Eurobank EFG

THE EUROPEAN SOVEREIGN DEBT DEBATE AND GREECE

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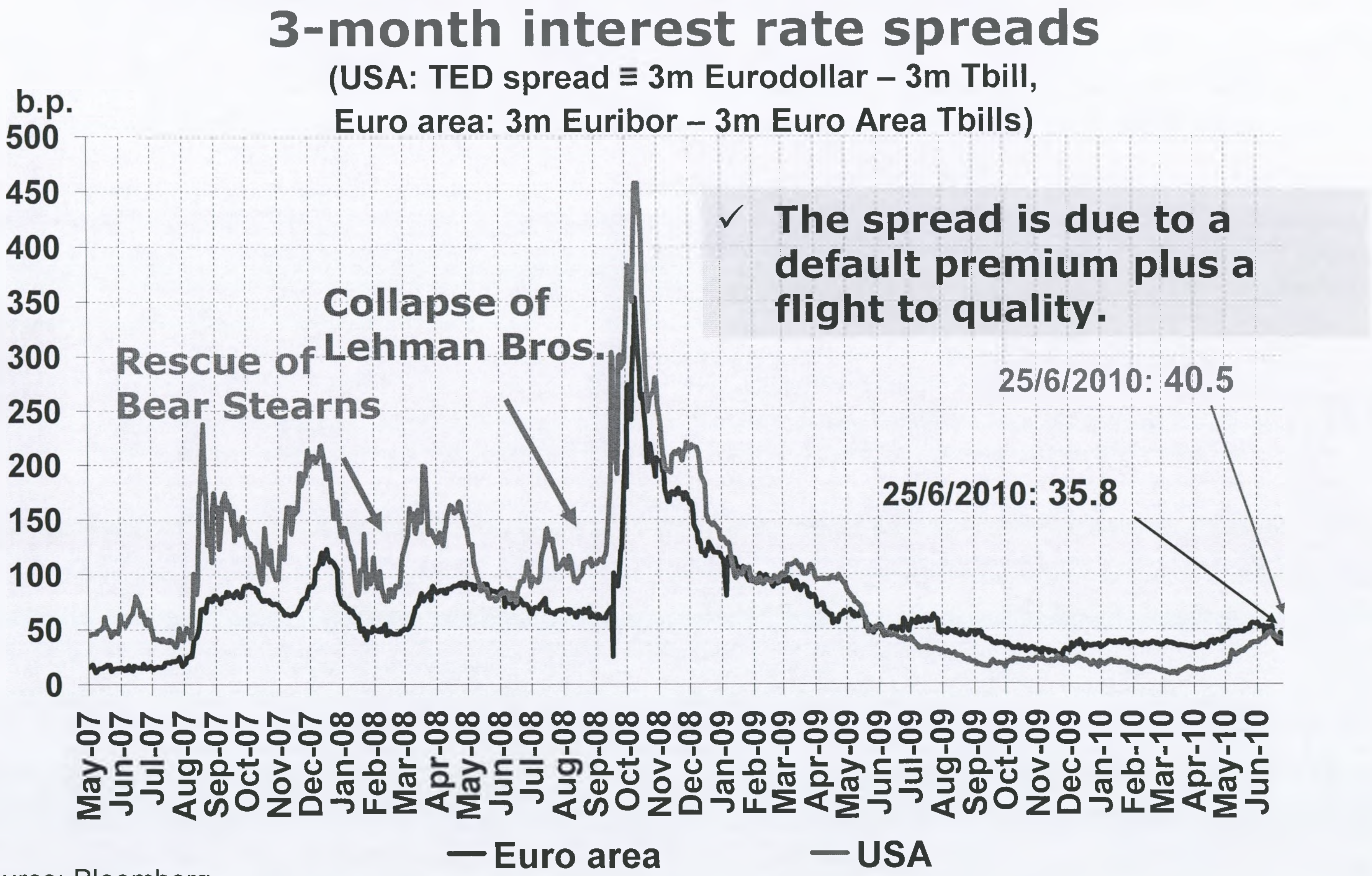
I.

FINANCIAL CRISIS & THE WORLD ECONOMY AHEAD

1) A major financial crisis turning into an economic crisis
2) The Great Recession of 2009 and the fragile recovery ahead
3) Slower long-term global growth

I.1 History of financial crisis reflected in interbank spreads over sovereign

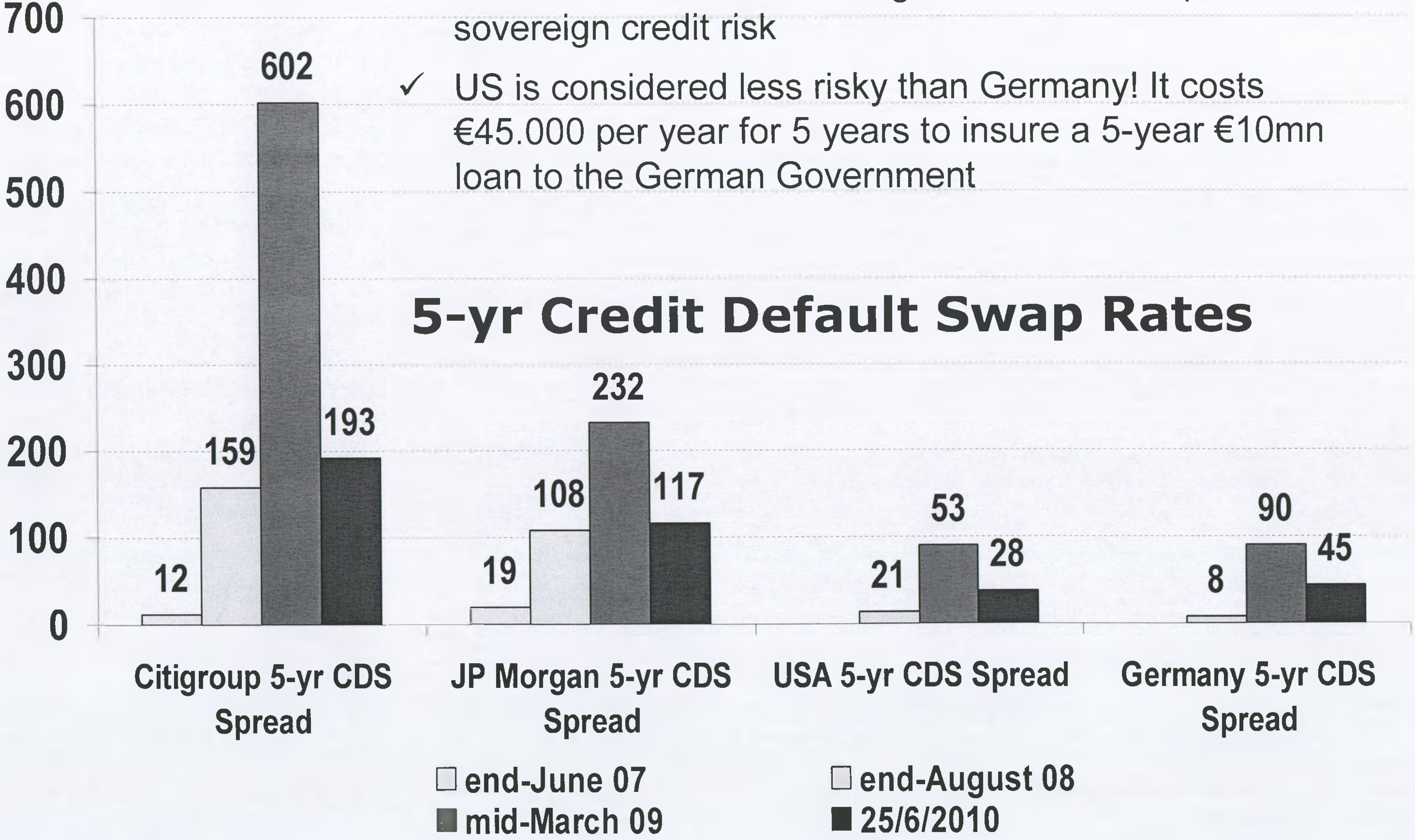


Source: Bloomberg
Note: Interest rates are annualized and their difference is in basis points

I.1 Market fear subsided but remains

✓ Since the financial crisis began, there is both private & sovereign credit risk

✓ US is considered less risky than Germany! It costs €45.000 per year for 5 years to insure a 5-year €10mn loan to the German Government



Source: Bloomberg

I.1 Bank Rescue Plans

	Package*	% 2009 GDP
Ireland	€ 410 bn	220.0 %
UK	£ 1,163 bn	78.7 %
Sweden	SEK 1,565 bn	49.3 %
Netherlands	€ 237 bn	39.1 %
Austria	€ 100 bn	34.2 %
Finland	€ 54 bn	27.3 %
Spain	€ 250 bn	22.4 %
Germany	€ 500 bn	19.5 %
France	€ 360 bn	18.0 %
USA	$ 2,500 bn	17.2 %
Portugal	€ 24 bn	13.9 %
Norway	NOK 350 bn	13.5 %
Greece	€ 28 bn	10.8 %
Belgium	€ 19.6 bn	5.5 %
Italy	€ 52 bn	3.2 %
Total EU-27	€ 3,460 bn	26.8 %

US Rescue Plans

✓ Initial Rescue Plan (included in the Table)
"**TARP**" → $700 bn, 5% of GDP

Later Extra Funds (not in the Table)

✓ New Rescue Plan
"**Financial Stability Plan**"→
$2 trillion, 14% of GDP

Nationalizations

Country	Financial Institutions
Austria	Hypo Alpe Adria
Germany	Commerzbank
UK	RBS, Bradford & Bingley, Northern Rock, Lloyds Banking Group
USA	Fannie Mae, Freddie Mac, AIG
Ireland	Anglo Irish Bank, Bank of Ireland, Allied Irish Bank
Iceland	Landsbanki, Kaupthing Bank, Glitnir, Icebank

