COMMENCEMENT TIME FOR THE GREEK ECONOMY

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CONTENTS

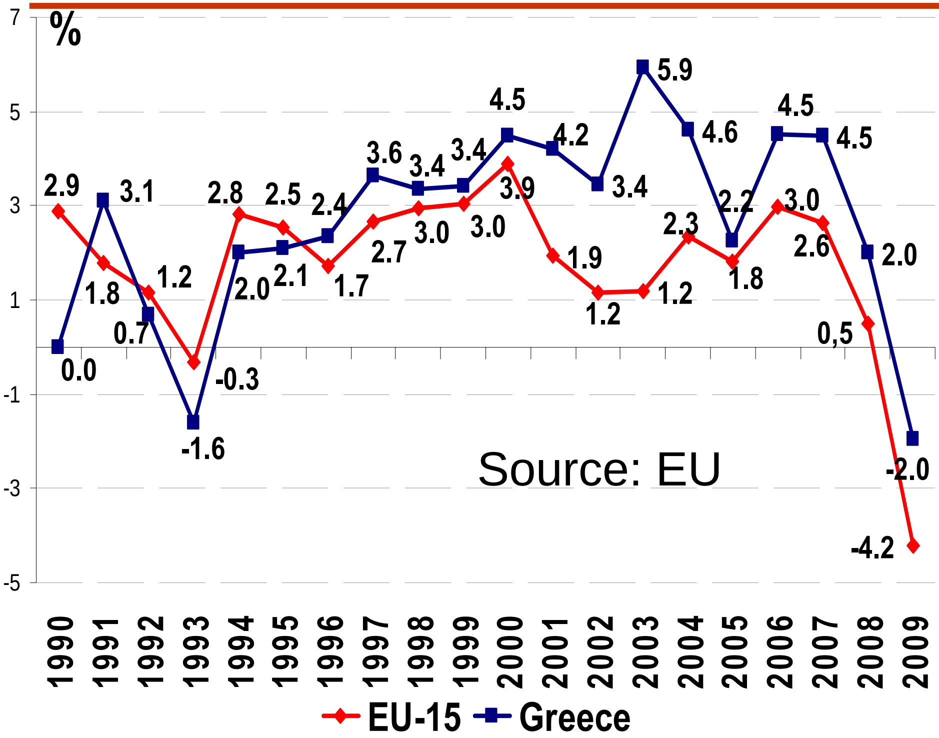
I. Greece: The past & the future in concrete numbers

