									

II. EMU Policy response: Late & ad hoc, but decisive

1. An MOU on May 3-5 between IMF/EMU on one side and the Greek government on the other, with conditionalities and €110bn 3-yr loan package for Greece
   - ✓ **€ 80bn EMU funds**
   - ✓ **€ 30bn IMF funds with lower interest rate**



Cartoons in local Greek Press:

"We are in a deep hole"

Chilean-type rescue needed.

*Yet **Greek problem is also European***

2. Euro Area support program of € 750bn initiated on May 9-10
   - ✓ **€ 60bn immediate assistance,**
     - ❖ *Extension of EU Commission facility for "circumstances beyond their control", Article 122.2*
   - ✓ **€ 440bn "European Financial Stability Facility"**
     - ❖ *loan guarantees from EMU States*
   - ✓ **€ 250bn IMF funding**
     - ❖ *on a "case by case basis"*
   - ✓ **ECB nuclear option**
     - ❖ *Secondary market purchases of sovereign debt*

Greek PM tied to the euro

II. EMU Policy response: The EU Commission proposals on 29/9/2010

- ✓ A Monetary Union is not a regime of fixed exchange rates, nor a Currency Board. EMU nations share a central bank and a common currency.
- ✓ Greece cannot take a "leave of absence" from EMU, it would have to leave the EU
- ✓ Deeper political union is not acceptable by member nations and EMU dissolution means severe loss of political capital. ⇨ **Stricter EMU fiscal mechanism** is coming that would enhance EMU stability and be **beneficial for undisciplined countries**:

Six EU Commission legislative proposals, compatible with Lisbon Treaty (*do not include "ordered default" guidelines, voting sanctions nor mechanism for EU exit*):

1) Boost the **preventive** part of **SGP** (1466/97): Follow prudent fiscal policies in good times to build up buffers for bad times, i.e. Convergence towards a Medium-Term-Objective
2) Boost the **corrective** part of **SGP** (1467/97): Reduce DEBT/GDP annually by 1/20th the average gap from 60% of the last 3 years
3) Financial **sanctions** on EMU members: Interest-bearing deposit for preventive part, non-interest-bearing deposit = 0.2% of GDP for corrective part, to be transformed to a fine if non-compliance through a "**Reverse-Voting**" mechanism
4) Minimum requirements on budgetary process of member states (accounting systems, statistics, forecasting practices, fiscal rules, etc)
5) New regulation on macroeconomic imbalances: The **Excessive Imbalance Procedure** based on a scoreboard of economic indicators, that would trigger corrective action
6) Sanctions if Member State repeatedly fails to act on Council EIP recommendations: Annual fine of 0.1% of its GDP, which can be stopped by a qualified majority.

III

I. The global economic environment

II. EMU tensions

III. **Characteristics of the Greek economy**

IV. The Greek stability program

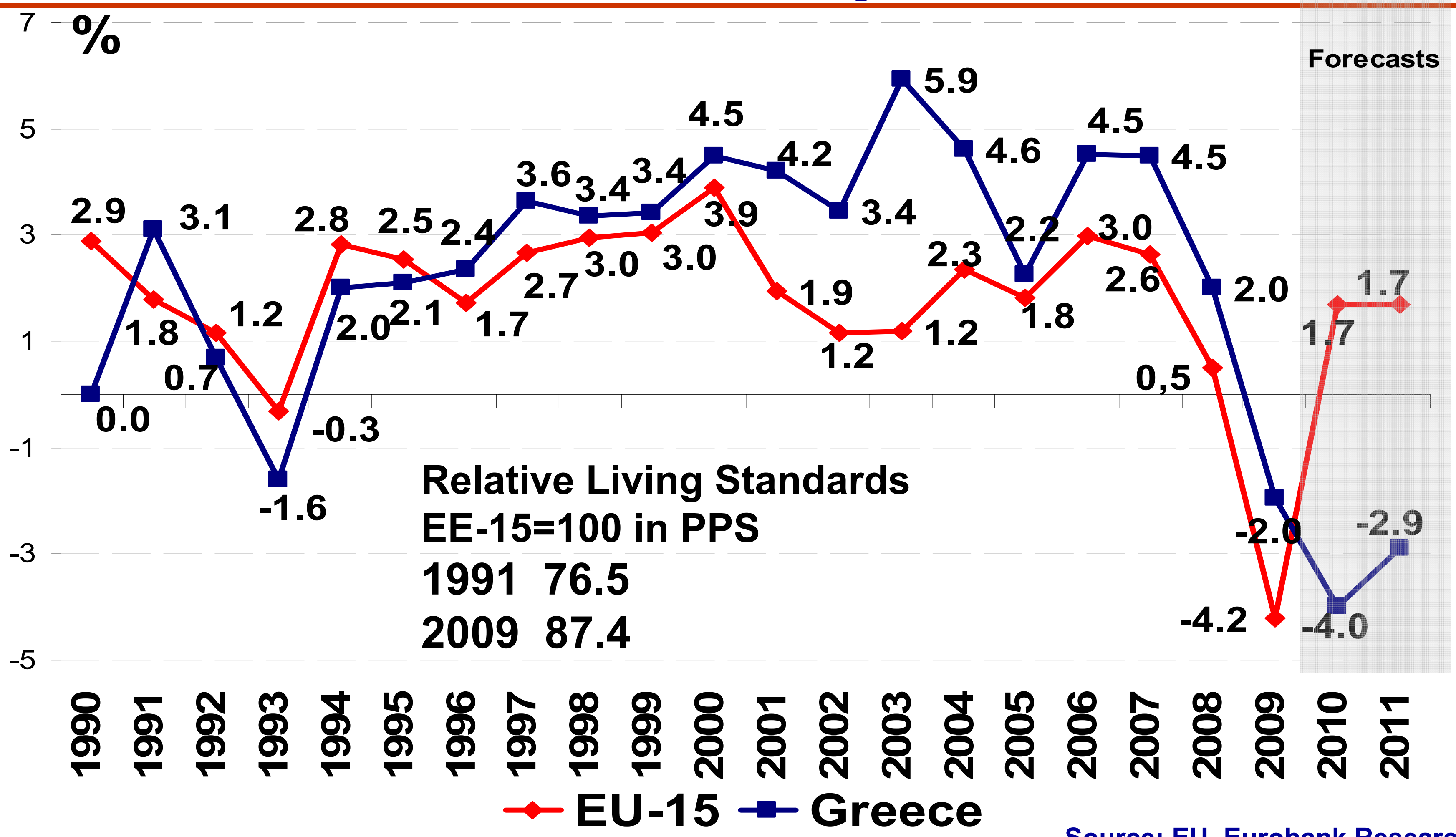
V. Greece: Can growth come back?

VI. Summary

III. Greece: General characteristics

2009	Greece	EA-16	World
Population (mil.)	11.3	328.6	6,756.0
Geographical Area (km²)	132.0	2,578.8	510,072
GDP per capita (€)	21,082	27,271.4	7,704.9
Living standards (UN ranking among 182 countries)	25	Median 17	
Life expectancy (years)	80	80.5	66.1
Cars per 1000 inhabitants (2006)	407	506	
Suicides / 100 thousand inhabitants	2.8	8.8	
Primary Sector (% GDP)	4.0	2.2	6.0
Secondary Sector (% GDP)	16.9	24.7	30.6
Tertiary Sector (% GDP)	79.1	73.0	63.4
Tourism (% GDP)	9.8	15.2	9.4
Construction (% GDP)	4.5	5.3	
Public Sector (Gen. Gov. Expenditures % GDP)	50.5	50.7	
Exports (Goods & Services, % GDP)	18.8	36.3	
Imports (Goods & Services, % GDP)	28.5	35.0	
Private Consumption (% GDP)	72.6	57.6	
Investment (% GDP)	16.8	19.7	
Gen. Gov. Debt (% GDP)	115.1	78.7	