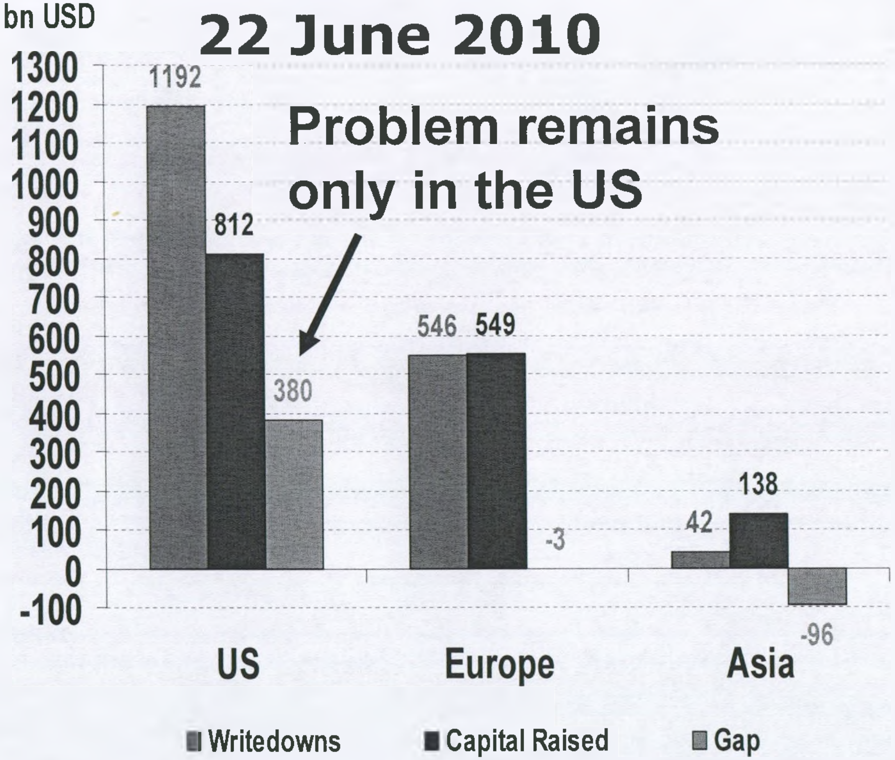
* Includes capital injections, asset purchasing and guarantees on debt issuance

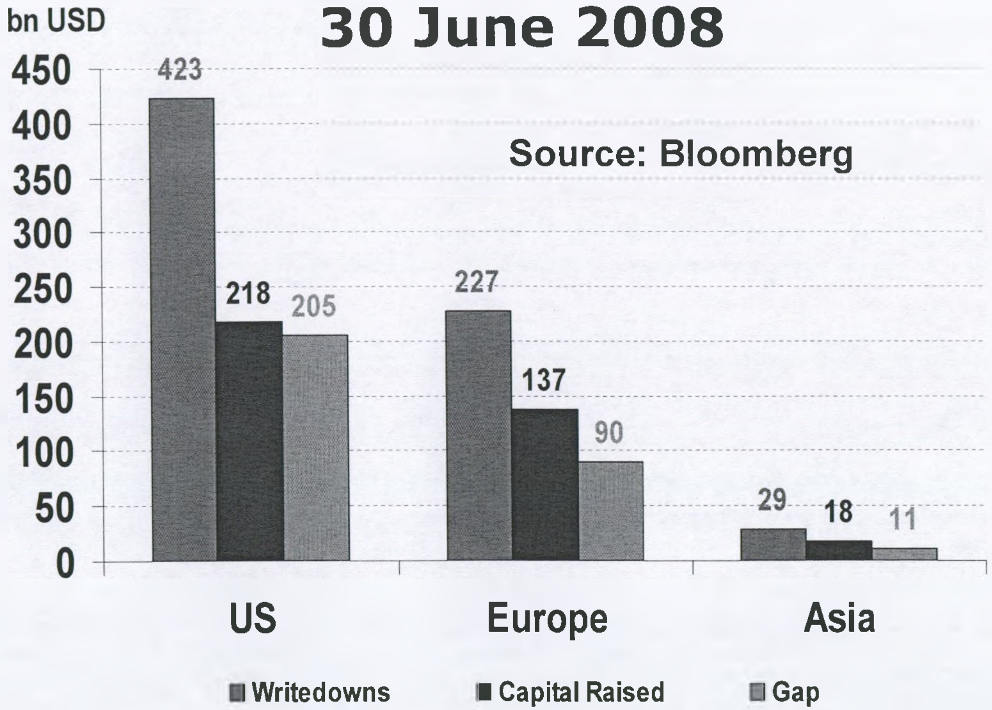
I.1 US & Western European FIs in trouble

All Financials across the Globe

(Banks, Brokers, Insurance Companies, GSEs)

Total Write-downs: $ 1779.5	Total Writedowns: $ 678.2
Total Capital Raised: $ 1498.4	Total Capital Raised: $ 372.6
Total Global Gap: $ 281.1	Total Global Gap: $ 305.6



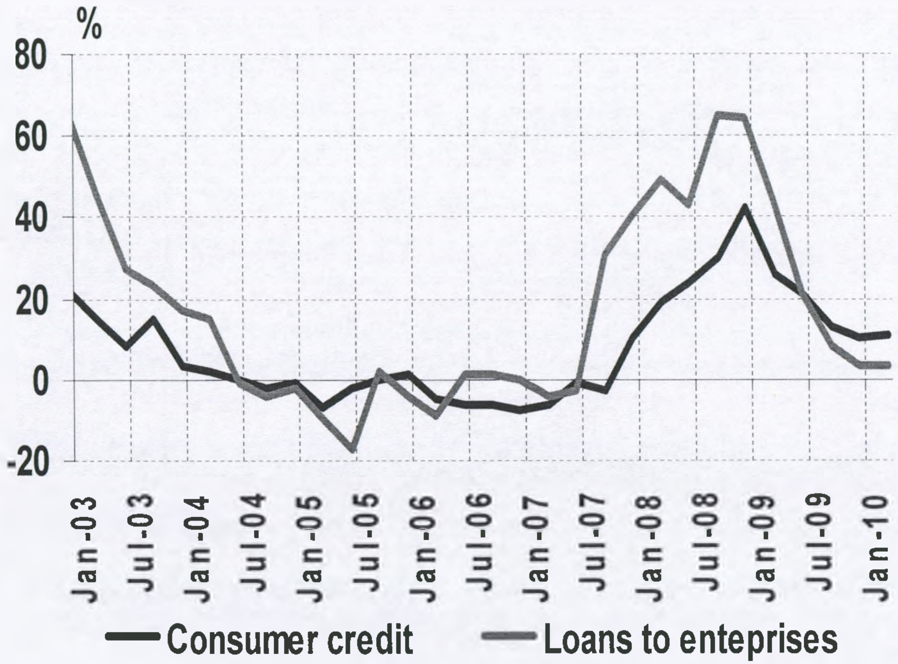


✓ **IMF** no longer provides estimates for all financials. For banks, it estimates that global write-downs will reach **$2.3 trillion** at end-2010, $0.9 in USA, $1.3 in Europe, $0.1 in Asia

I.2 Illiquidity & Insolvency ⇨ de-leveraging ⇨ tightening of credit standards

Euro Area

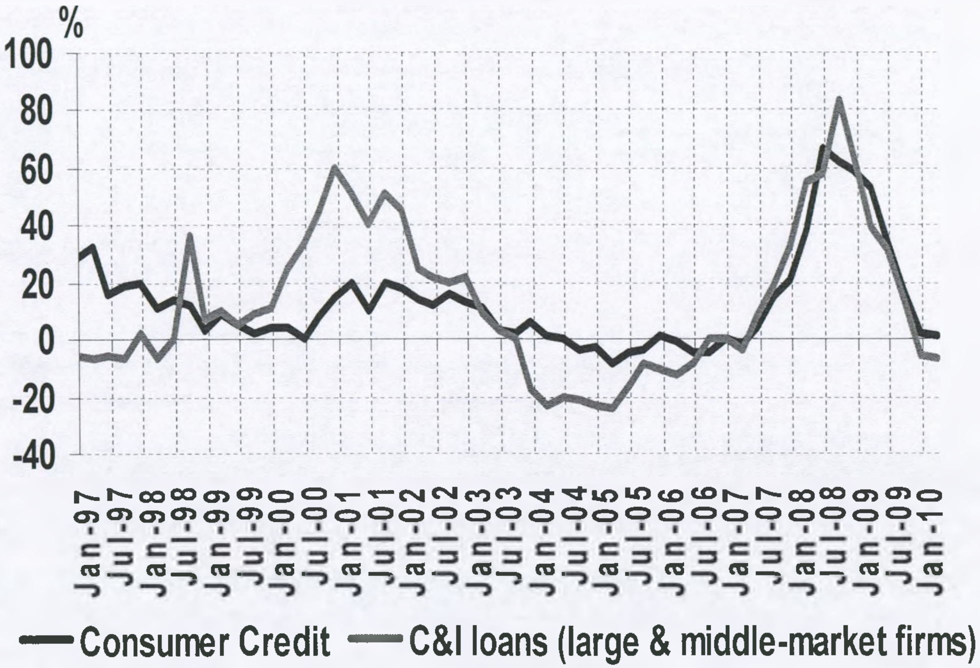
Net percentage of banks reporting a tightening of credit standards



Source: ECB, The Euro Area Bank Lending Survey, April 2010

USA

Net percentage of banks reporting a tightening of credit standards



Source: Federal Reserve, The Senior Loan Officer Opinion Survey on Bank Lending Practices, April 2010

✓ The results of the **April 2010** bank lending surveys in the US and the EA confirm the declining trend in the tightening of credit standards, which began in late 2008 - early 2009.