II. Why does the market discount default with high probability?

III. Can Greece get back to high & sustainable equilibrium growth rates?

IV. Summary: Commencement time for Greece

I. Real Growth Rates in Greece were higher than in EU-15 from 1996 through 2009

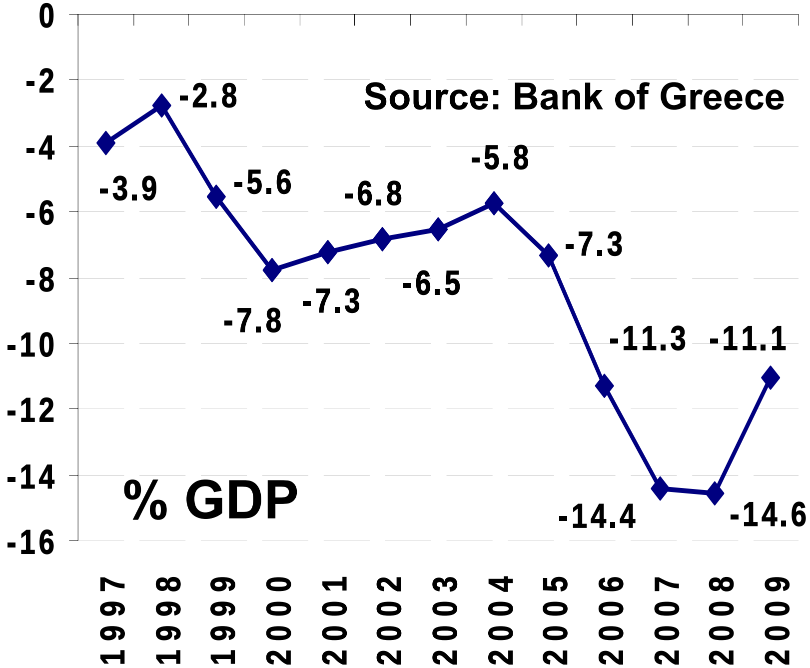


Relative Living Standards
EE-15=100 in PPS
1991 76.5
2009 87.4

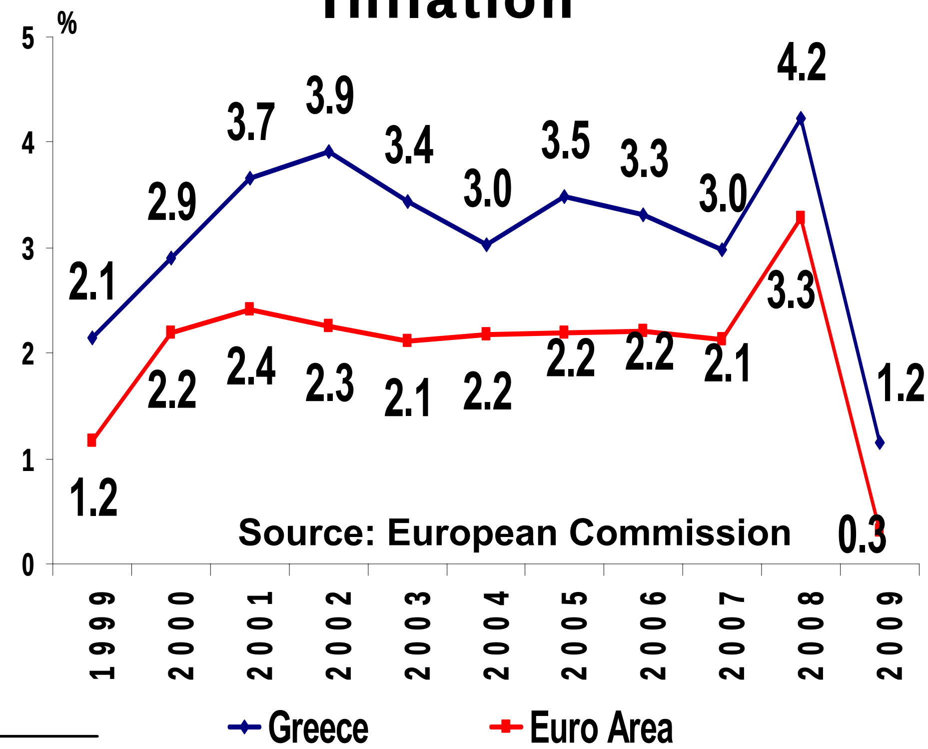
Greece: From boom to bust
How come?
Answer: Not an equilibrium growth