III. Real growth rates in Greece were higher than in EU-15 from 1996 through 2009

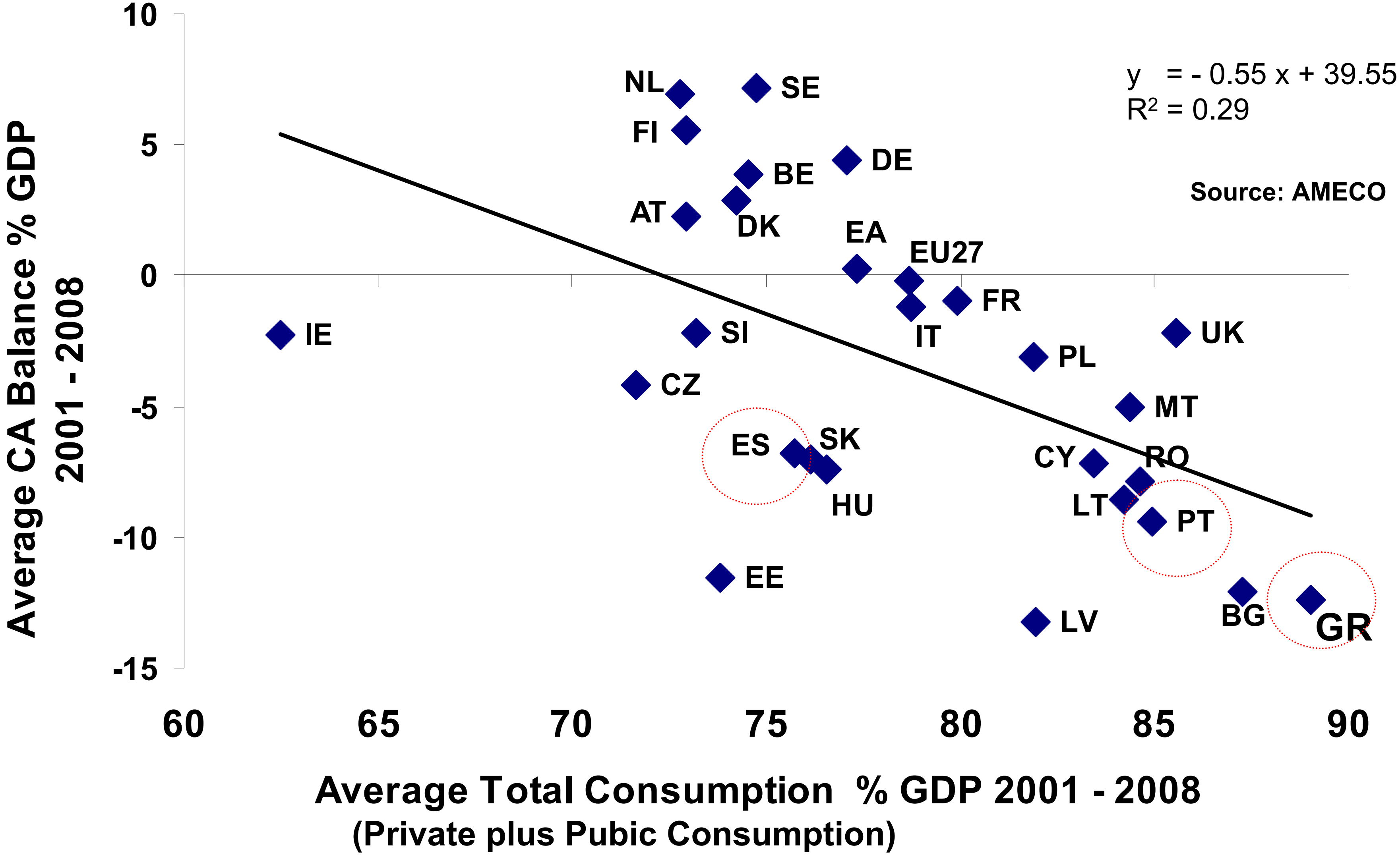


Source: EU, Eurobank Research

Greece: **From** **boom** **to** **bust & market worries,** **How come?**

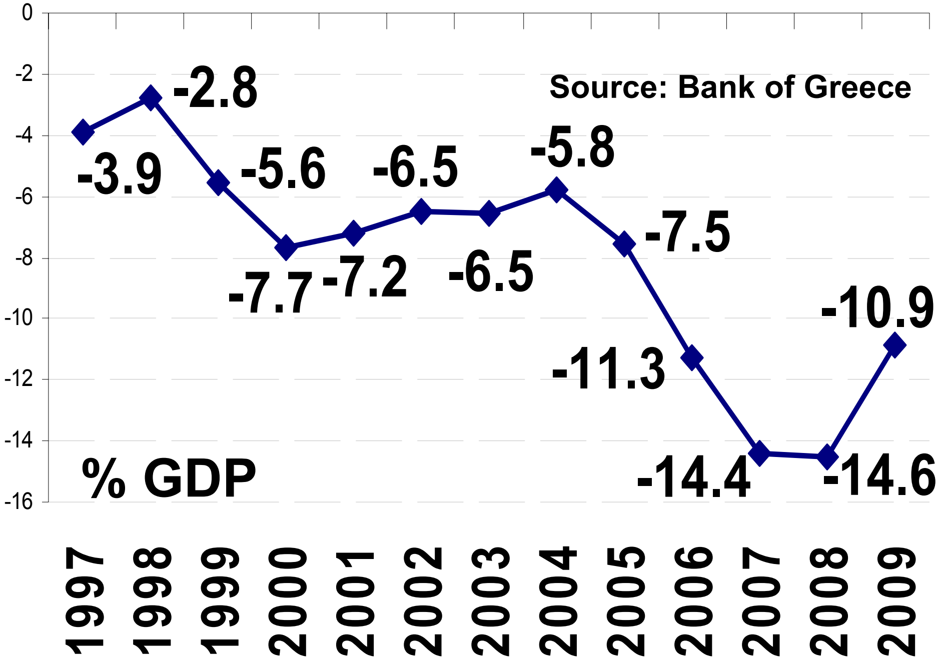
Answer: **Not an equilibrium growth**

III. Over-consumption in Greece

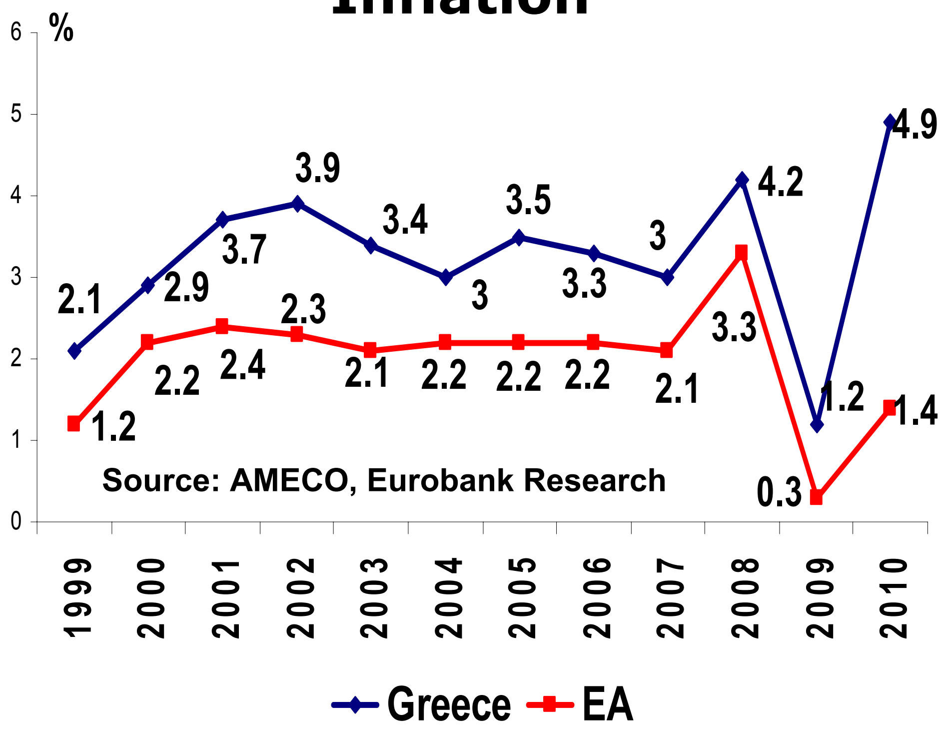


III. Lack of competitiveness showed up in current account and in inflation differential

Current Account Balance



Inflation



	2009	
Current Account (€ mil)		**-25,818.7**
Goods		**-30,767.3**
Services		**12,640.2**
Income		**-8,984.3**
Current Transfers		**1,292.6**

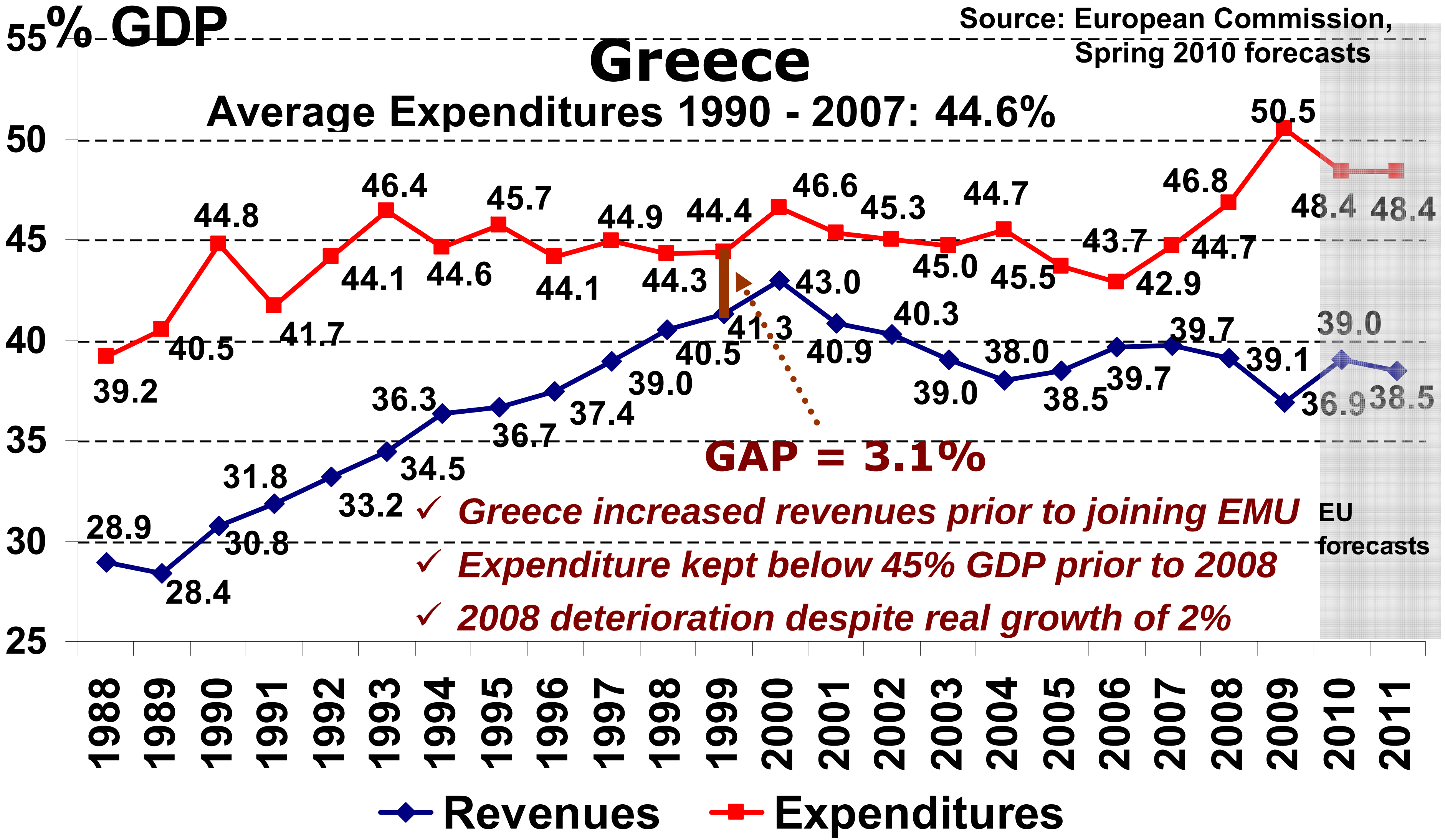
III. Ease of Doing Business rankings reveal lack of competiveness

	Rank	Starting a business (days)	Difficulty of hiring (0-100)	Protecting Investors (0-10)	Exporting Goods (days)	Paying Taxes (hours per year)
OECD		13	26.5	5.8	10.5	194.1
Ireland	7	9	11	8.3	7	76
Bulgaria	44	18	17	6	23	616
Portugal	48	6	33	6	16	328
Romania	55	10	67	6	12	202
Spain	62	47	78	5	9	213
Turkey	73	6	44	5.7	14	223
Czech Rep.	74	15	33	5	17	613
Greece	109	19	44	3.3	20	224