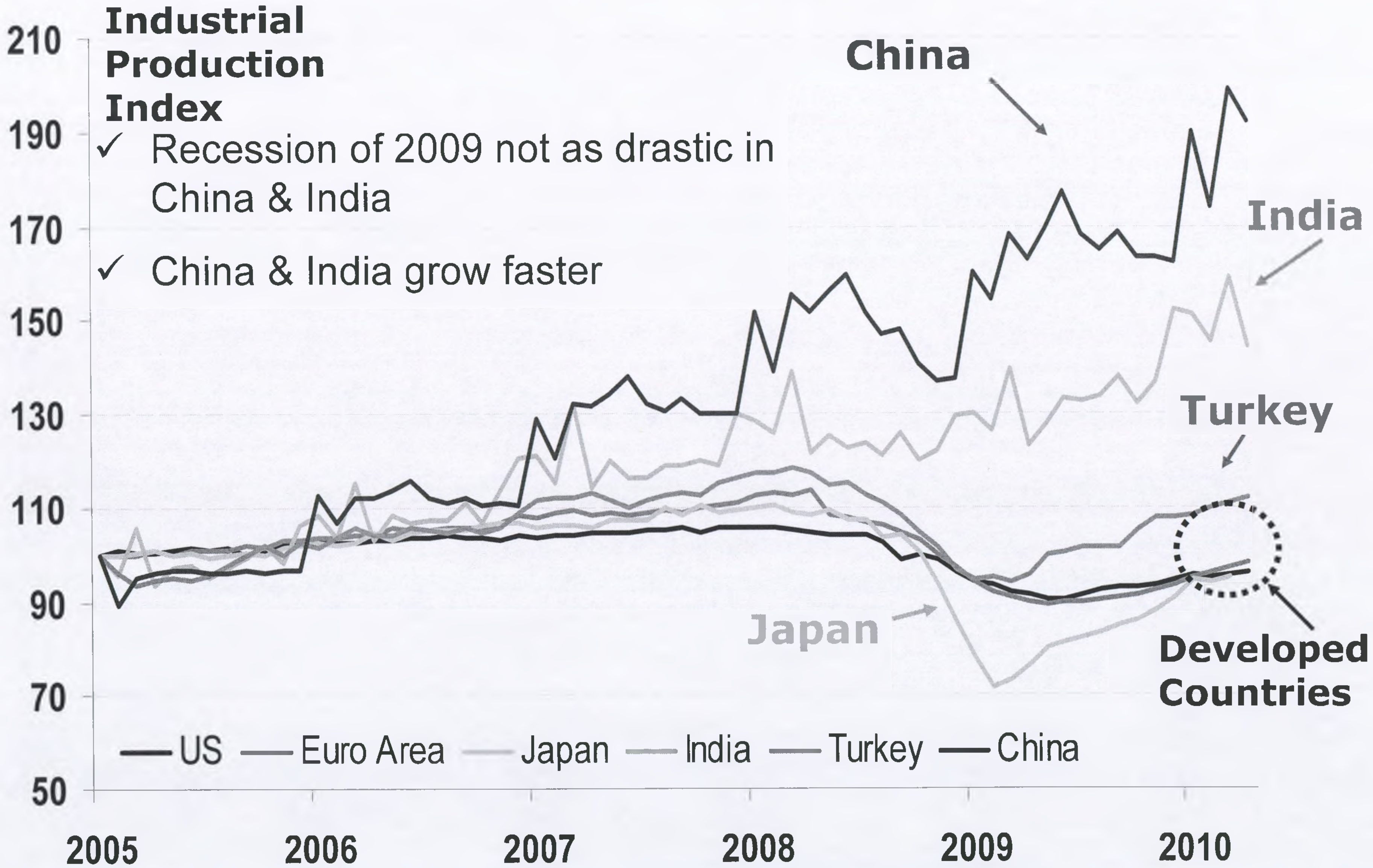
I.2 The Great Recession of 2009

Country	2009 PPP Weight (%)
United States	20.46
Euro Area	15.17
China	12.52
Japan	6.00
India	5.06
UK	3.10
Russia	3.05
Brazil	2.87

✓ In 2009, global real GDP growth turned negative for the first time since 1930

Source: IMF, World Bank

I.2 A two-speed world with emerging Asia outperforming



Source: Ecowin, Eurobank EFG Research

I.2 Output Forecasts: A fragile recovery

Real GDP	2009	2010e	2011f
USA	-2.4	3.2	3.4
Euro Area	-4.1	1.0	1.8
Japan	-5.2	1.7	1.9
China	8.7	10.0	9.5
Brazil	-0.2	6.5	4.5
Russia	-7.9	4.5	5.0
India	6.5	8.0	8.5
Greece	-2.0	-3.6	-2.9
Bulgaria	-5.0	-0.3	2.5
Poland	1.8	2.8	3.1
Romania	-7.1	0.0	3.5
Serbia	-3.0	1.5	3.0
Turkey	-4.7	6.0	4.1

Source: Eurobank EFG Research

- ✓ Recovery almost everywhere but depends on monetary authorities keeping interest rates low and fiscal authorities continuing the stimulus
- ✓ Stronger recovery in the US than the Euro Area
- ✓ Greece is the outlier in 2010-2011
- ✓ Sluggish recovery in our region, with Turkey showing the best prospects
- ✓ We avoided a repetition of the 1930's by transferring the associated costs to the future

I.3 The world ahead: Slower growth

It was not the Great Depression or Capitalism's 1989, but this Great Recession is likely to leave its <u>permanent</u> marks

Politics: Economic & political power shift → Asia and G-20

Economics: Lower growth, more costly financial intermediation

1 **Higher real interest rates ahead**
   - ✓ Risk premia to stay high
   - ✓ Higher demand for new bank equity capital will increase the cost of intermediation
   - ✓ Fiscal debt will compete with private debt for funding
   - ✓ Central bank intervention interest rates expected to go back up

2. **Mediation of global imbalances**: The US consumer is forced to reduce leverage and increase savings – hence lower exports by third countries to the US
   - ✓ The Chinese consumer is not ready to close the gap yet
   - ✓ India is still a closed economy
   - ✓ Europe depends on exports

3. **Future de-leveraging** of the government sector, hence restrictive fiscal policy

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II.

IS THE *GREAT RECESSION* TURNING INTO AN INTERNATIONAL SOVEREIGN DEBT CRISIS?

1) The need to save the economies pushed deficits and debts up
2) The fear of the crisis keeps risk premia high

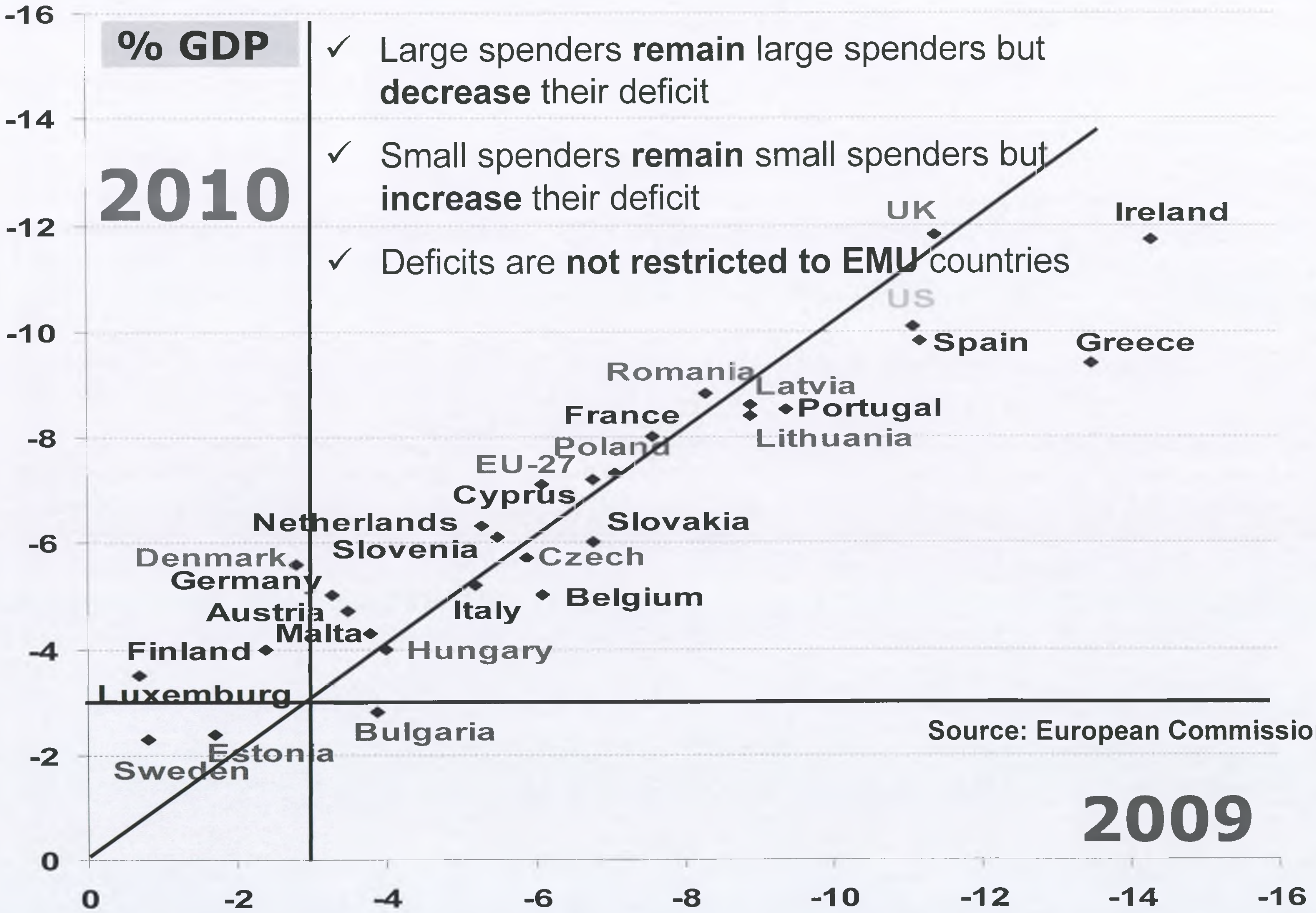
II.1 Fiscal deficits: Remaining high

Fiscal balance/GDP	2009	2010e	2011f
USA	-12.5	-11.0	-8.2
Euro Area	-6.3	-5.8	-5.3
Japan	-10.3	-9.8	-9.1
China	-2.2	-2.8	-2.0
Brazil	-3.3	-2.5	-2.0
Russia	-5.9	-4.0	-3.0
India	-10.5	-8.5	-7.5
Greece	-13.6	-8.1	-7.6
Bulgaria	-3.9	-3.8	-2.8
Poland	-7.1	-7.3	-7.0
Romania	-8.3	-7.8	-6.4
Serbia	-4.2	-4.8	-4.0
Turkey	-5.5	-3.8	-3.0

Source: Eurobank EFG Research

- ✓ We avoided a repetition of the 1930's by transferring the associated costs to the future
- ✓ Deficits everywhere, not restricted to EMU countries
- ✓ Even Asian countries have fiscal deficits
- ✓ In Toronto, the G-20 decided on "growth-friendly" fiscal consolidation, halving the deficits by 2013 and stabilizing the debt-to-GDP by 2016