I. Lack of competitiveness, which showed up in current account and in inflation differential

Current Account Balance

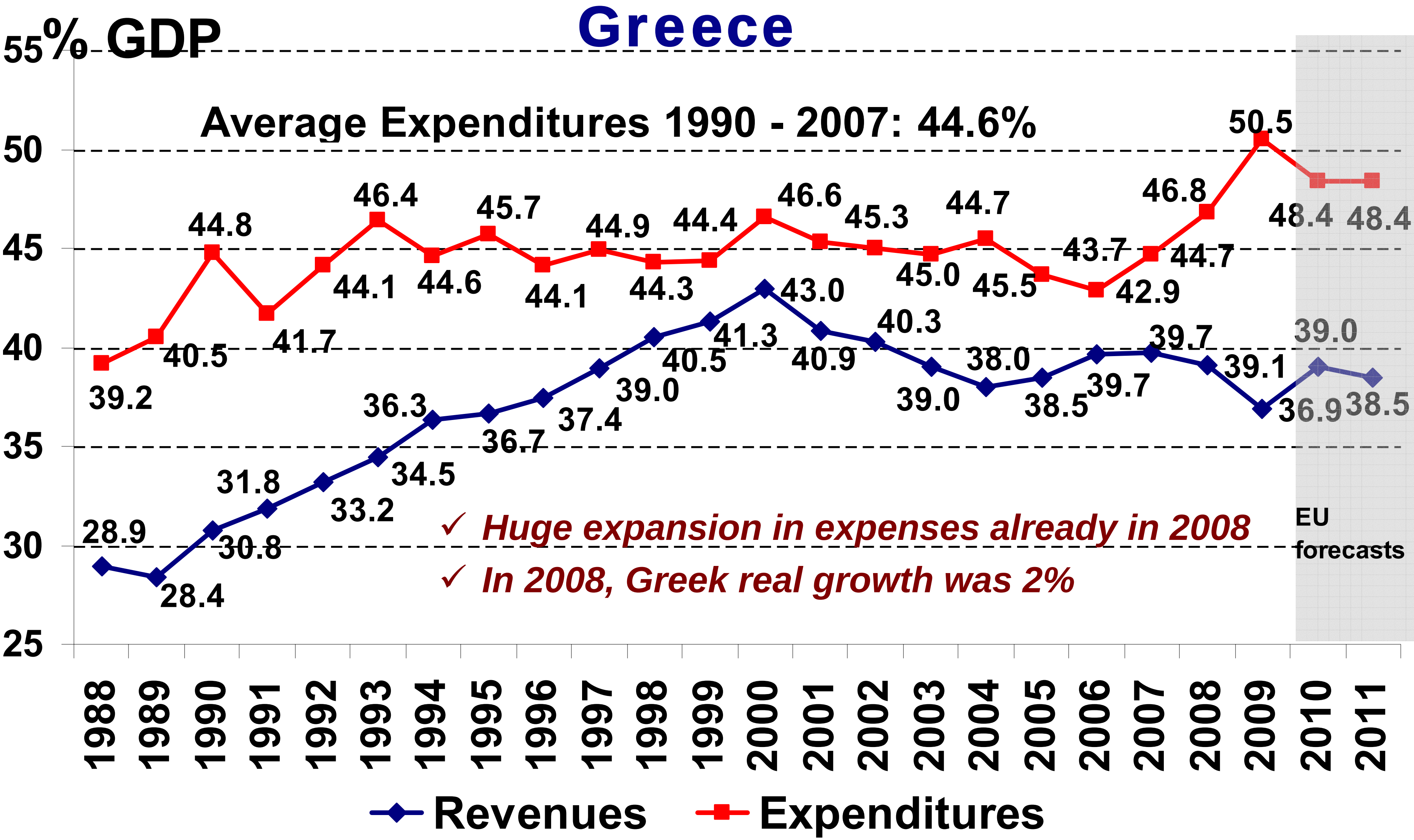


Inflation



Current Account (€ mil)		**-26,630.9**
Goods	**2009**	**-30,760.3**
Services		**12,640.2**
Income		**-9,803.5**
Current Transfers		**1,292.6**

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



Source: European Commission, Spring 2010 forecasts

I. 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

✓ In the optimistic scenario, debt/GDP will be in 2020 where Spain is today

I. The Revised EU/IMF/ECB program: Detailed forecasts

	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

II. Material risks exist but can be contained

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 of wage earners in H1 2011 with the rise in unemployment and decline in incomes and if government fails to address the rampant tax evasion

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*

e) Collapse of the financial system: Is it probable?