Source: World Bank *Ease of doing business 2010*

- ✓ **World Bank: In 2009 Greece ranked 109th out of 183 countries**

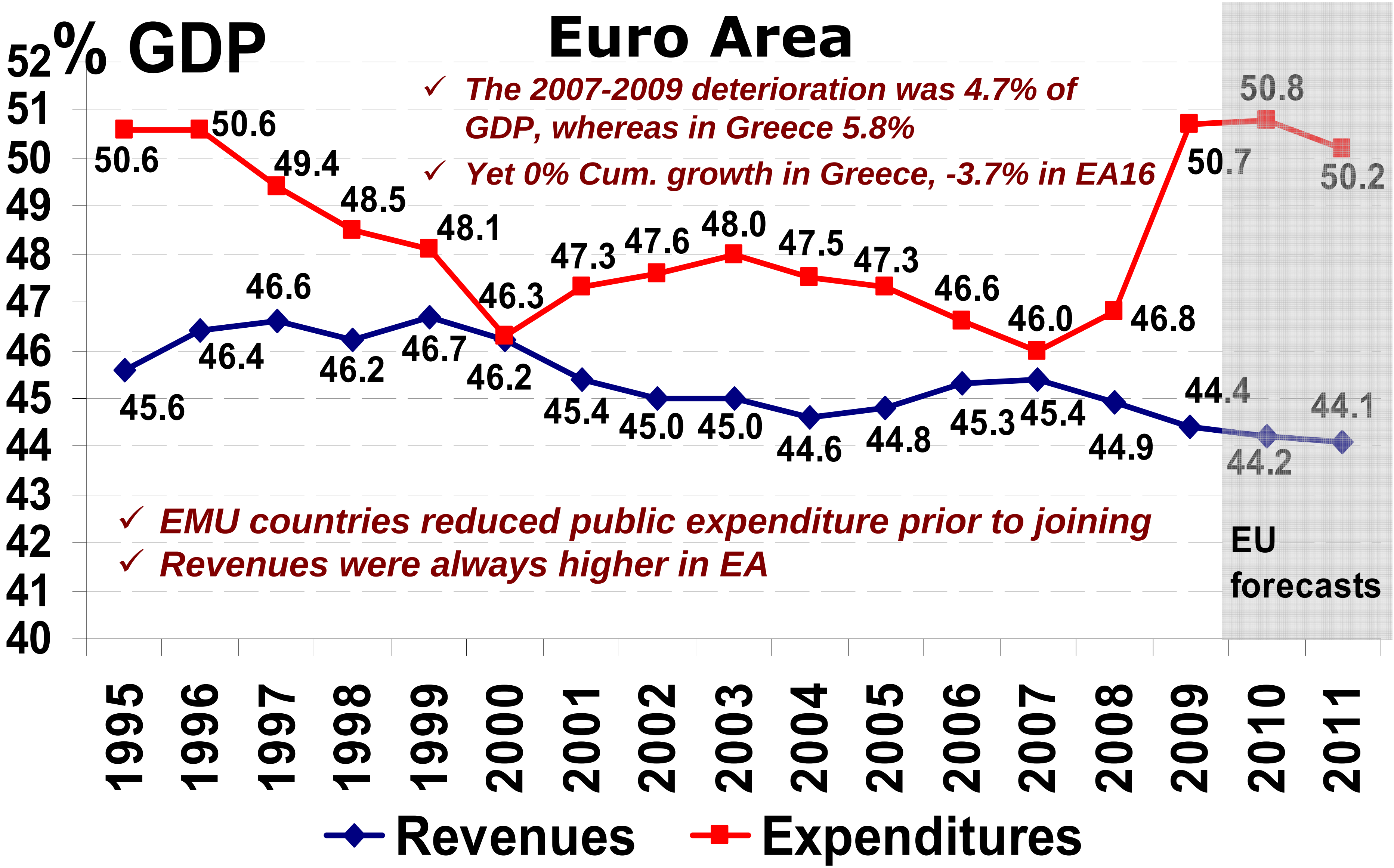
III. Almost always in fiscal trouble, but fiscal mess grew prior to the onset of the 2009 recession



- ✓ 1999 is examination period for entering EMU: Deficit **erroneously** revised to 3.1% of GDP, with ex-post switch in military expenditure accounting

III. Deterioration was not due just to the recession as a comparison with EA16 reveals

Eurobank EFG



Source: European Commission, Spring 2010 forecasts

III. Breakdown of Expenditure and Revenues

	Total expenditure % GDP		Intermediate consumption % GDP		Employee Comp. % GDP		Interest Rate % GDP		Social benefits % GDP	
	1995	2007	1995	2007	1995	2007	1995	2007	1995	2007
Greece	**45.8**	**44.7**	**5.0**	**5.7**	**10.0**	**11.2**	**11.3**	**4.5**	**13.5**	**17.6**
EA16	**50.6**	**46.0**	**4.9**	**5.0**	**10.9**	**10.0**	**5.4**	**3.0**	**16.8**	**15.8**

	Total revenues % GDP		Indirect taxes (VAT) % GDP		Direct taxes % GDP		Social Contributions % GDP	
	1995	2007	1995	2007	1995	2007	1995	2007
Greece	**36.6**	**39.7**	**12.1**	**12.5**	**6.6**	**8.0**	**11.2**	**13.4**
EA16	**45.6**	**45.4**	**12.2**	**13.5**	**11.1**	**12.4**	**17.0**	**15.1**

Source: AMECO, data for EA16 go back to 1995

- ✓ Expenditure in Greece switched from interest payments to social benefits
- ✓ The large interest payments of the past is a **strong argument against default today**
- ✓ A drop in interest payments occurred in all of EA16
- ✓ Social contributions increased in Greece but declined in EA16

IV

I. The global economic environment

II. EMU tensions

III. Characteristics of the Greek economy

IV. The Greek stability program

V. Can growth come back in Greece?

VI. Summary

IV. Revised EU/IMF/ECB adjustment program: Key characteristics

- ✓ Emphasis on **fiscal discipline, structural reforms and competitiveness**, but **no explicit growth strategy**
- ✓ Key characteristics:
  - ❖ **Real growth resuming in 2012** but staying well below the 1996-2007 historical norm
  - ❖ **Inflation subdued,** never above ECB target of 2%
  - ❖ Interest rate risk premia vs. Germany to decline to 100 bps
  - ❖ **Front-loaded** reforms and drastic first-year fiscal tightening with a large subsequent fiscal cushion, with only €1 bn annual revenues from privatizations in 2011-15, and with no zeal to ever zero the deficit
  - ❖ EU/IMF/ECB detailed **conditionalities** with quarterly targets as a strong disciplinary device
  - ❖ Drastic reduction in real wages, but effort to minimize the burden on the poor
  - ❖ Real **pension solution,** which controls for hidden future liabilities
- ✓ **Debt-to-GDP ratio declines to 111%** by year 2020 in the baseline scenario
- ✓ Yet, assuming real growth of 1% higher per year, which is closer to historical norm, EU/IMF forecasts that it would lead to a Debt-to-GDP ratio in 2020 of **74%**
- ✓ Further upward revision in 2009 Debt/GDP expected in November, perhaps even the 2010 number, as some companies may be added into the general public sector
- ✓ Eurobank figures had already assumed 2009 Debt/GDP at 122%
- ✓ Also, future upward revisions in GDP ought to act as a counter weight.

IV. The Revised EU/IMF/ECB adjustment program

Assumptions

	2009	2010	2011	2012	2013	2014	2015	2020
GDP Growth (%)	-2.0	-4.0	-2.6	1.1	2.1	2.1	2.7	3.3
GDP deflator (%)	1.4	3.5	1.3	0.4	0.7	1.0	1.1	1.6
Nom. GDP (€ bn)	237	236	233	236	243	251	260	329
Int. Rate (%)	5.0	4.9	4.9	5.3	5.6	5.8	5.8	5.9
Bund Rate		225	275	350	350	350	350	350

Sensitivity analysis

Debt-to-GDP	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2020**
Baseline	**115**	**130**	**139**	**144**	**144**	**140**	**134**	**111**
Higher growth **+1% per year**	**115**	**129**	**135**	**137**	**134**	**126**	**118**	**74**
Lower growth **-1% per year**	**115**	**132**	**144**	**151**	**155**	**154**	**152**	**154**

Source: Revised EU/IMF/ECB adjustment programme

- ✓ Even in the optimistic scenario, Debt/GDP in Greece will be in 2020 where Spain's is in 2011

IV. More on the Revised EU/IMF/ECB program

	2009	2010	2011	2012	2013	2014	2015	2020
Current Account (%GDP)	-11.2	-10.8	-7.8	-6.9	-6.0	-5.1	-4.0	---
Gen Gov Deficit (%GDP)	**-13.6**	**-7.9**	**-7.3**	**-6.2**	**-4.7**	**-2.5**	**-2.0**	**---**
(€ bn)	-32.3	-18.6	-17.0	-14.7	-11.5	-6.2	-5.1	---
Gen Gov Debt (%GDP)	**115.2**	**130.3**	**139.4**	**143.6**	**144.0**	**139.5**	**134.0**	**111**
(€ bn)	273.5	307.5	324.6	339.4	350.0	349.5	348.7	365.1
Interest Expense (%GDP)	**5.0**	**5.6**	**6.5**	**7.2**	**7.8**	**8.1**	**7.8**	**---**
(€ bn)	11.9	13.3	15.2	17.1	18.9	20.4	20.3	---
Primary Surplus (%GDP)	**-8.6**	**-2.2**	**-0.8**	**1.0**	**3.0**	**5.7**	**5.9**	**6.0**
(€ bn)	-20.4	-5.3	-1.8	2.4	7.4	14.2	15.2	19.7

Source: EU/IMF/ECB adjustment programme

IV. Conservative Eurobank EFG baseline scenario on Government Debt Dynamics

	2009	2010	2011	2012	2013	2014	2015	2020
Real GDP (%)	-2.0	-4.0	-2.9	1.5	2.2	2.5	2.7	2.7
GDP deflator (%)	1.4	3.9	1.3	1.5	1.8	2.0	2.0	2.0
Nom. GDP (€bn)	237.5	236.9	233.0	240.1	249.8	261.1	273.5	345.0
Nom.GDP (%)	-0.7	-0.3	-1.6	3.0	4.0	4.5	4.8	4.8
Pr.Balance (€bn)	-20.4	-3.5	1.3	5.8	10.4	18.5	19.4	25.8
Pr Bal. (%GDP)	-8.6	-1.5	0.6	2.4	4.1	7.1	7.1	7.5
Int. cost (%GDP)	5.0	5.9	6.3	7.1	7.4	7.6	7.2	5.7
Int. cost (%Rev.)	13.6	14.6	14.9	16.7	17.7	18.1	17.7	15.4
Gen.Gov.Debt (% GDP)	122.0	129.7	137.6	138.2	136.2	130.7	124.9	**94.0**

Source: EU/IMF/ECB adjustment programme, Eurobank EFG Research projections

- ✓ **Debt-to- GDP** stabilizes in 2012 and in 2020 is **17ppts lower** than the EU/IMF/ECB baseline
- ✓ <u>**Assumptions**</u>: 1) Average annual real GDP growth broadly in line with EU/IMF/ECB baseline
  2) GDP deflator higher by *ca* 0.85ppts for the 2012-2020 period
  3) Annual degree of implementation of revenue-side measures ~ 0.75%,
  4) Elasticity of tax revenue w.r.t. nominal GDP ~ 1.0 (in line with long-term average)

IV. Material risks exist

a) Will the recession end soon? As European belt-tightening is currently taking place, low European growth may cause Greek economic growth to stall. EU funds are not sufficiently mobilized yet, while privatizations have taken the back seat. Drastic initiatives on growth required.