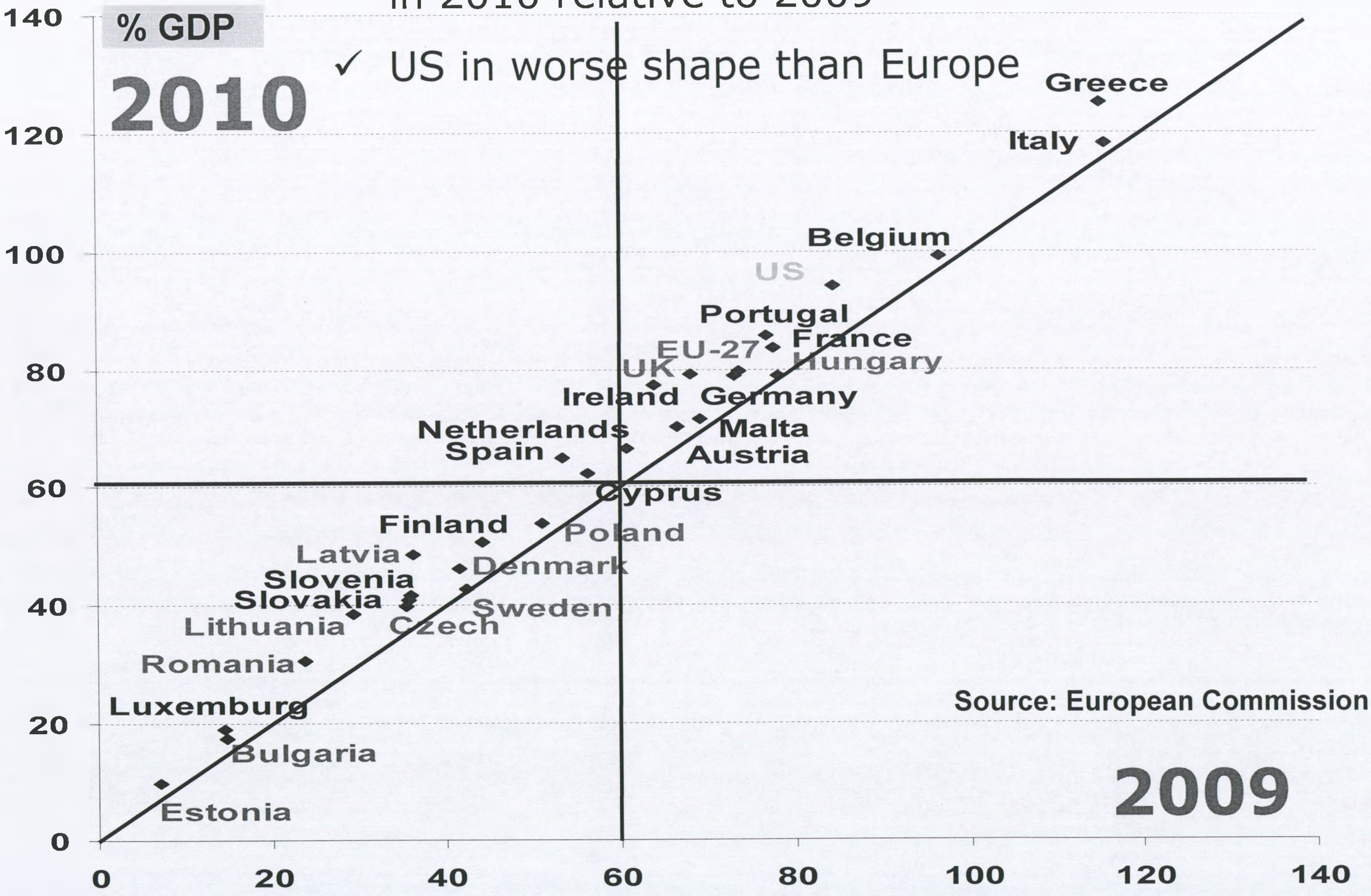
II.1 Fiscal Deficit as % of GDP



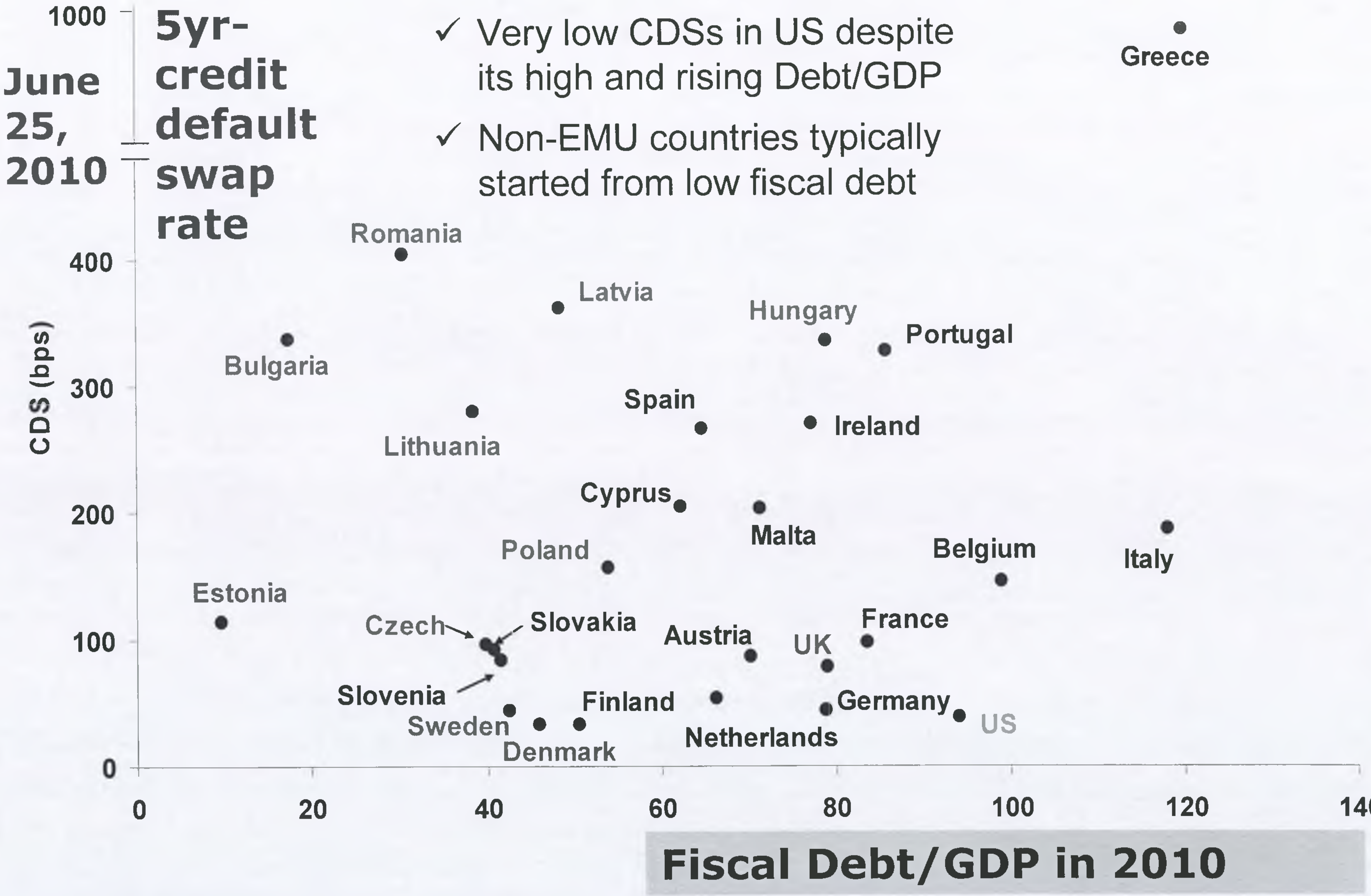
Source: European Commission

II.1 Gross fiscal debt as % of GDP

- ✓ General Government Debt / GDP rises in 2010 relative to 2009
- ✓ US in worse shape than Europe



II.2 Size of market fear not related to size of General Gov. Debt/GDP



- ✓ Very low CDSs in US despite its high and rising Debt/GDP
- ✓ Non-EMU countries typically started from low fiscal debt

III.

COMMENCEMENT TIME FOR EMU

III. Euro Area: An new beginning

✓ **Euro Area under pressure because it lacks a concrete fiscal mechanism:**

❖ The "stability and growth pact" failed

❖ The "no bail out" clause failed

✓ **Can a new fiscal mechanism be created to ensure long term EMU sustainability?**

1) Bail out mechanism is being created with € 750 bn

   ❖ €60 bn EU Commission facility (Article 122.2)

   ❖ € 440 bn "European Financial Stability Facility" in loan guarantees

   ❖ € 250 bn IMF top-up

   ❖ ECB asset purchases & special operations

2) Funding the supporting pool will be a topic of discussion

3) Ways to reduce intra-EMU imbalances should also be a topic of future discussion

III. EMU Bail out mechanism: Pros vs. Cons

PROS

1) Large scale (€750 is over 10% of Euro Area public debt)
2) Coordinated across different institutions (EU Commission, ECB, IMF)
3) Includes conditionalities (reduce moral hazard)
4) Complementary targeted ECB action

CONS

1) Lack of detail
2) Legal obstacles (to be ratified by national parliaments, inconsistent with "bail-out mechanism"?)
3) Does not tackle insolvency problems, which are due to fiscal considerations, only reduces liquidity risk
4) ECB independence compromised?

IV.