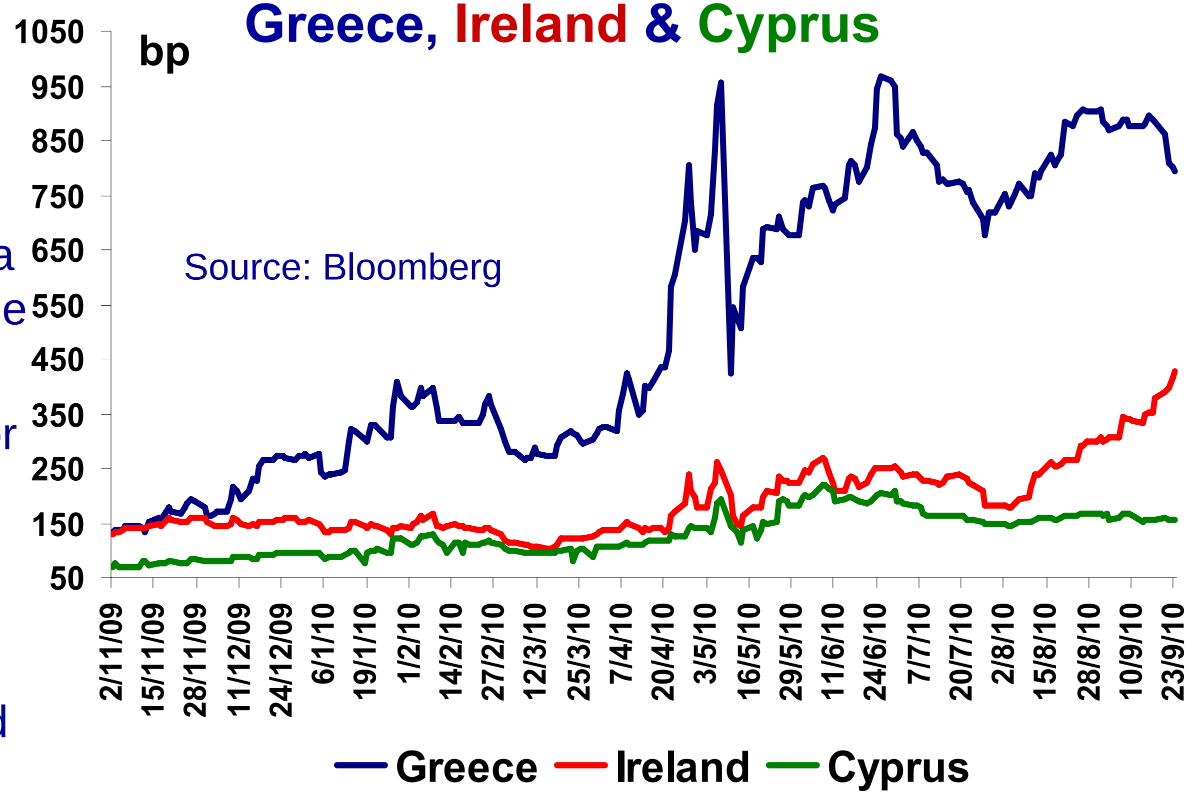
   No*, as long as ECB provides liquidity and no population panic takes place.*

III. The market is extremely negative and oblivious to the change in risk sources

A nervous market

- ✓ On September 23rd, 5-yr CDS was **793.7 bps** implying
  - ❖ a cumulative risk-neutral **probability** of **31.3%** for a **total capital loss** any time during the 5-year period,
  - ❖ or a **99.8% probability** for a **capital loss of 10%**
- ✓ Even more worrisome is the following: On September 21st the 2-year Greek Government bond yield was 9.1%, a spread of 842 bps over Bunds!!