   ***Yet**, Greece is a relatively closed economy and over half of its exports are channeled outside the Euro Area. In addition, core EU still growing. Once sentiment stabilizes, private investment may stop declining, giving a boost to domestic output*

b) Risks of the Gargantuan task of grabbing tax evasion without instituting moral hazard through frequent tax amnesties

   ***Yet**, a switch to a stable and transparent tax regime requires time to implement and in the meantime revenue collection expected to suffer*

c) Risk of silent anger from the population in H1 2011 with the rise in unemployment and decline in incomes and if government fails to address the rampant tax evasion

   ***Yet**, MOU requirements to push structural reforms– if followed – would avert this anger*

d) High bond risk premia may persist, which could prohibit Greece from tapping the bond market in two years or so

   ***Yet**, if program is successful ⇨ risk premia ought to decline, while a lengthening of the maturity of the EMU €110 bn loan is likely*

IV. Should Greece default if program were to succeed?

The argument goes that if the EU/IMF/ECB Program succeeds and **in 2012-2013** Greece begins generating the first **primary surpluses**, then it would be **tempted to restructure its huge debt**. However, this event cannot happen because:

1. A **Greek default would be an EMU decision**, not a Greek decision. By then an EMU fiscal mechanism would be present. Also, stakeholders of GGBs are primarily Greeks and other EMU members. They do not want a default.
   - i. Greek banks own approximately €45 bn, pension and other funds another €25bn, individuals around €15bn. Thus, a haircut would force the government to bail out its banking sector and its pension system
   - ii. EMU banks hold a major chunk of GGBs, most of it posted at the ECB as collateral. EMU members would object to a default. It may create FI bankruptcies in EA-16.
   - iii. The ECB holds significant amounts of GGBs both directly (~ €23 bn) and in the form of collateral. Greece cannot go against its own lender of last resort
   - iv. EMU countries have given €80 bn in loans (& IMF €30 bn), on which Greece cannot default
2. Risks of **contagion** in the European financial sector with a possible spread of fear for EMU sustainability
3. Huge adjustment costs for Greek borrowing during the default/restructuring process and **inability to tap the markets** for a long time
4. **Interest costs** will increase for the Greek **private sector** as well, reducing growth

IV. Factors which markets may have underestimated

1) Reforms are **drastic** & **on time,** particularly the pension, labor and fiscal ones - Government ahead of the curve

2) Unusually benevolent political environment

3) While additional measures in 2011 cannot be excluded, program contains **big cushions** and is executed by the book thus far; Revenue generation remains in question but action is taken

4) While the biggest current risk factor, an end of the recession by H2 2011 is within reach

5) In the intermediate-run, growth can come back - making the level of debt less onerous

   i. A strong private sector, which is under-levered with rich citizens, plus a conservative banking sector

   ii. There is a **strong growth potential** in Greece, especially if competitiveness is restored

IV.1 Pension reform is drastic

- ✓ New pension Law adopted on July 8. Contains safeguard clauses for parametric changes to be triggered in June 2011, pending full actuarial report.

Old Regime	2010	2020	2035	2060
Pension Exp. (% GDP) GR	11.6	13.2	19.4	24.1
Dependency*	56	59	78	102
Pension Exp. (% GDP) EA	11.2	11.6	13.2	13.9

Source: European Commission 2009

** Ratio of pensioners to contributors*

- ✓ Characteristics:
  - ❖ Fix system's parameters in order to reduce the expected <u>increase</u> in future annual state pension liabilities (by 2060) from 12.5% of GDP to 2.5% of GDP.
  - ❖ Retirement age **for everyone** at 65 by 2015, increasing in line with life expectancy after 2020 and every 3 years, and including a minimum contributory period of 40 years by 2015
  - ❖ **Early retirement** will be restricted to the age of **60** by 2015, will be penalized more than before (6% loss per year, including those insured prior to 1993)
  - ❖ Size of pension linked to **life-time contributions** (now: Best 5 years of last 10 of working life) and is price indexed, upper limit to be reduced
  - ❖ List of heavy and arduous professions to be reduced drastically, under a ceiling of 10% of labor force

IV.1 Labor reforms are drastic and continue …

- ✓ Maximum of firings per month more than doubled to 5% for most large companies
- ✓ Minimum wage of new entrants in labor force expected to be reduced from €740/month by ca 16% to €621/month
- ✓ Reduce overtime premia
- ✓ Allow firm-level agreements to prevail over industry-level or country-level
- ✓ In public sector, wages & pensions bill down **-15%** yoy in 2010 (-1.6% of 2009 GDP)
- ✓ In private sector, minimum nominal wages freeze for 2010, increase in line with Euro Area inflation for 2011-2012

2010 Q1	GR	EU16
Employment		
Total	**60.1**	**65.1**
Men	**71.8**	**70.8**
Women	**48.2**	**59.5**
Young (15-24)	**21.1**	**36.4**
Unemployment		
Total	**11.7**	**9.9**
Men	**9.1**	**10.2**
Women	**15.5**	**9.6**
Young (15-24)	**30.9**	**20.5**

Future developments:

- ✓ Symmetry in central arbitration
- ✓ Elimination of automatic extension of sectoral agreements to those not represented in the negotiations
- ✓ Local contracts in areas of high unemployment can now contain wages for new entrants at levels below minimum

IV.1 Fiscal reforms are drastic and continue …

- ✓ "Kalikrates" Law adopted in June, reforming public administration at the local level, reducing the number of municipalities from 1034 to 325, plus eliminating one layer of state bureaucracy (by dissolving 54 prefectures and transferring their powers to the existing 13 peripheries).
- ✓ New Financial Management Law adopted on July 29, amending the budget process:
  - ❖ 3-year fiscal strategy
  - ❖ Top-down budgeting with explicit ceilings for state budgets and expenditure estimates by line ministries
  - ❖ Standard contingency margins, commitment controls, supplementary budget for over spending
- ✓ By end of December: (a) Commitment register, (b) publish monthly data on General Government, (c) report all arrears monthly
- ✓ Single Payment Authority operational by December for Central Government and March for General Government.
- ✓ Simplify public sector remuneration following a Functional review by December
- ✓ Details of full general government (including local governments, pension funds, etc) to be revealed in the budget process
- ✓ Establish an OMB-equivalent in the Parliament and adopt a revenue rule by December
- ✓ Independence of the Statistical Agency established last December and new regulations for Statistical Action Plan by this December

IV.1 More reforms …

Taking place now:

- ✓ More fiscal measures (revenue increasing & cost cutting), in particular adoption of a new tax law in April to be effective on January 1, 2011 on incomes earned in 2010
- ✓ Competitiveness & Business environment measures (business start-ups, adoption of the services directive etc.)
- ✓ Liberalization of the road freight transport already voted by the Parliament
- ✓ New investment law
- ✓ Outsourcing the auditing of hospitals (currently 10 largest audited by PWC)
- ✓ Public sector enterprises: Balance sheets of 10 largest loss-makers on the internet, restructurings, limits on State guarantees of their borrowing

Scheduled to be completed by the end of 2010:

- ✓ Restructuring of railroads, turning them profitable in 2011
- ✓ The actual implementation of the local administration reform
- ✓ The actual implementation of the Services Directive
- ✓ The actual implementation of the business start-up law (general electronic commercial registry, one stop shops for start ups etc)
- ✓ The opening up of the closed professions
- ✓ Measures to facilitate FDI and investment in strategic sectors of the Greek economy
- ✓ Strengthening the independence of the Hellenic Competition Committee
- ✓ Electronic registering of drug prescriptions, further reduction in drug costs, patient-doctor benchmarking to avoid unnecessary prescriptions

IV.1 Privatizations postponed for 2011 and beyond

- ✓ **Slow start** perhaps due to the bad market environment. In December we expect details on a privatization plan with dates and revenue guidelines
- ✓ EU/ECB/IMF program assumes **€1bn per year** for the 2011-2015 period
- ✓ Yet privatizations could easily bring more than **€10 bn** over a 4-year period. Main cash cows are: Ports (privatization or concession contracts), gambling (new casino licenses, internet gambling, 34% stake on OPAP), energy sector (natural gas companies) and real estate
- ✓ Presently, State claims it wants to **retain at least 51% in "strategic" firms** (e.g. PPC). Concession contacts to be used for real estate holdings, ports and airports
- ✓ The first planned privatizations are mainly soft and include full privatization of casino's, stock market listing through SPVs for 10 ports, concession contracts for the highway system, selling of EYDAP's 10%, EYATH's 23%, Hellenic Post's 39%, Railways: sell of TRAINOSE's 49% (passengers and freight services), real estate development through SPVs, concession contracts for the Athens and Thessalonica freight terminals
- ✓ State (Ministry of Finance) owns real estate assets worth over €270 bn. Most of it could be deployed through long-term leases
- ✓ The government will enable the effective liberalization of the wholesale electricity market.