COMMENCEMENT TIME FOR GREECE

1) THE EU/ECB/IMF PROGRAM
2) WHY GREECE CANNOT DEFAULT
3) HIDDEN STRENGTHS THAT MARKETS MISS

IV.1 EU/IMF/ECB adjustment program: Key characteristics

- ✓ A well-balanced program, which draws on IMF's experience
- ✓ Key characteristics:
  - ❖ **Real growth resuming in 2012** but staying well below the 1996-2007 historical norm
  - ❖ **Inflation subdued**, even turning negative in 2011
  - ❖ **Front-loaded** reforms and drastic first-year fiscal tightening with a large subsequent fiscal cushion, with only €1 bn revenues from privatizations and with no zeal to ever zero the deficit
  - ❖ EU/IMF/ECB detailed **conditionalities** with quarterly targets as a strong disciplinary device
  - ❖ Effort to minimize the burden on the poor
  - ❖ Real **pension solution** sought which controls hidden future liabilities
- ✓ **Debt-to-GDP ratio declines to 119%** 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 **80%**

IV.1 The 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	2.7
GDP deflator (%)	0.7	1.2	-0.5	1.0	0.7	1.0	1.1	1.5
Nom. GDP (€ bn)	237	231	224	228	235	242	251	308
Int. Rate (%)	5.0	4.8	4.8	5.3	5.6	5.8	5.8	5.9
Bund Rate		175	275	350	350	350	350	350

Sensitivity analysis

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Debt-to-GDP	2009	2010	2011	2012	2013	2014	2015	2020
Baseline	115	133	145	149	149	144	139	119
Higher growth +1% per year	115	131	141	142	139	131	122	80
Lower growth -1% per year	115	135	150	156	160	159	158	166

IV.1 The EU/IMF/ECB program: Detailed forecasts

	2009	2010	2011	2012	2013	2014	2015	2020
Current Account								
(%GDP)	-11.2	-8.4	-7.1	-5.6	-4.0	-2.8	-1.9	---
Gen Gov Deficit								
(%GDP)	-13.6	-8.1	-7.6	-6.5	-4.8	-2.6	-2.0	-1.0
(€ bn)	-32.3	-18.6	-17.0	-14.7	-11.5	-6.2	-5.0	-3.1
Gen Gov Debt *								
(%GDP)	115.1	133.3	145.1	148.6	149.1	144.3	138.8	119.2
(€ bn)	273.4	307.5	324.7	339.7	350.4	353.8	348.4	367.5
Interest Expense								
(%GDP)	5.1	5.6	6.5	7.5	8.1	8.4	8.1	7.0
(€ bn)	11.9	13.0	14.9	17.1	18.9	20.4	20.3	21.5
Primary Surplus								
(%GDP)	-8.6	-2.4	-0.9	1.0	3.1	5.9	6.0	6.0
(€ bn)	-20.4	-5.5	-2.0	2.3	7.3	14.3	15.1	18.5

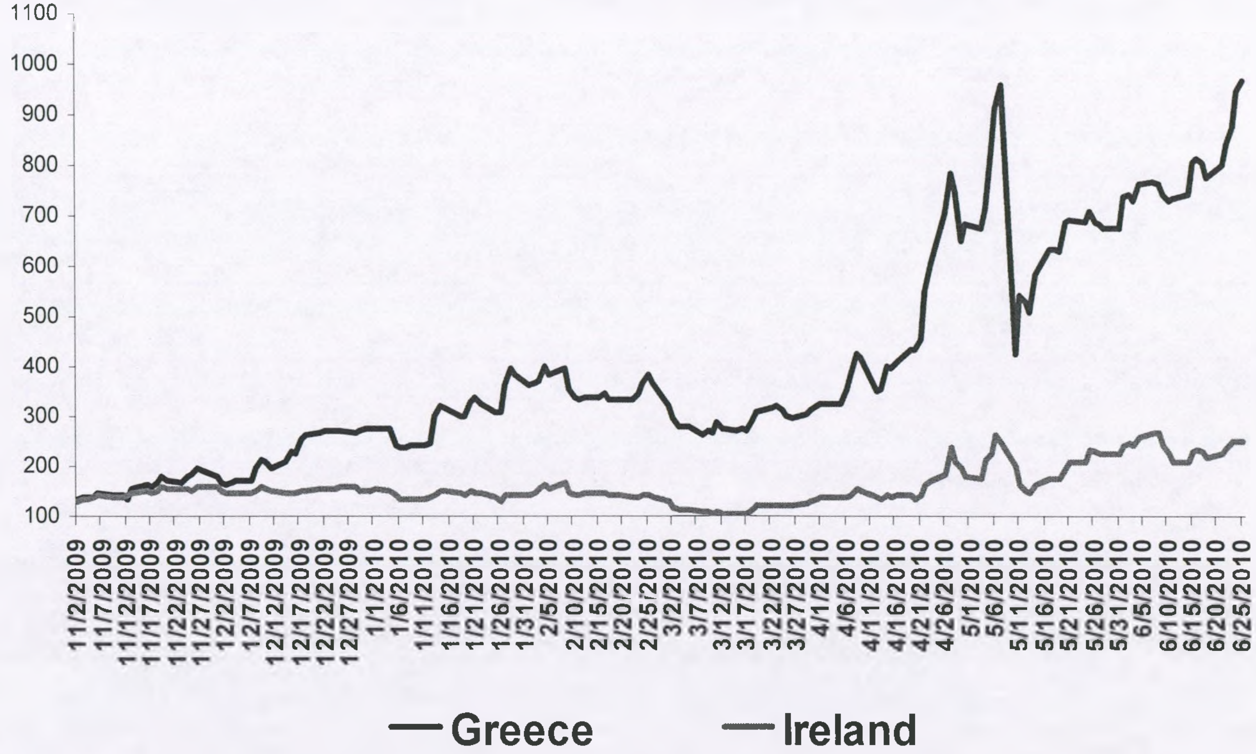
❖ Debt numbers do not include the reducing effect of privatizations, neither the €26 bn or 11% of GDP of government guarantees (according to Eurostat rules)

IV.2 The market is negative on Greek Government Bonds despite the rescue package

A nervous market

- ✓ On June 25th, 5-yr CDS was **9.66%** implying a cumulative risk-neutral **probability of 36.8% for a total capital loss** any time during the 5-year period, or a **99.9% probability for a capital loss of 10%**
- ✓ On June 25th, the 2-year Greek Government bond yield was 10.115%, a spread of 9.54% over Bunds!!

5-yr CDS – Greece & Ireland



- ✓ **Markets may have overreacted: They do not even trust the rescue package will be used, as 2-yr bonds are extremely high**
- ✓ **Market worries are overblown**

IV.2 Market worries of default are overblown

The argument goes that if the EU/ECB/IMF Program succeeds and in 2012 Greece begins generating the first primary surpluses, then it will be tempted to default or restructure its huge debt. This cannot happen because:

1. The stakeholders of GGBs are primarily Greeks and other EMU members, who have a strong incentive against the default solution
   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. EMU members would object to a default. It may create FI bankruptcies in the Euro Area. Thus, a Greek default would be an EMU decision, not a Greek decision.
   iii. The ECB holds significant amounts of GGBs & Greek covered bonds as 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. Haircuts provide only a short run solution. Debt-to-GDP ratio will soon shoot up if the underlying causes are not cured.
3. Huge adjustment costs during the default/restructuring process and inability to tap the markets for a long time.
4. Contagion risks cannot be ignored in the European financial sector with a possible spread of fear about EMU sustainability

IV.2 The set of possible scenarios

1) Main scenario – Eurobank view - Euro Area intact, Program succeeds, then Greece has a choice to voluntarily take or not take a haircut

   i. Greece would choose not take a haircut since a cost-benefit analysis would show that the cost – especially for the local economy and the political one - is way too high, which could eliminate all benefits form restructuring debt. Also, success implies conformity with the established EU rules.

   ii. A rescheduling of the EU/IMF €110 bn loan is more possible to provide more time for adjustment

2) Remote scenario - Euro Area intact, Program fails as Greeks prove incapable of handling belt-tightening ⇨ severe repercussions:

   i. Either a new austerity program with stricter conditionalities ⇨ a worse recession and significant lowering of living standards, but no haircut because of the repercussions

   ii. Or a forced exit from EU ⇨ all hell breaks loose ⇨ no reversal in sight, with additional loss of political power in Europe, default

3) Extreme scenario - Euro Area collapses

   i. ⇨ turmoil in Greece and a severe lowering of living standards ⇨ default is likely as foreigners own most of the debt ⇨ vicious cycle of deep economic recession and societal upheaval ⇨ but a reversal of fortunes in sight as every other EMU country suffers as well.

✓ **Current credit default swap rates over-penalize lenders to the Greek government. We do not think a haircut is probable or necessary because case #1 would prevail**

IV.2 Quantitative estimates of distance to default say NO to restructuring

- ✓ Define **Distance to default** = (Net revenues – interest on debt)/GDP
- ✓ Net revenues are total revenues net of (inelastic) expenditures, necessary for the government and the economy to function, thus are defined as: **Total revenues – 90% of (public wages + pensions + social transfers + operating expenditures)** Σιέμενς;
  Αναγκαίες δαπάνες
- ✓ The above definition of net revenues essentially means that the government can cut down to zero defense expenditures and public investment.

Economic Distance to Default (% of GDP)

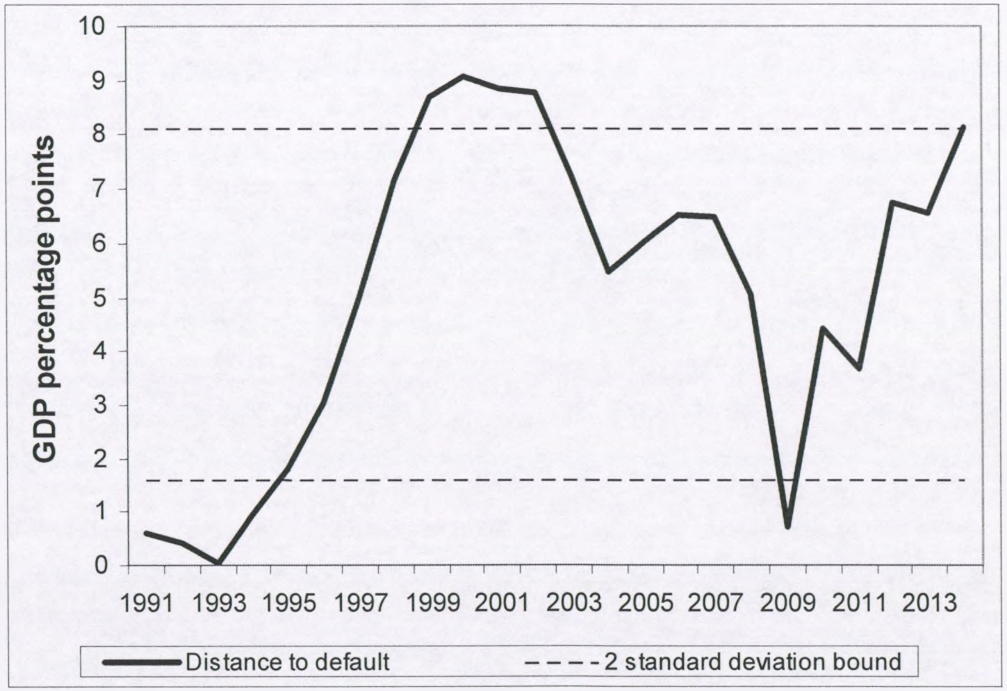
	Average 91-08	2009	2010	2011	2012	2013	2014
A. Net Revenue	12.6	5.7	10.0	10.2	14.2	14.5	16.5
B. Interest/GDP	7.5	5.0	5.6	6.6	7.5	8.1	8.4
C. Distance to Default: (A-B)	**5.1**	**0.7**	**4.4**	**3.6**	**6.7**	**6.4**	**8.1**