5-year CDS rates
Greece, Ireland & Cyprus



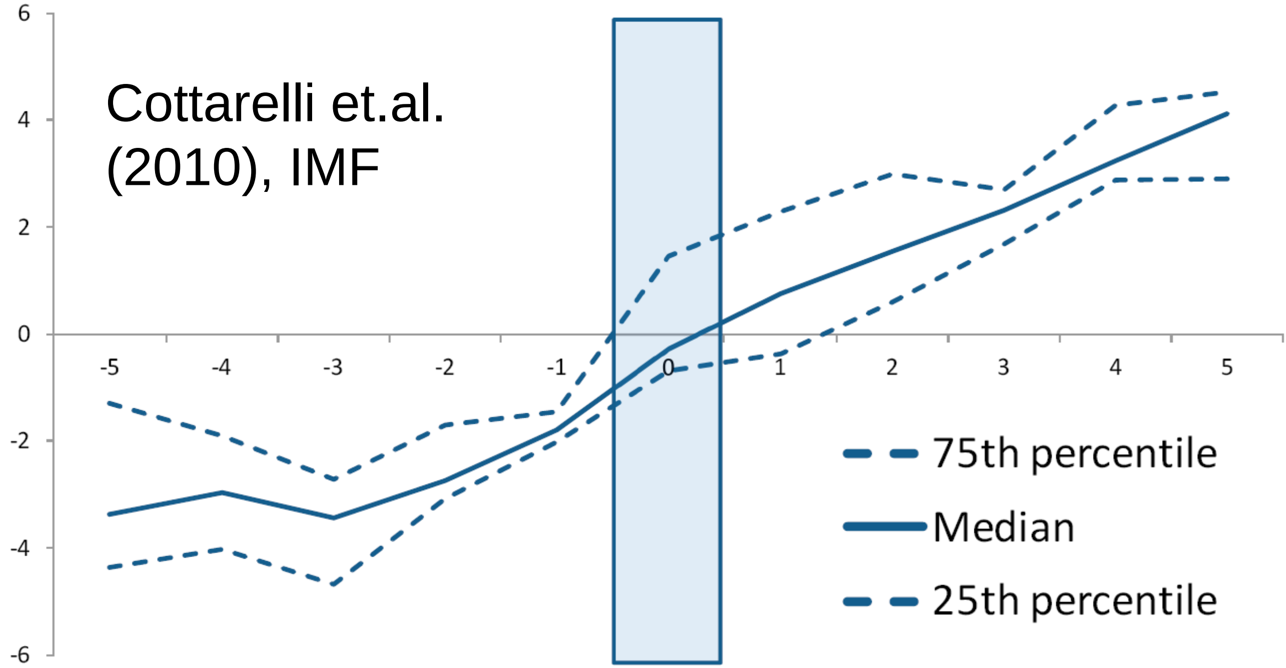
- ✓ Yet Greece does not need to go the market to get financed for 2.5 years! Illiquidity? Overreaction? The market seems to believe that:
  - ❖ Either the Greeks are incapable of absorbing the €110 bn rescue funds
  - ❖ Or the EMU members will not be able to deliver the funds

II. Once primary balance is attained it makes no sense to default

Markets appear oblivious to this regularity

- ✓ Cottarelli et.al: Countries are forced to default, they do not choose it
- ✓ Once advanced countries bring primary deficit to zero, they continue fiscal tightening
- ✓ After sovereign bond spreads rose above 1000, no credit event in 80% of cases
- ✓ In the case of Greece, default would not solve its fiscal problem

Primary Fiscal Balance for High-Debt Advanced Economies Where a Primary Deficit Was Brought to Zero



Notes: Eight countries with government debt of at least 60 percent of GDP reduced their primary deficits to attain primary balance during the sample period since 1980: Austria (1997), Belgium (1984), Greece (1994), Ireland (1984), Italy (1991), Japan (1981), Portugal (1986), Sweden (1996). Numbers in parentheses indicate the date when the primary balance is attained. On the horizontal axis, zero indicates the year when primary balance is reached.