IV.2 Unusually benevolent political environment

Subdued Social Unrest:

- ✓ When PM addressed the nation after the February Davos meetings and for the first time revealed a wage freeze and indirect tax increases, 2/3 of the population applauded.
- ✓ Demonstrations are 1/20 the size of earlier ones
- ✓ Citizens seem aware of the fiscal problem and of the years of public waste and ballooning debt and are ready for sacrifices, demanding equal distribution of burdens

Strong government at the right moment in history:

- ✓ New government elected in October 2009 for four years ⇨ Government can pursue restrictive fiscal and tough structural policies without compromising its reelection objective, as long as economy recovers in 2012
- ✓ Strong parliamentary majority and strong leadership by the PM allows government to pursue its plans undeterred
- ✓ In contrast to past experience and thanks to the rising bond spreads, it only took five months for the newly elected government to gain control of the unraveling crisis ⇨ Now it is ahead of the MOU requirements

IV.3 Budget execution satisfactory thus far

Eurobank EFG

During the first 9 months of 2010:

- ✓ Deficit **down 31.3%** yoy, overshot the 9-month target of -28% *vs.* annual target of **-36.9%** yoy
- ✓ No discrepancy with numbers provided by BoG on a cash basis
- ✓ Primary expenses **down 12%** yoy *vs.* annual target of **– 9.2%** yoy
- ✓ **Yet**, net revenues **up by only 3.7%** yoy *vs.* annual target of **+8.7%** yoy

Central Government Budget: January-September 2010

Ordinary Budget	January-September 2010 (€bn)	January-September 2010 (%YoY)	Annual target (%YoY)
1. Net Revenues (a-b)	36.52	3.7	8.7
a. Gross revenue	39.78	2.8	8.2
b. Tax returns	3.26	-5.9	3.0
2. Expenditure (a+b+c)	48.66	-7.1	-7.8
a. Primary expenses	36.77	-11.6	-9.2
b. Transfer to hospitals for the settlement of part of past debt	0.24		
c. Interest costs	11.65	8.0	7.2
Public Investment Budget (PIB)			
3. Revenue	1.35	-3.3	47.7
4. Expenditure	5.44	-30.3	-6.1
5. Budget deficit (1-2+3-4)	16.23	-31.1	-36.9

Source: Ministry of Economics

IV.3 Government begins to address cracks in an outdated revenue collection mechanism

Concerns about **VAT** receipts

- ✓ Note that VAT receipts were up by **only 3.1%** yoy in **January-August** 2010 *vs.* annual target of **+14.6%** yoy *based on the EU/ECB/IMF adjustment programme*
  - ❖ VAT still higher than a year earlier and improving since February. VAT in August up 10%.
  - ❖ Second leg of VAT increase effective on July 1st
  - ❖ Taxes on property & enterprises to be collected
- ✓ According to press releases **VAT** receipts increased by **16.9%** yoy in September 2010, which is due to increased activation of the tax authorities and the household collection of transaction receipts

Urgent need to improve tax collection mechanism. **5 task forces** are set up:

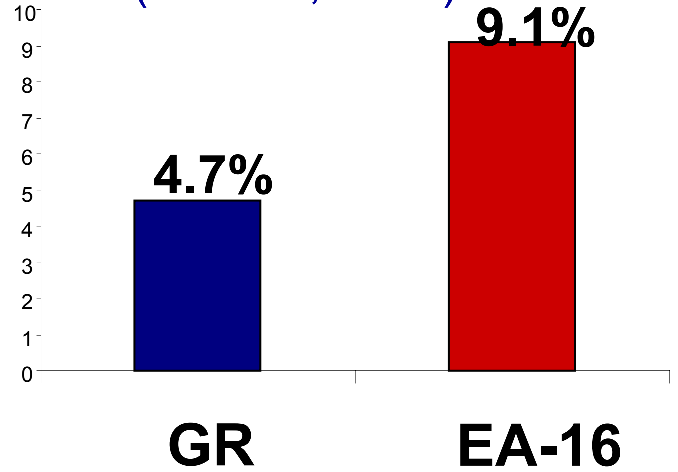
1) Collection of tax arrears
2) Reorganize large tax payers unit
3) Strengthen audits of high income and high net-worth individuals
4) Start prosecuting worst offenders
5) Strengthen filing and payment controls

IV.3 Additional measures in 2011 are possible, yet program contains cushions

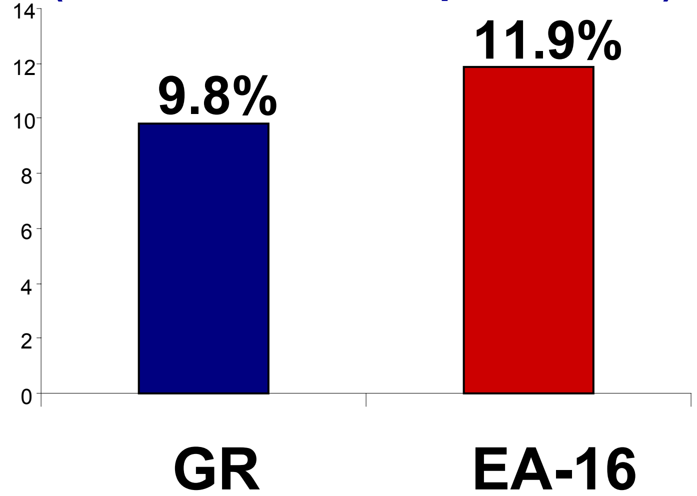
Existing cushions help absorb negative shocks and avoid a derailment of the program

- ✓ 2010 fiscal measures more than needed reduction to attain deficit target of €18.6bn. Expected upward revision in 2009 deficit does not alter the 2010 target
- ✓ For next year, opportunity to grab **tax evasion** through imputed income on self-employed, who are **36%** of labor force but contribute only **7.5%** of total tax revenues.
- ✓ Receipt revolution forces revelation of company revenues and raises VAT
- ✓ Public waste is huge, e.g. annual drug expenses of €9.2 bn is **3** times bigger per capita than in Spain – can be cut without affecting the economy

Taxes on Household Income
(% GDP, 2008)



VAT receipts
(% Private Consumption, 2008)



Source: Eurostat

V.

V. Greece faces a dual growth problem

1) Boost aggregate demand to end the recession in 2011

- ✓ Mobilize EU funds
- ✓ Stabilize consumer and investor sentiment
- ✓ Mobilize the private sector in common projects, PPPs

2) Follow a clear long-term strategy to boost potential GDP

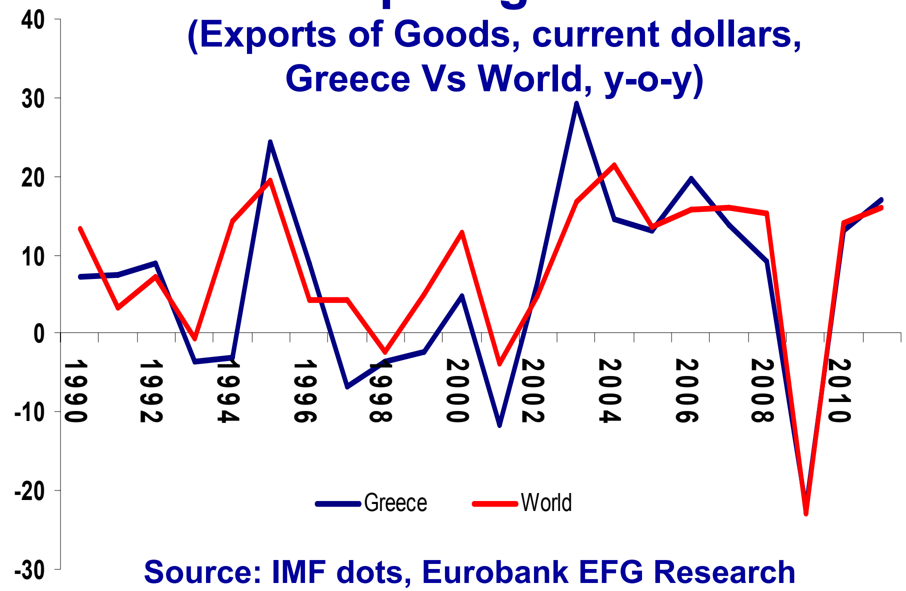
- ✓ Greece has a strong private sector but lacks an organized public sector
- ✓ Continue on structural reforms and product & service markets
- ✓ Boost capital intensity, education, quality of institutions
- ✓ Minimize corruption and bureaucracy

V.1 Escaping the recession in 2012: Investment plus the external sector

- ✓ Drastic decline in consumption and investment thus far. Consumption expected to continue falling in 2011
- ✓ Recovery hinges on economic climate stabilizing and investment turning positive later in 2011
- ✓ Imports had a positive impact in 2009 as they fell by 14%.
- ✓ Real imports further ↓ 20% cumulatively in 2010 -11, contributing 5.7ppts to GDP growth, i.e. 2.8ppts per annum
- ✓ Real Exports ↑ 12% cumulatively in 2010-11 from:
  - ❖ 7% due to correlation with global trade [elasticity of trade w.r.t. regional growth: 2]
  - ❖ Productivity ↑ (2%, lower than trend), plus real wage cuts in the private sector (3%) ⇨ ULCs ↓ ~5%
  - ❖ Since an 1% increase in exports increases medium term GDP by 0.23 ppts, the contribution to GDP from exports can be as high as 2.8ppts, i.e. 1.4 ppts per annum
  - ❖ If euro depreciation relative to 2009 remains, extra boost in competitiveness (57% of Greek exports go outside the EMU)