Note: 2010-2014 estimates based on central EU/ECB/IMF scenario

IV.2 By 2015 distance to default as good as in 2000, away from 2009 levels

- ✓ Two danger years: 1993, 2009
- ✓ In 1993, interest expense was 12.5% GDP, now worst case expected in 2014 at 8.4% GDP
- ✓ With EU/ECB/IMF program, DTD increases above 2 St. Dev. in 2010 and continues to improve despite higher debt service cost, due to
  - ❖ permanent wage cuts
  - ❖ improved tax revenues
- ✓ Improvement much higher when pension reform kicks in after 2015

Greece: Economic Distance to Default



Source: Eurobank EFG Research

<u>Sensitivity analysis</u>

A. Higher GDP growth (and inflation) improves DTD. If GDP growth is 1% higher, DTD increases to 9.2% of GDP in 2014, its highest level ever (from 8.1% of the baseline)

B. If debt service increases by 1ppt of GDP in 2014 (to 9.4%), DTD increases to 6.3% of GDP, still well above long-term average

C. If both A and B occur, DTD increases to 8.2 in 2014, i.e. effects cancel out each other

IV.2 Conservative Eurobank EFG baseline scenario on Government Debt Dynamics

	2009	2010	2011	2012	2013	2014	2015	2020
Real GDP (%)	-2.0	-3.6	-2.9	1.5	2.2	2.5	2.7	2.7
GDP deflator (%)	1.4	3.5	1.0	1.5	1.8	2.0	2.0	2.0
Nom. GDP (€bn)	237.5	237.0	232.3	239.3	249.0	260.3	272.7	344.0
Nom.GDP (%)	-0.7	-0.2	-2.0	3.0	4.0	4.5	4.8	4.8
Pr.Balance (€bn)	-20.4	-3.0	1.9	6.7	11.6	20.0	21.0	27.5
Pr Bal. (% GDP)	-8.6	-1.3	0.8	2.8	4.7	7.7	7.7	8.0
Int. cost (%GDP)	5.0	5.9	6.3	7.1	7.4	7.5	7.2	5.4
Int. cost (% Rev.)	13.6	14.6	14.9	16.7	17.6	17.9	17.5	14.7
Gen.Gov.Debt (% GDP)	**122.0**	129.4	137.6	137.8	135.2	129.1	122.7	**90.0**

Source: EU/IMF/ECB program, Eurobank projections

- ✓ ***In our baseline (yet still conservative) scenario, the ratio is stabilized sooner and is brought to 90% of GDP by 2020 i.e., ca 30ppts-of-GDP lower than projected by the Fund***
- ✓ <u>Assumptions</u> : Average annual real GDP growth broadly in line with the IMF baseline. Average annual inflation ca 0.85ppts higher than the IMF. Annual degree of implementation of revenue-side measures ~ 0.75%, Elasticity of tax revenue w.r.t. nominal GDP ~ 1.0 (in line with long-term average)*

* *Elasticity excluding the effects of IMF program measures*

IV.2 More optimistic but feasible Eurobank EFG scenario on Government Debt Dynamics

	2009	2010	2011	2012	2013	2014	2015	2020
Real GDP (%)	-2.0	-3.1	-2.4	2.0	2.7	3.0	3.2	3.2
GDP deflator (%)	1.4	3.8	1.2	1.8	2.1	2.3	2.3	2.3
Nom. GDP (€bn)	237.5	238.8	235.9	244.8	256.5	270.2	285.1	373.0
Nom.GDP (%)	-0.7	0.5	-1.2	3.8	4.8	5.3	5.5	5.5
Pr.Balance (€bn)	-20.4	-2.6	2.7	7.9	13.3	22.2	23.8	34.0
Pr Bal. (% GDP)	-8.6	-1.1	1.1	3.2	5.2	8.2	8.3	9.1
Int. cost (%GDP)	5.0	5.8	6.2	6.9	7.1	7.1	6.7	4.5
Int. cost (% Rev.)	13.6	14.6	14.8	16.4	17.2	17.4	16.7	12.5
Gen.Gov.Debt (% GDP)	**122.0**	128.3	135.0	133.7	129.5	121.9	113.9	**71.8**

Source: EU/IMF/ECB program, Eurobank projections

- ✓ ***In our optimistic (yet feasible) scenario, the Debt-to-GDP ratio is stabilized sooner and reaches 72% of GDP in year 2020 i.e., ca 48ppts-of-GDP lower than the baseline scenario of the EU/ECB/IMF Program***
- ✓ <u>Assumptions:</u> 0.5ppts higher GDP growth & 0.25ppts/annum higher inflation relative to our baseline scenario

IV.3 Question 1: What is the market afraid of?

a) Implementation risks (⇨ explain high 2-year yields) originating from

   i. possible lack of political will in individual ministries (e.g. incomplete attempts for reforms)

   ii. a lack of expertise or incentives in the public bureaucracy to support the reforms

   iii. Delays & budget overruns as political time is a lot slower than market time, which may nevertheless create vicious cycles and further stall the process

   Yet, easy to pass legislature early on, easy to cut many expenses, evidence of good execution thus far

b) High unemployment may cause a civilian backlash in a year or so, especially if government does not deliver the promised reforms on time

   Yet, program is front-loaded

c) As European belt-tightening is currently taking place, a low European economic growth may cause Greek growth to stall

   Yet, Greece is a relatively closed economy and over half of its exports (57%) are channeled outside the Euro Area

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

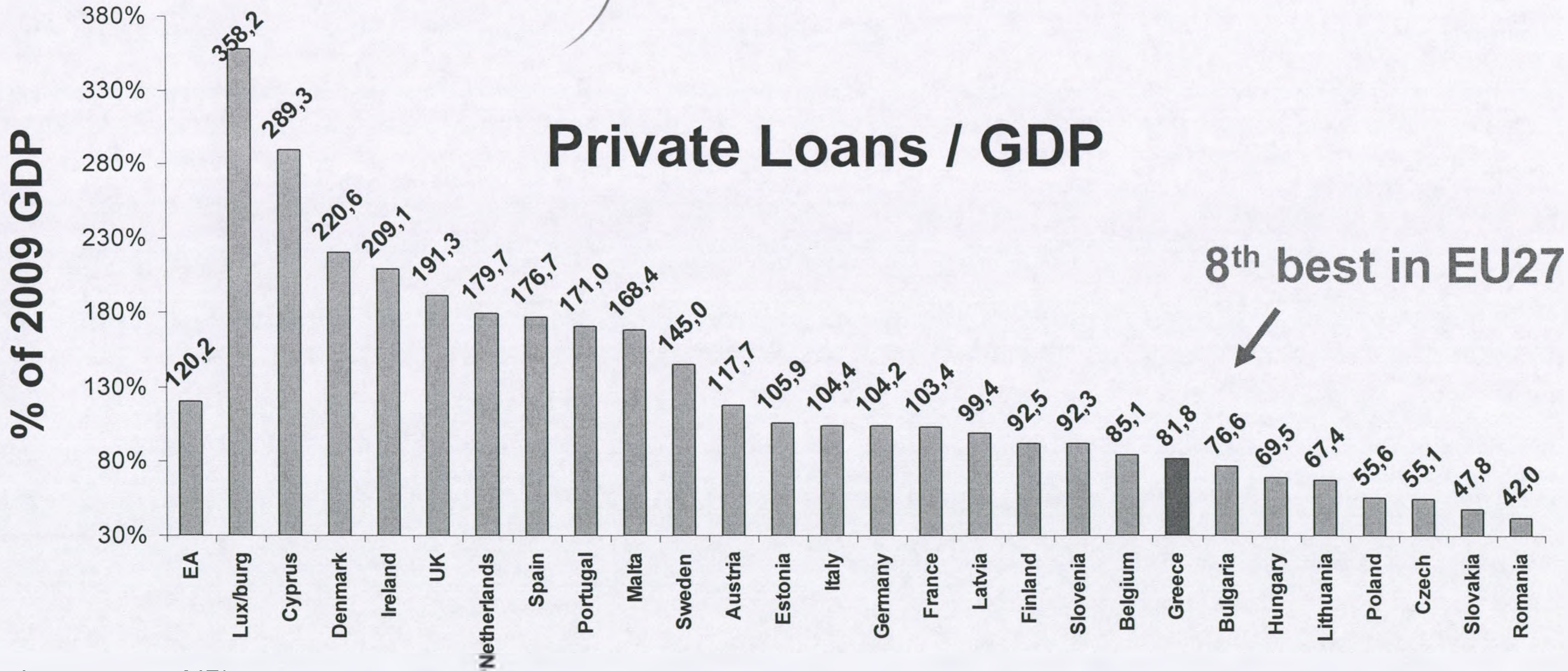
   Yet, if program is successful ⇨risk premia will decline, while a lengthening of the maturity of the EMU €110 bn loan is likely (IMF suggested 5 years)

IV.3 Question 2: Which factors markets may underestimate?

1) The Program is executed on time so far and the budget may surprise on the upside, **2010 fiscal measures** outstrip target **by 2.2% GDP**
2) **Reforms are drastic**, particularly the fiscal, pension & labor, e.g.
   - Public wages & pensions bill down **-15%** yoy in 2010 (-1.6% GDP)
   - Annual Pension expenditure to decline by **10 pps** of GDP
3) **Tax evasion** is huge and would gradually be captured, as e.g. **36%** of labor force are self employed but contribute only **4%** of personal income tax and tax revenues as % of GDP are among the lowest in the EU (32%).
4) **Public waste** is huge and its reduction has begun, e.g. annual drug expenses of €9.2 bn is **3 times bigger** per capita than in Spain
5) **Subdued social unrest** so far, as size of demonstrations is 1/20 to 1/10 the size of earlier decades, plus consensus exists on the need for reforms
6) Public sector **owns assets** worth **over € 300 bn**, while privatizations and land and property development are already announced and can take hold in a bigger wave later on
7) The **private sector** is **under levered**, deposits are 1.1 times GDP, private sector debt is 81% of GDP, the lowest in the EU, and there is a lot of private wealth
8) There is a **strong growth story** in Greece, with **productivity growth ~ 3 times bigger** than in Germany or Spain.
9) Greece can **restore** its loss in **competitiveness**

IV.3 *Factor 7:* Is overindebtness a characteristic of the private sector in Greece as well?