II. Yet, 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, <u>this event cannot happen because</u>:

1. A **Greek default would be an EMU decision**, not a Greek decision. 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. I**nterest costs** will increase for the Greek **private sector** as well, reducing growth

III. Can Greece resume its past high growth rates?

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

2) Unusually benevolent political environment

3) An end of the recession by sometime in H2 2011 is within reach, yet more drastic action is needed

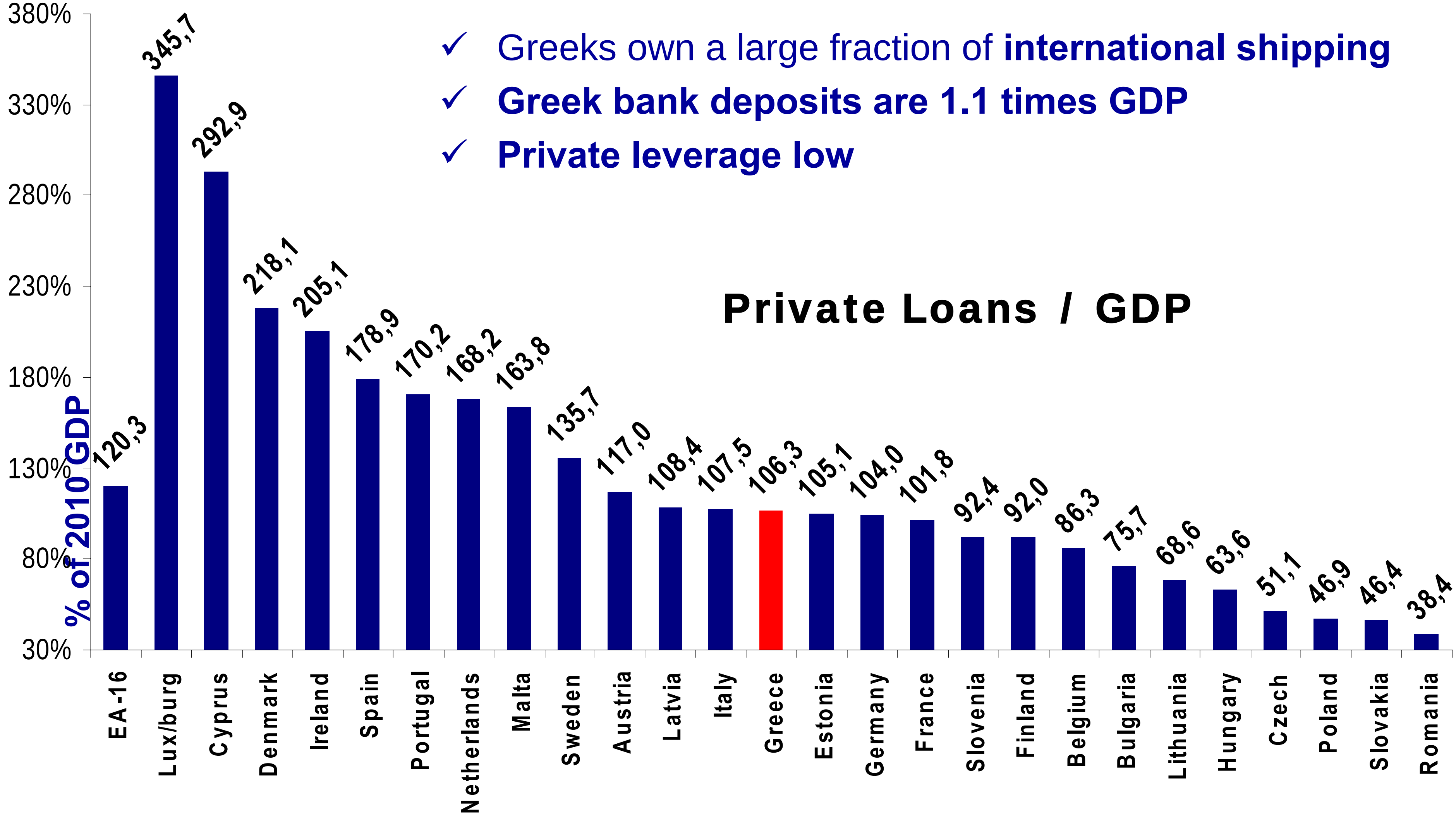
4) In the intermediate-run, growth can come back - making the level of debt less onerous