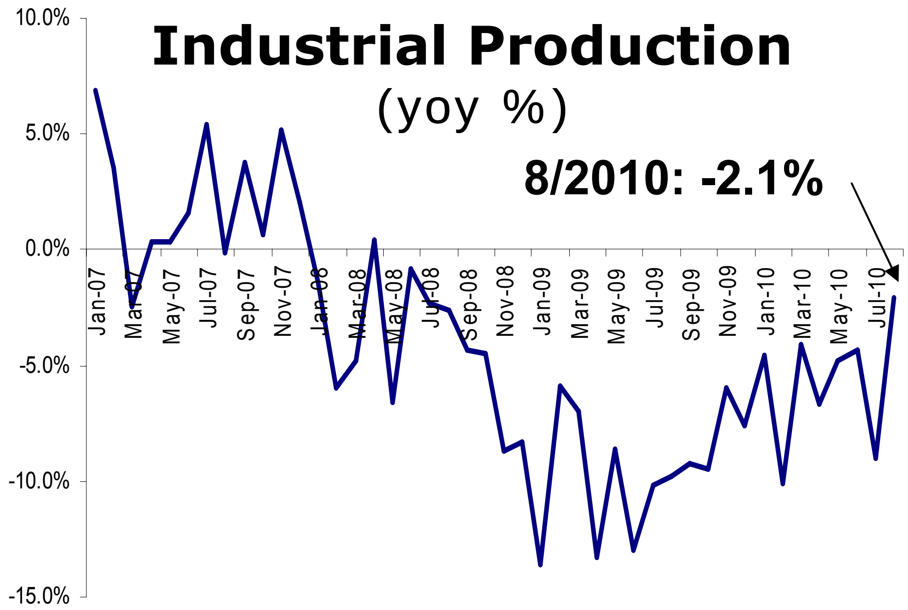
Export growth

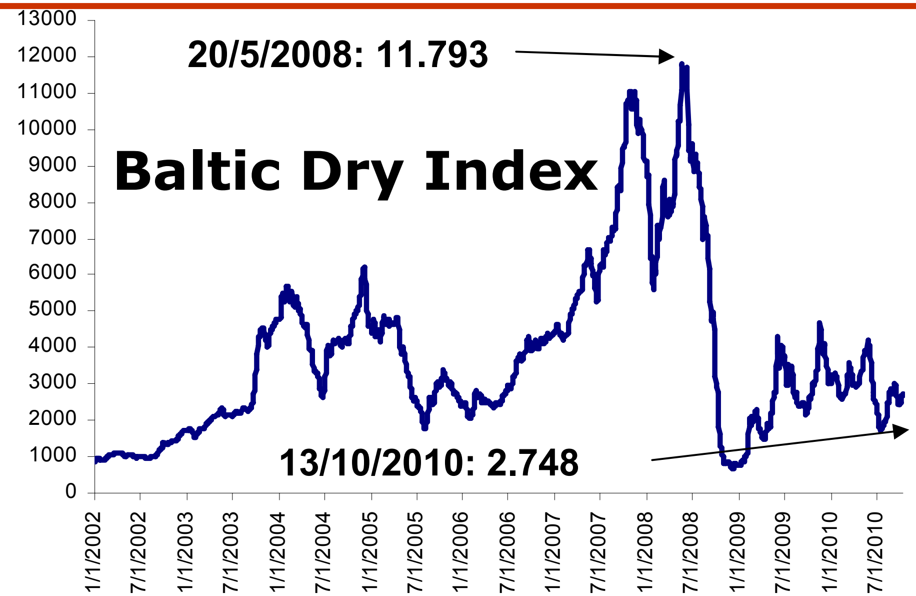
(Exports of Goods, current dollars, Greece Vs World, y-o-y)