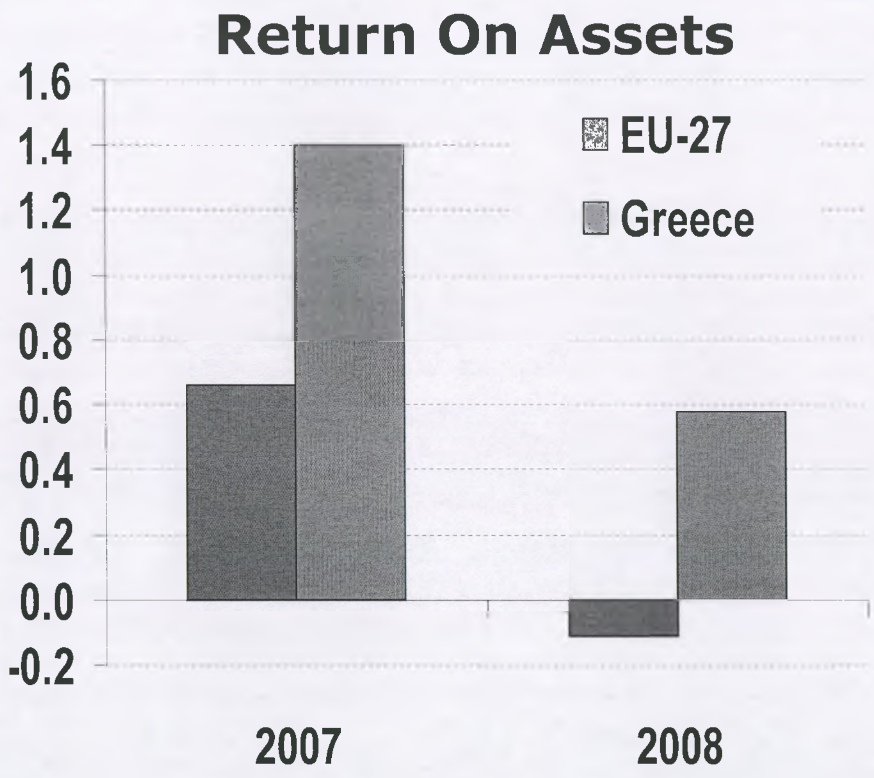
- Greeks own a large fraction of **international shipping**
- **Greek bank deposits are 1.1 times GDP**
- Unlike the US or Western Europe, the **Greek banking sector did <u>not</u> cause the 2008-2009 recession**
- **Net Gov Debt 86.1% of GDP**, a lot lower than gross debt
- **Private leverage is small**



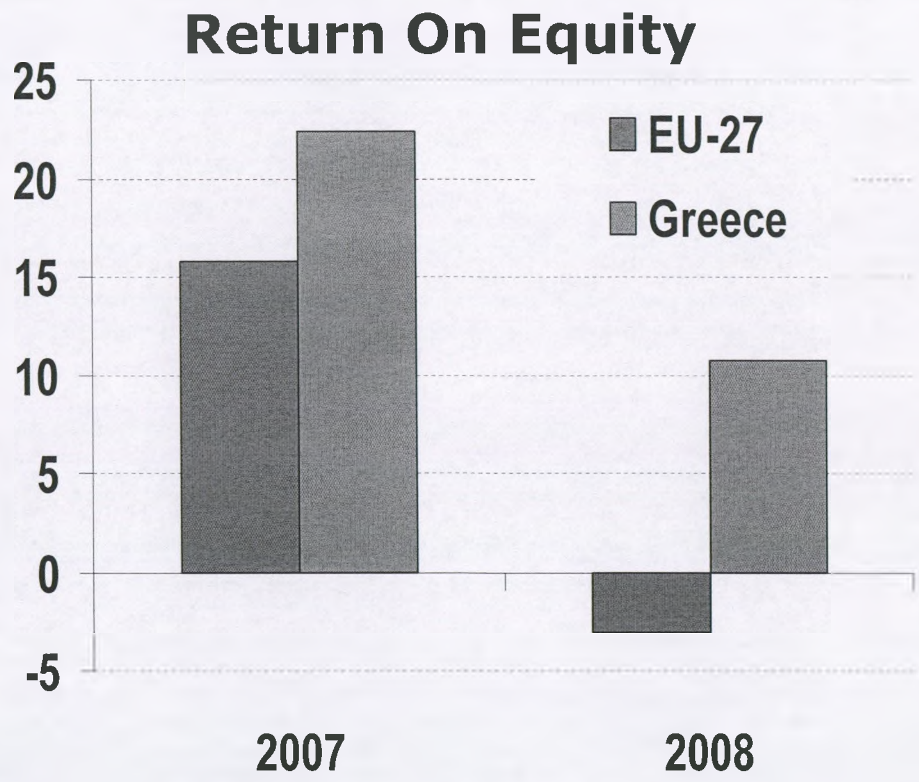
Loans to non MFIs excluding General Government from MFIs excluding Eurosystem, March 2010, % of 2009 GDP

IV.3 Factor 7: Greek banks, unlike US & European FIs, remained strong

- ✓ **Less of a problem in Greece relative to EU-27**
- ✓ Greek rescue package was the third lowest in EU & little of it was used during the international financial crisis



Source: ECB



Bank Groups in Greece

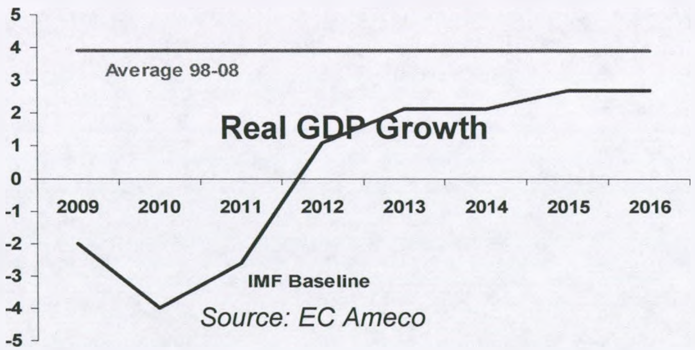
	1H 2008	1H 2009
ROA	1.1	0.5
ROE	15.7	7.7

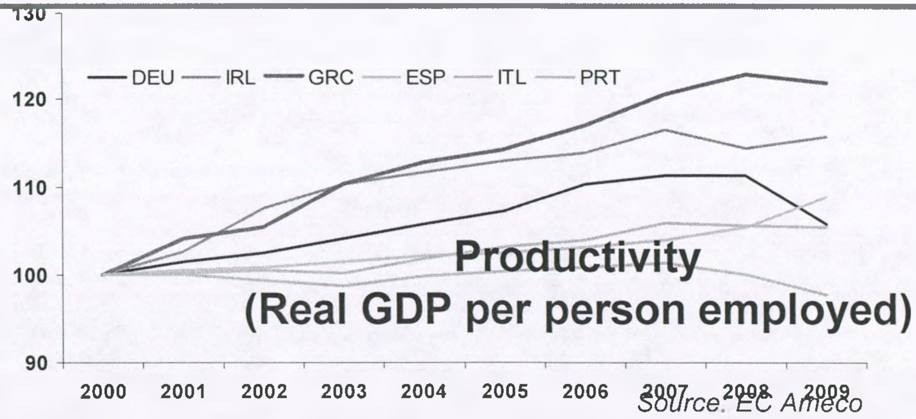
Source: Bank of Greece

IV.3 *Factor 8:* Is there a strong growth story in Greece?

(I) YES, and relates to productivity

- Greece grew above EMU average from 1996 to 2009
- Average annual productivity growth in 2000-2009 was 2.4%, or three time bigger the corresponding growth in Germany or in Spain or in Portugal
- This high productivity growth will continue in the future, once the recession is over, for a number of reasons:
  a) Capital formation
  b) Real Wages
  c) Structural reforms & institutions building
  d) Public sector crowding in
  e) Capturing the underground economy





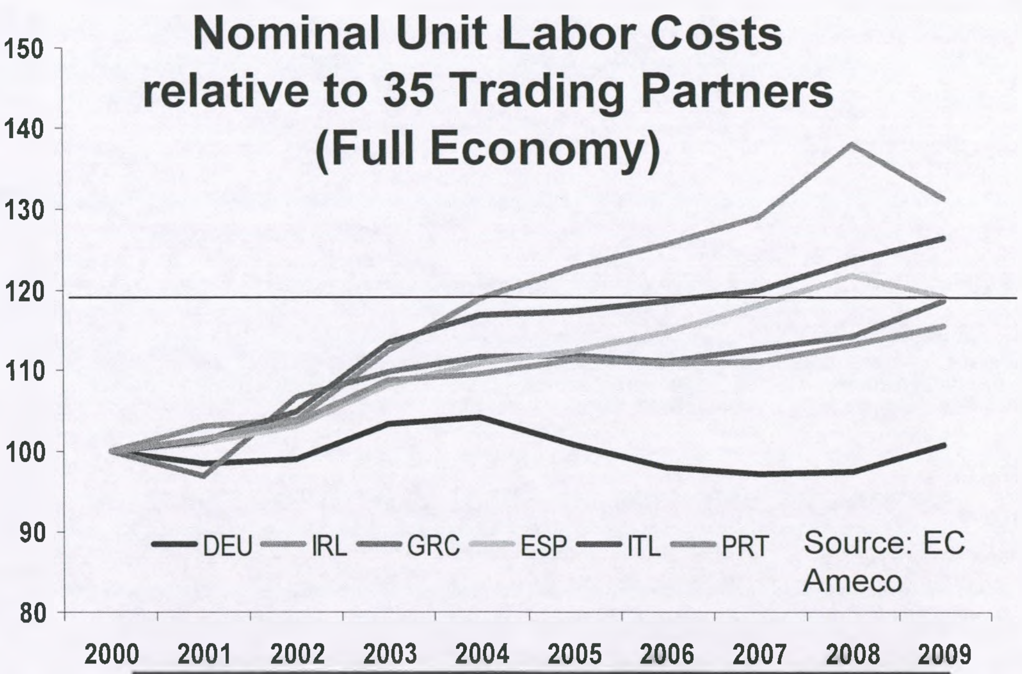
(II) YES, in the medium term

- What are the forces that could lead a recovery?
  a) The net export sector already smoothens the drastic drop in consumption and is expected to lead the recovery: **In 2010-11, we expect imports to decline cumulatively by 20% and exports to increase by 20%** without counting the competitiveness push
  b) Net Investment ought to turn positive, when economic climate stabilizes, as public funding is available
- In the longer-run, high productivity growth will continue:
  a) Capital intensity is low, infrastr. projects needed, funding is available
  b) Real Wages are declining by over 10%, improving competitiveness
  c) Structural reforms & institutions building will result in a more export-oriented and competitive economy, with gains estimated higher than 20% of GDP
  d) Public sector crowding in
  e) Capturing the underground economy, which is close to 30% of GDP will improve all debt magnitudes

IV.3 *Factor 9:* Can Greece restore competitiveness?