   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

III. Greek private sector is rich and under-levered

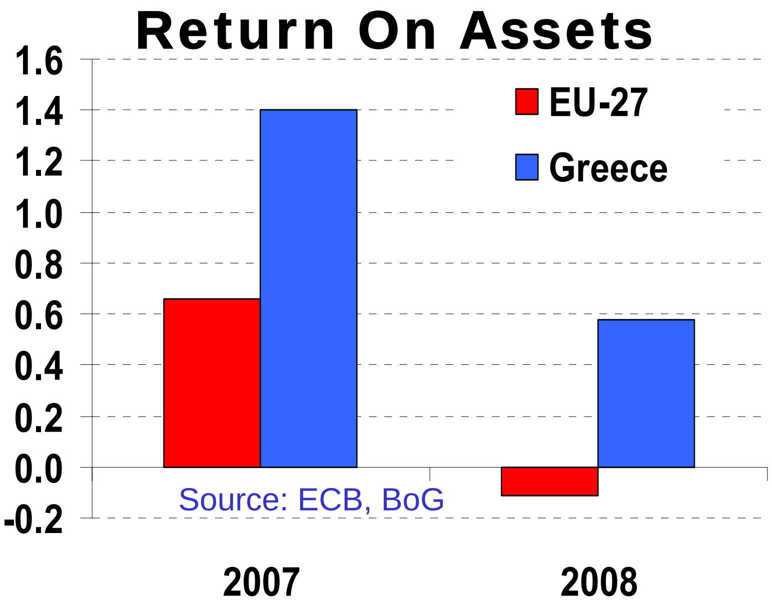
- ✓ Greeks own a large fraction of **international shipping**
- ✓ **Greek bank deposits are 1.1 times GDP**
- ✓ **Private leverage low**



Loans to non MFIs excl. Gen. Government from MFIs excl. Eurosystem, June 2010, % of 2010 GDP (EU forecasts)

III. A solid banking sector: Greek banks prudent and strongly capitalized

- ✓ Greek banks did not cause the recession in the country like it occurred in the US or in Western Europe
- ✓ The banking system is **deposit rich** (L/D 118% for banking groups); ECB offers strong support, while contingent liquidity (now over 20% of deposits) will be further boosted (covered bonds, government's liquidity scheme, limited refinancing needs)
- ✓ Greek banks strongly capitalized (CAD ratio at 11.7%, Tier I at 11.0%)