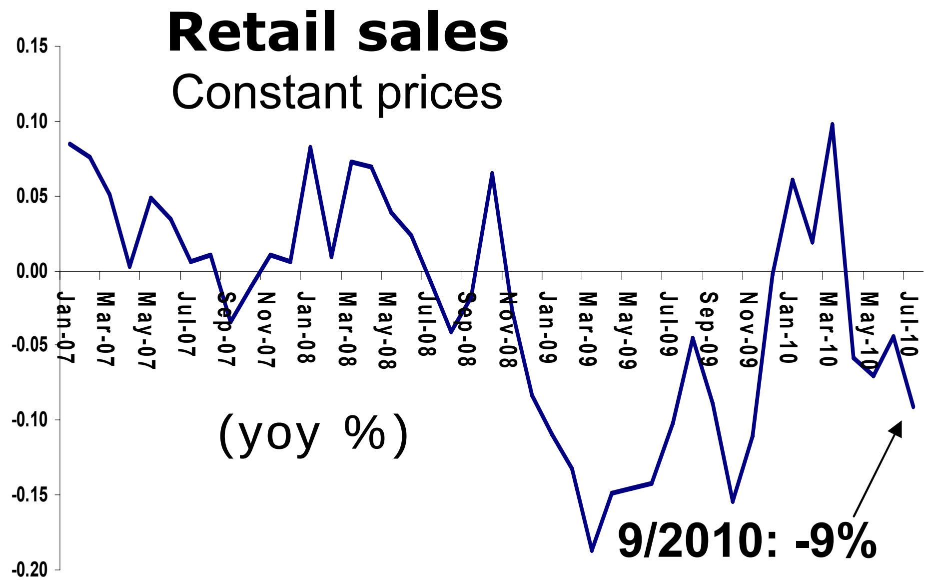


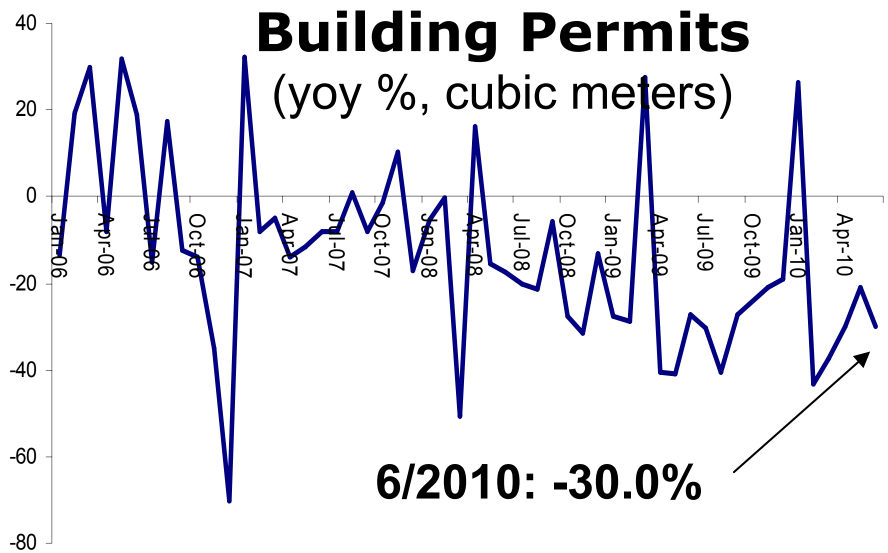
Source: IMF dots, Eurobank EFG Research

V.1 Current Greek Recession: Basic Indicators



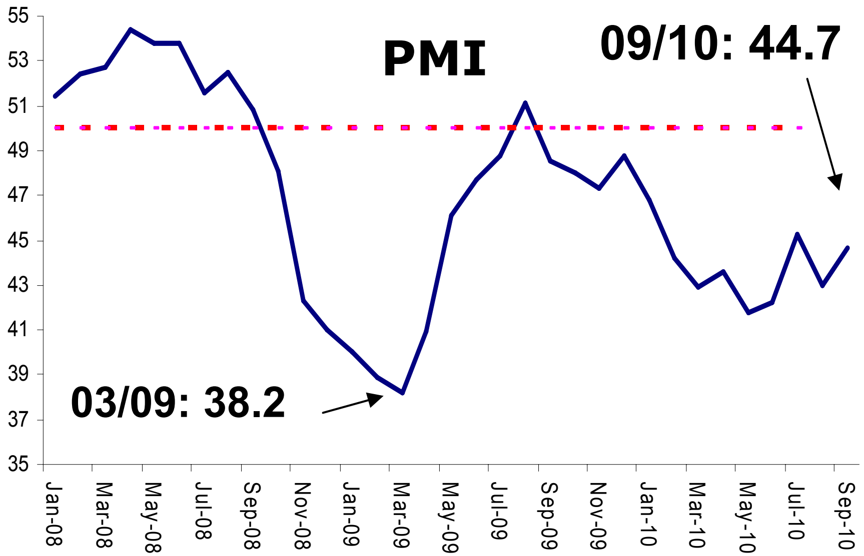


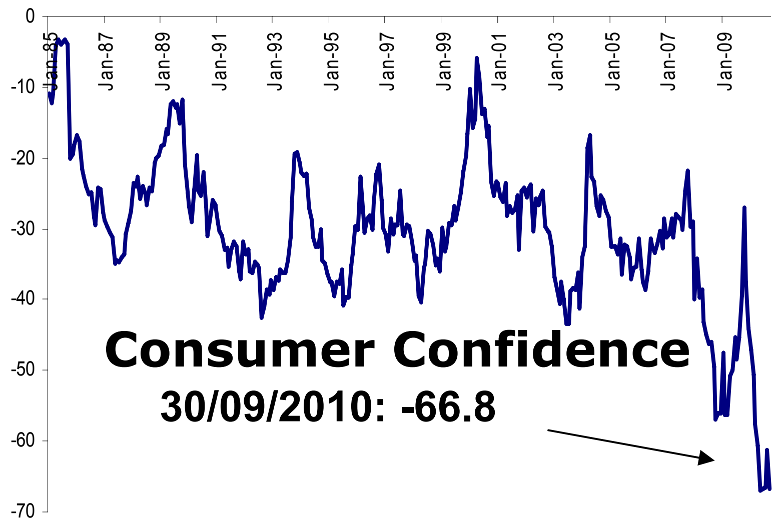


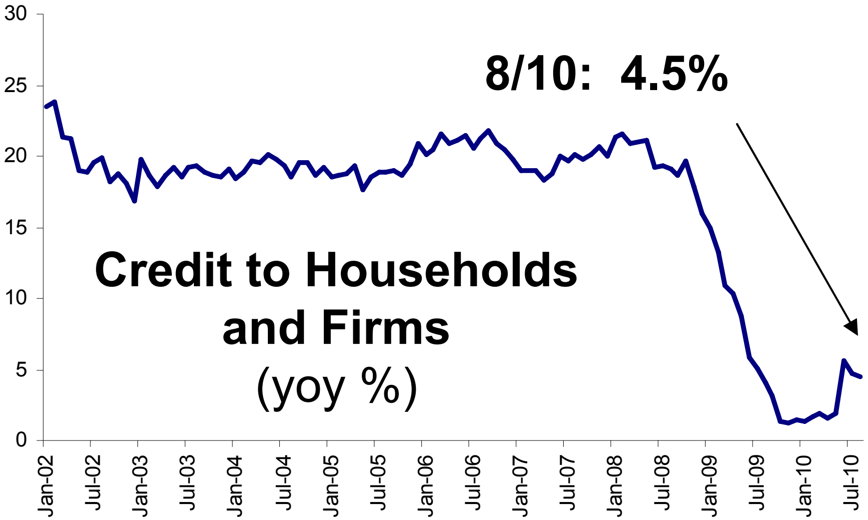


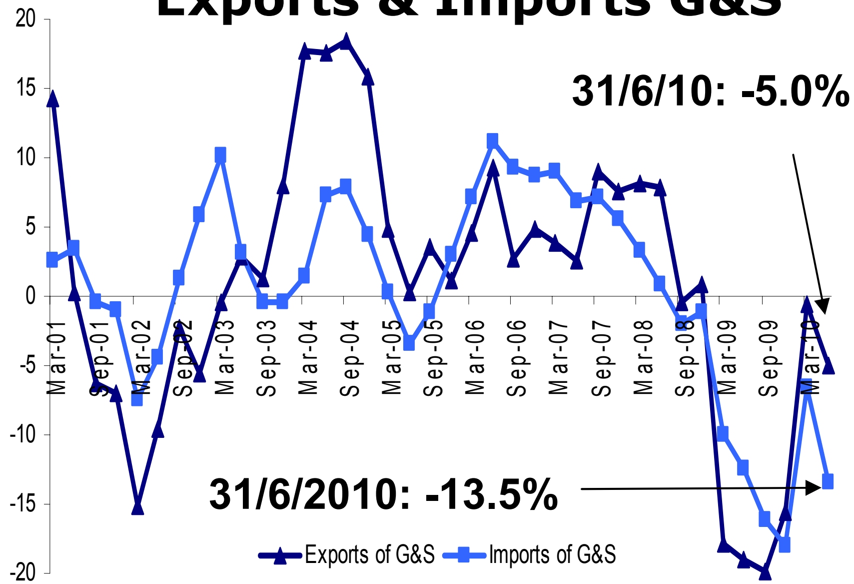
G

V.1 Current Greek Recession: Basic Indicators



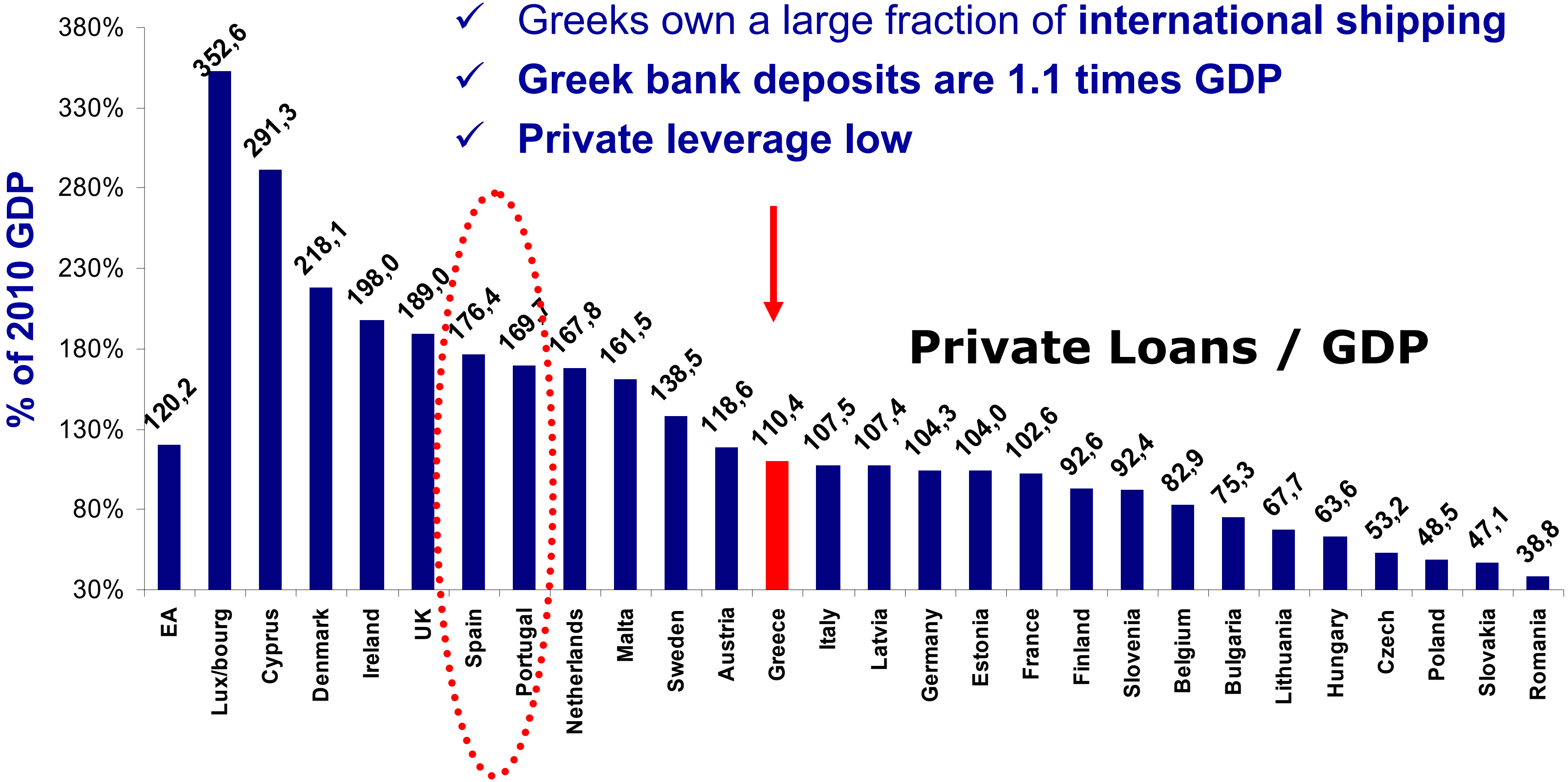






V.2 Long-term strengths: Greek private sector is rich and under-levered

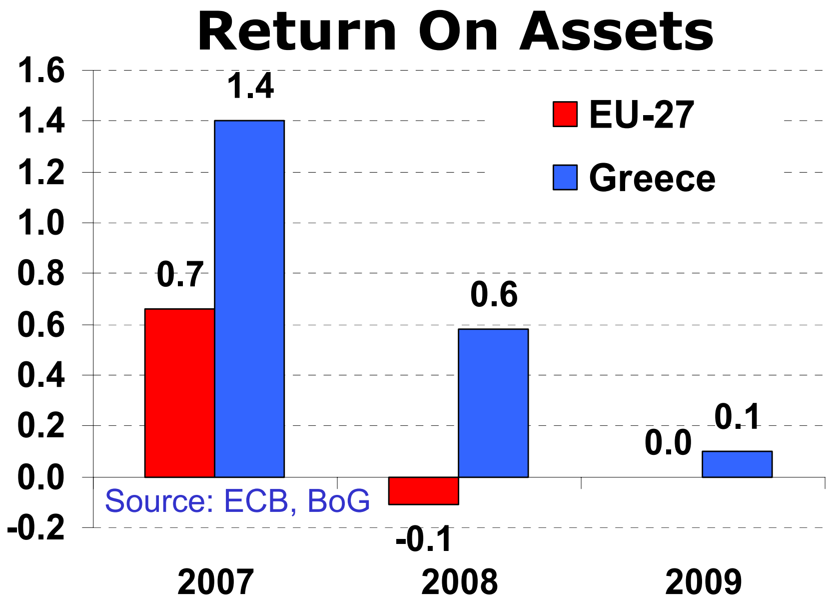
- ✓ Greeks own a large fraction of **international shipping**
- ✓ **Greek bank deposits are 1.1 times GDP**
- ✓ **Private leverage low**



*Note: **ECB data**. Loans to non MFIs excl. Gen. Government from MFIs excl. Eurosystem, **August 2010**, **% of 2010 GDP** (EU forecasts). The data **include securitizations** and are trustworthy for cross sectional comparisons, but not for time series analyses as individual series contain unexplained abrupt breaks due to either full or partial inclusion of securitizations over time.*

V.2 Greek banks: An example of private sector strength

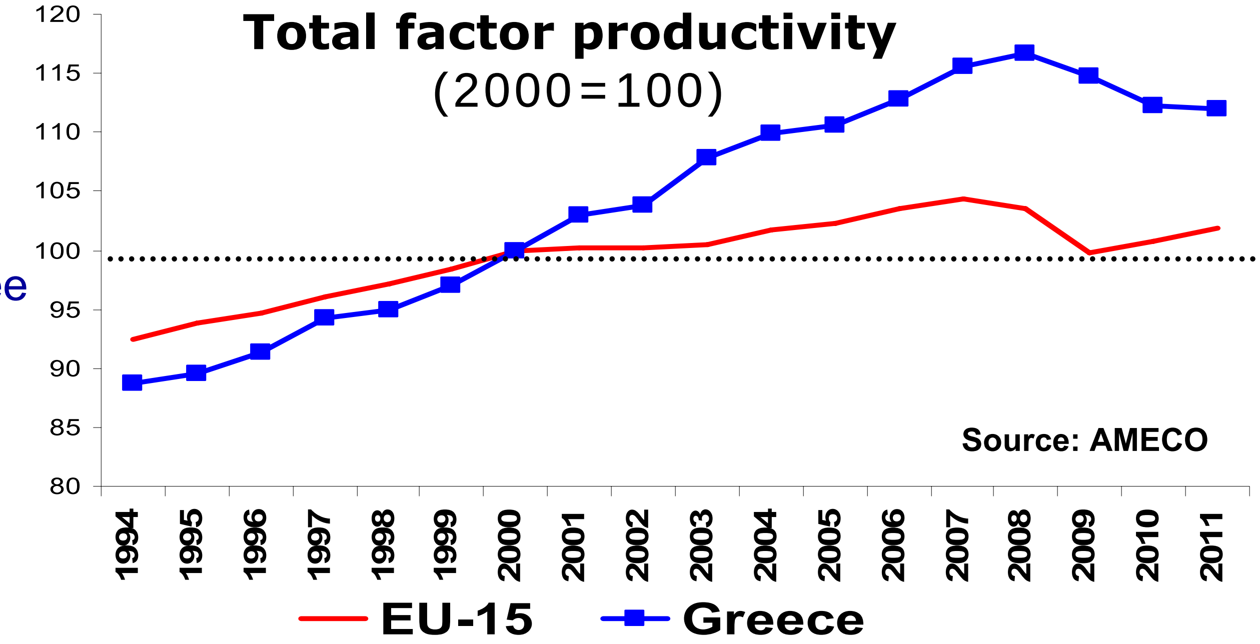
- ✓ Greek banks did not cause the recession in the country, like it occurred in the US or in Western Europe
- ✓ Greek banks strongly capitalized (CAD ratio at 11.7%, Tier I at 11.0%); Easily passed recent stress tests
- ✓ Greek banks borrowed in the repo market to finance their expansion abroad; Domestic banking system is deposit rich (L/D 118% for banking groups); ECB lending of €100bn will decline once interbank market opens up



- ✓ Contingent liquidity (now over 20% of deposits) will be further boosted (covered bonds, government's liquidity scheme, limited refinancing needs)
- ✓ Asset quality worries seem overblown (NPLs at 8.2% in 2010-Q1, experience of two crisis years, NE countries); Greek private sector is not over-leveraged; Pre-provision margins 40% wider than EU; absence of toxic assets and no real estate bubble
- ✓ Substantial CEE/SEE exposure offsets Greek strain as profits to track regional economic recovery; Region represents 1/4 of total lending for the 4 large Greek banks and corresponds to c.40% of total revenues.