Competitiveness of the Greek economy deteriorated since EMU **but by less than others**

- ✓ Nominal wages have increased faster than productivity (as opposed to real wages)
- ✓ As a result, nominal unit labor costs relative to 35 trading partners have increased by **~20% since 2000.**
- ✓ Spain and Portugal have witnessed a similar deterioration in their competitive position. Italy and Ireland did even worse
- ✓ Only Germany has slightly improved its competitive position, but Germany is not Greece's competitor in export markets.
- ✓ Since 1996, Greece, Ireland and Portugal witnessed a similar deterioration in competitiveness **(~1.2% per annum**),
- ✓ Spain did slightly better (~0.9% p.a.), whereas Italy did worse (~2% p.a.)
- ✓ **Most of nominal ULC increase has been in construction sector and public sector (both non-tradeables)**
- ✓ Manufacturing has witnessed the lowest increase in nominal ULCs, around 5% since 2000, compared to ~30% in Italy and Spain

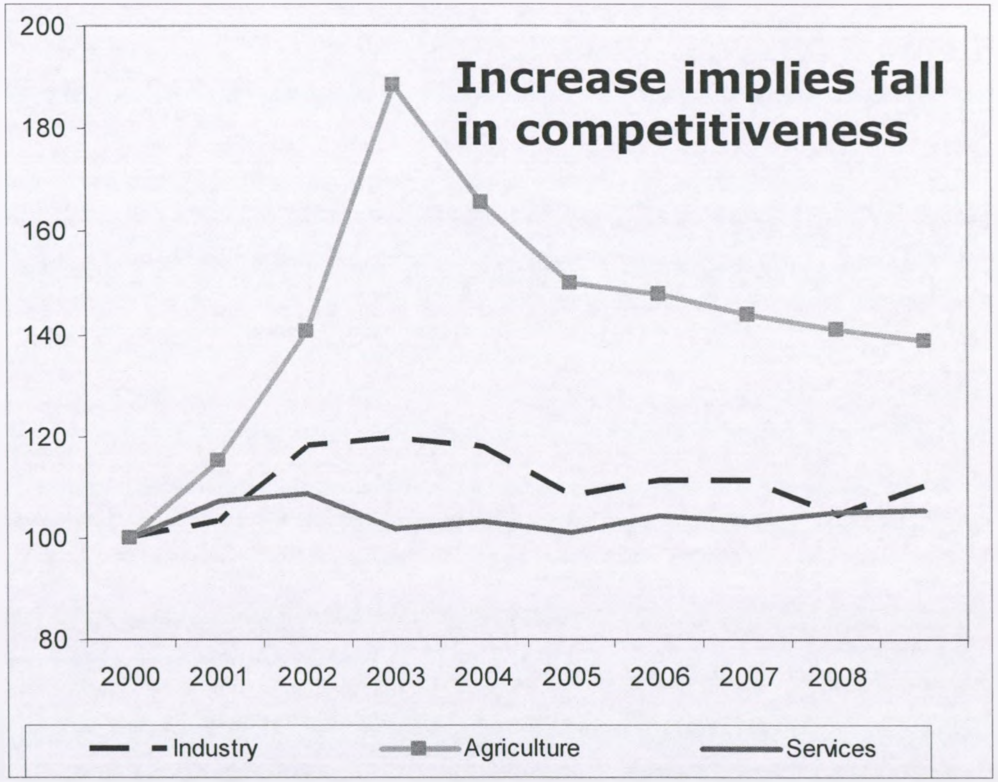


Relative Nominal ULC growth (average y-o-y)		
Country	*Average 1996-2009*	*Average 2001-2009*
Germany	**-1.47**	**0.12**
Ireland	**1.34**	**3.13**
Greece	**1.16**	**1.98**
Spain	**0.88**	**1.99**
Italy	**1.95**	**2.65**
Portugal	**1.38**	**1.64**
Source: European Commission, Ameco database. Series code: PLCDQ		

Factor 9: The loss in competitiveness is mainly in agriculture, less in industry and service sector

- ✓ Competitiveness has deteriorated most in the agricultural sector, where ULCs increased 39% since 2000 relative to trading partners.
- ✓ However, agriculture accounts for only 4% of GDP and 9% of exports.
- ✓ In industrials, competitiveness has deteriorated by 10% since 2000 due to higher productivity growth, which has kept the increase in ULCs lower.
- ✓ We propose **a new indicator** of competitiveness **in the service industry** which compares Greece with its 6 major competitors, such as Italy, Spain, Turkey, Cyprus, Croatia and Portugal.
- ✓ Measured against its major competitors, Greece's service sector competitiveness has declined by 5.5% since 2000. In contrast, standard measures suggest a deterioration of 19% over the same period.

Greece: Unit Labor Cost relative to trading partners

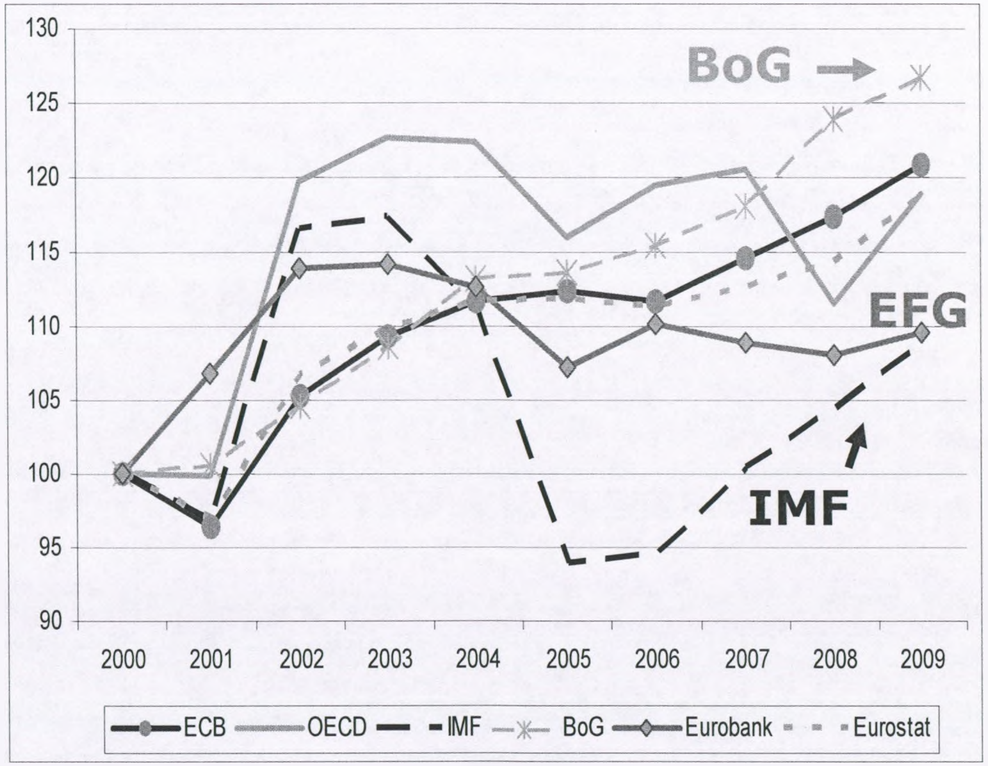


- ❖ Competitiveness indices of industry and agriculture are based on Unit Labor Cost relative to 12 major trading partners.
- ❖ Competitiveness of service sector is based on Unit Labor Costs relative to 6 major competitor countries.

Factor 9: Our overall index suggests that competitiveness of the Greek economy has deteriorated by 10% since 2000

- ✓ The weighted average (weights proportional to contribution in Greek exports in 2000) of the industrial, agricultural and service sector competitiveness indicators is the **Eurobank Competitiveness Index**.
- ✓ The EFG index is a proxy of competitiveness of tradable goods and services against the major competitors of Greek exporters.
- ✓ The EFG index excludes the public sector and the construction sector, which are non-tradeable goods sectors.
- ✓ **The EFG index suggests that competitiveness of Greek exports deteriorated only by 10% since 2000**, compared to a 18%-26% loss suggested by other indices (except IMF index).

Greece: Unit Labor Cost relative to trading partners



- ✓ The need for internal devaluation may be less than common measures of competitiveness suggest.
- ✓ A decline in ULCs of 5-10% over the next two years (relative to trading partners) is perfectly feasible.

V. Summary

- ✓ A weak global recovery in 2010 and lower world growth in the next 5-7 years with strong pressures on international banking
- ✓ Strength of recovery depends on continued provision of central bank liquidity and fiscal stimulus, yet a global fiscal crisis is brewing
- ✓ Current crisis is commencement time for the Euro Area to fix a fiscal mechanism that would ensure its long-term sustainability
- ✓ Current crisis is also commencement time for Greece to push the necessary but neglected reforms and switch to export-led growth
- ✓ The EU/ECB/IMF Program with the €110 bn support has a high chance to succeed as it contains a significant fiscal cushion and is accompanied by strict conditionalities.
- ✓ If growth approaches historical norms, the ratio of Debt – to – GDP can decline to around 70% in 2020. Markets currently do not see:
  - ❖ The expected strong future productivity growth from faster capital accumulation, lower real wages, public sector crowding in, structural reforms and institutions' building, plus a gradual capturing of the underground economy
  - ❖ The strength of the private sector, with low leverage, enormous and liquid private wealth and strong industries like banking

THANK YOU

FOR YOUR ATTENTION