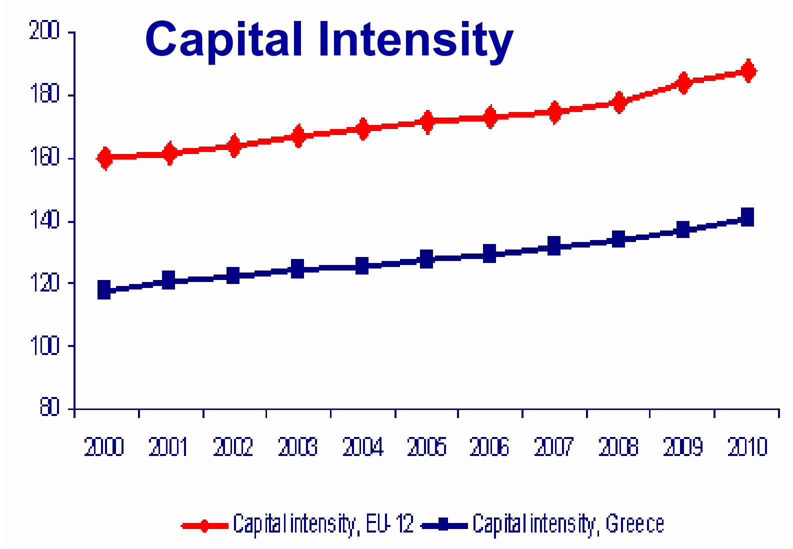


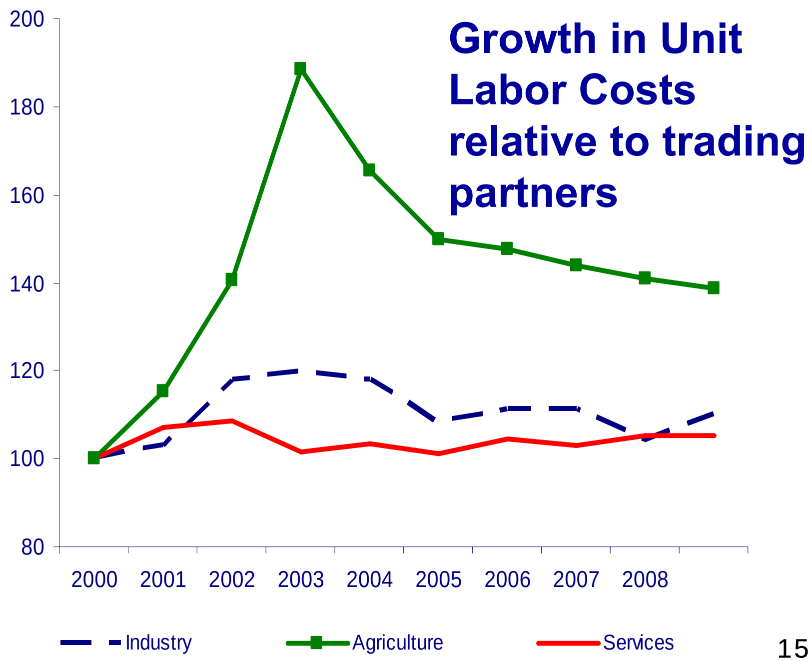
- ✓ Asset quality worries seem overblown (NPLs at 8.2% in 2010-Q1, experience of two crisis years, NE countries); Greek private sector is not over-leveraged; Pre-provision margins 40% wider than EU; absence of toxic assets and no real estate bubble
- ✓ Substantial CEE/SEE exposure offsets Greek strain; profits to track economic recovery in the region
- ✓ Greek banks have annual net revenue buffers in excess of € 3.5bn, including: 2010 profitability run-rate, further re-pricing in Greek loan segments, streamlining of operations and cost containment as well as synergies from potential sector consolidation

III. Strong growth can resume in the future

High productivity growth can continue in the future, once the recession is over, for a number of reasons:

- ✓ Capital intensity lower than EU average, infrastructure projects needed, funding is available
- ✓ Real wages are declining by over 10%, improving competitiveness, which did not deteriorate a lot in the serves sector
- ✓ Public sector crowding in, Structural reforms & building of social institutions will result in a more export-oriented and competitive economy, with gains estimated by some researchers at around 20% of GDP
- ✓ Capturing the underground economy, which is close to 25-30% of GDP, will improve all debt magnitudes. EUROSTAT revisions expected soon.





IV. Summary: Commencement time for Greece

- ✓ Despite significant risks, the **EU/IMF/ECB Program has a high chance to succeed** as fiscal consolidation proceeds as planned, drastic structural reforms are ahead of the EU/IMF/ECB conditionality dates, the public is not responding negatively to belt-tightening and the governing center-left political party has strong parliamentary majority and can stay in office for additional 3 full years.
- ✓ **Markets presently discount a significant haircut** in Greek government bonds. **Yet**, once primary surpluses become feasible in 2012-13, debt restructuring would not be optimal as the **stakeholders are Greek or other EMU members**.
- ✓ The recession is expected to be over by 2011 H2, once investment spending stabilizes and the net export sector improves its share in domestic value added.
- ✓ Long-term growth can gradually recover:
  - From expected further productivity gains coming through faster capital accumulation, lower real wages, public sector crowding in, product market reforms plus a gradual capturing of the underground economy
  - The strength of the under-levered and wealthy private sector and the strength of the banking sector
- ✓ The current account imbalance and competitiveness can improve thanks to on going product and labor market reforms and the re-organization of the public sector
- ✓ This is **commencement time** for the Greek economy, to be built on consensus

THANK YOU FOR YOUR ATTENTION !

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