V.2 Why growth can resume in Greece: Long-term strategy required

- ✓ Past growth in Greece was mainly demand-driven
- ✓ Yet, it also featured improvements in all three factors of production: Capital (physical & human), labor, and technology which includes organizational features:

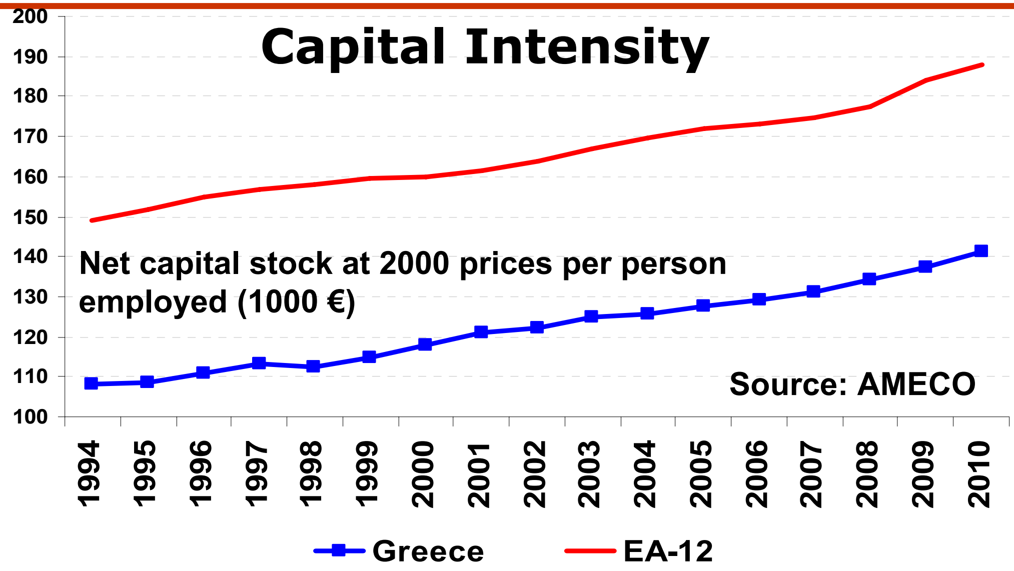


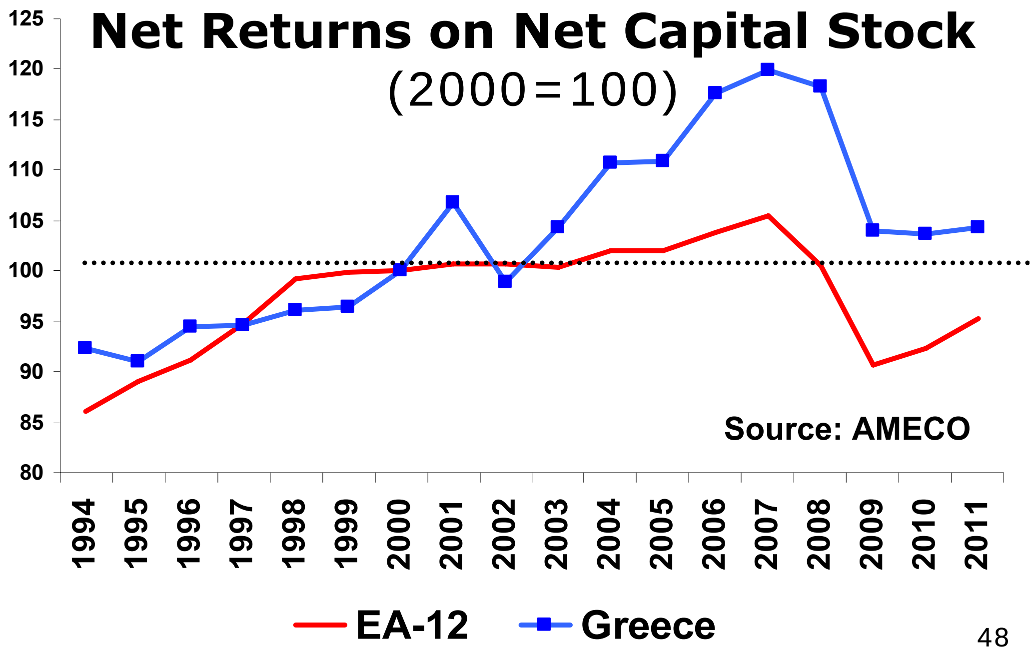
- ❖ Investment in equipment real growth averaged 11.8% during 1996-2008, against a 4.5% EA-12 average
- ❖ Injection of cheap (unskilled) labor from illegal immigration (boosted the grey economy mostly)
- ❖ Education rates went up (Ratio of students to teachers 1998: 12.3, 2007: 8.6)
- ❖ Quality of institutions benefited from Euro Area participation: Monetary and exchange rate stability, EU law embodied in Greek law, modernization and internationalization of some Greek businesses, some markets opened up to competition

V.2 Positive news: Capital intensity is low, good return on capital, labor can grow

High productivity growth can continue in the future, once the recession is over, as:

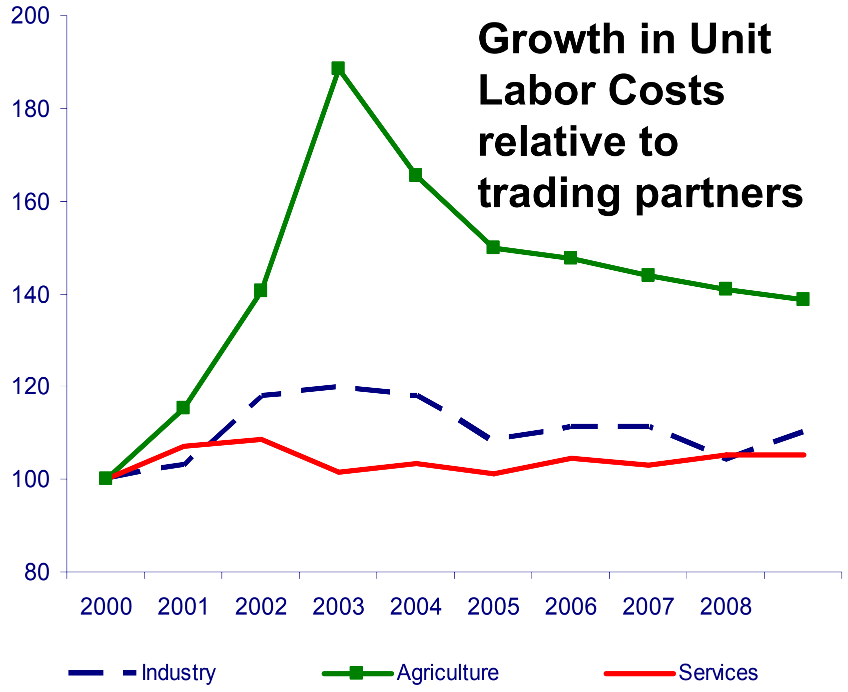
- ✓ Capital intensity lower than EU average; Greece is like Switzerland with islands: infrastructure needed
- ✓ Return on capital is growing quickly suggesting incentives to invest
- ✓ Investment can pick up the moment market conditions normalize; Funding is currently available from EU funds
- ✓ Labor will also grow
  - ❖ in quantity (immigration, increase in the participation rate to the labor force)
  - ❖ in quality (the Greek labor force is already highly educated, measures will increase matching of training with market needs)





V.2 Growth benefits expected from structural reforms

- ✓ Organization of production and the economic and institutional environment matter:
  - ❖ Zonzilos et al (BoG, 2009): More than 50% of GDP growth in Greece is due to TFP growth
  - ❖ Sideris (BoG, 2009): If Greece had the average EU-15 institutional quality, its growth rate would have been 22.7% ↑
  - ❖ EU-Commission (2009): Structural reforms ⇨ output growth ↑ in the long-run
  - ❖ IOBE (2010): 17% GDP ↑ from structural reforms



- ✓ Crowding-in of the shrinking public sector
- ✓ Competitiveness losses were not huge and can now be recovered thanks to the MOU reduction in real wages
- ✓ Capturing the underground economy (25-30% of GDP) can improve efficiency, not only statistics

VI. Summary: The crisis as an opportunity for change

- ✓ The international crisis is an opportunity for a new global financial system
  - ❖ Lower future world growth, with developing world leading the way and with stricter financial regulation
- ✓ The EMU crisis is an opportunity for fixing its internal fiscal mechanism
  - ❖ EMU rescue schemes plus proposals to tackle debts and macroeconomic imbalances after markets attacked its weaker members
- ✓ Greece is in a transitional stage: It either
  - ❖ Does nothing and gets trapped in a prolonged period of stagnation and huge unemployment, with contracting living standards
  - ❖ or uses the 3-year EU/ECB/IMF lending window efficiently to fix itself up, yet carrying the burden of past sins in the form of both higher unemployment and higher debt
- ✓ Indeed, the Greek crisis is an opportunity to fix its long neglected general public sector and pursue the structural reforms that were avoided for decades.
  - ❖ Despite huge risks, Greek society is ready and government is in line with MOU with EU/IMF/ECB
  - ❖ Pension reform a big plus and can be supplemented; Labor reforms induce flexibility
  - ❖ Many reforms still pending: Health sector, Public sector enterprises, Local governments, Educational reform
  - ❖ State has to capture the underground economy, simplify the tax system and reduce marginal tax rates
- ✓ The stricter the EU supervision, the more likely it is for Greece to succeed

THANK YOU FOR YOUR ATTENTION !

ghardouvelis@eurobank.gr
www.hardouvelis.gr

+30-210-333-7365