The International Financial Crisis and Greece

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Table of Contents

I.

The Global Financial Crisis Continues

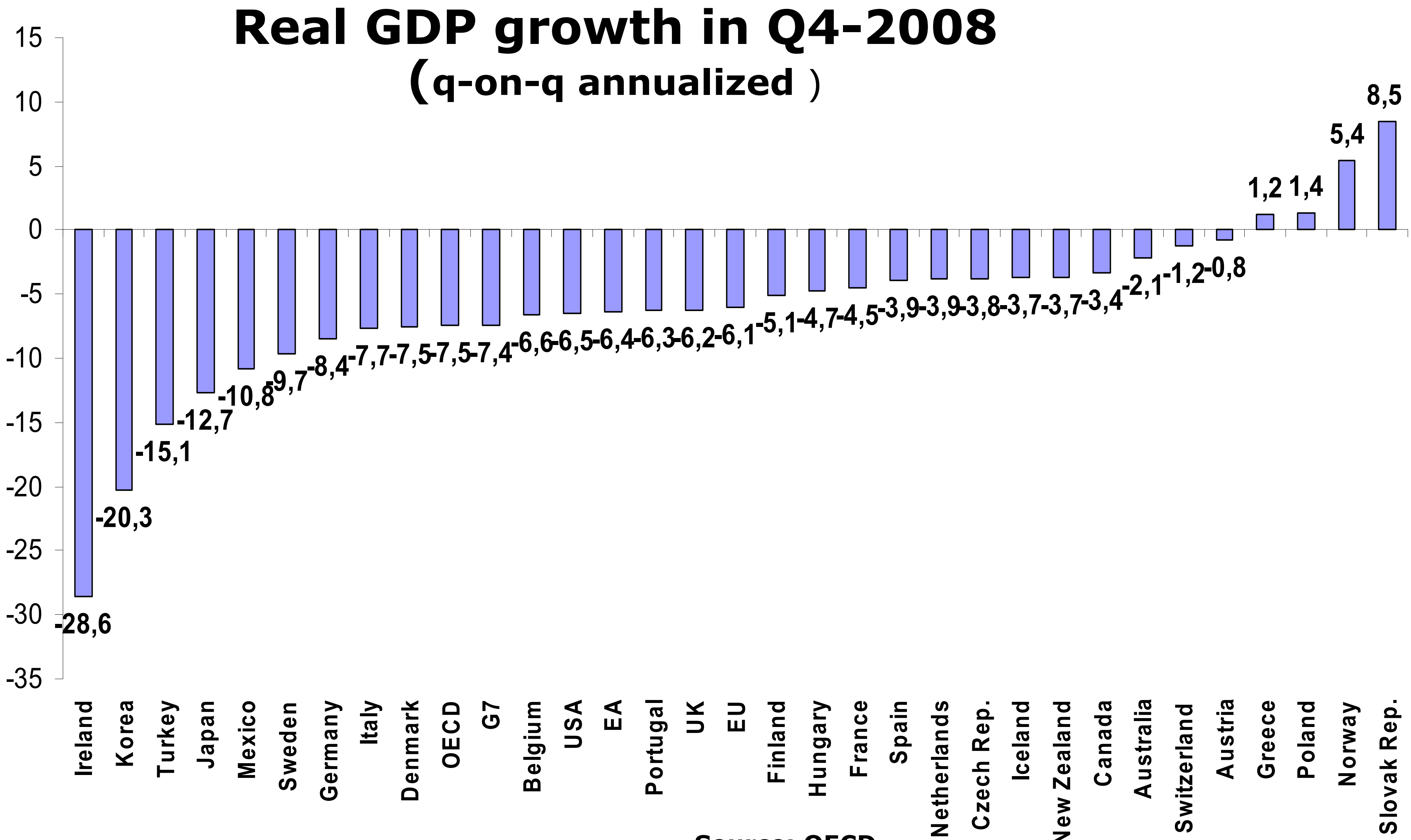
1) A rapid global slowdown
2) It all began in the financial sector

I.1 The global economy is facing the deepest – and probably longest – recession of the post-war period

✓ We expect a significant deceleration in 2009 and a sluggish recovery in 2010

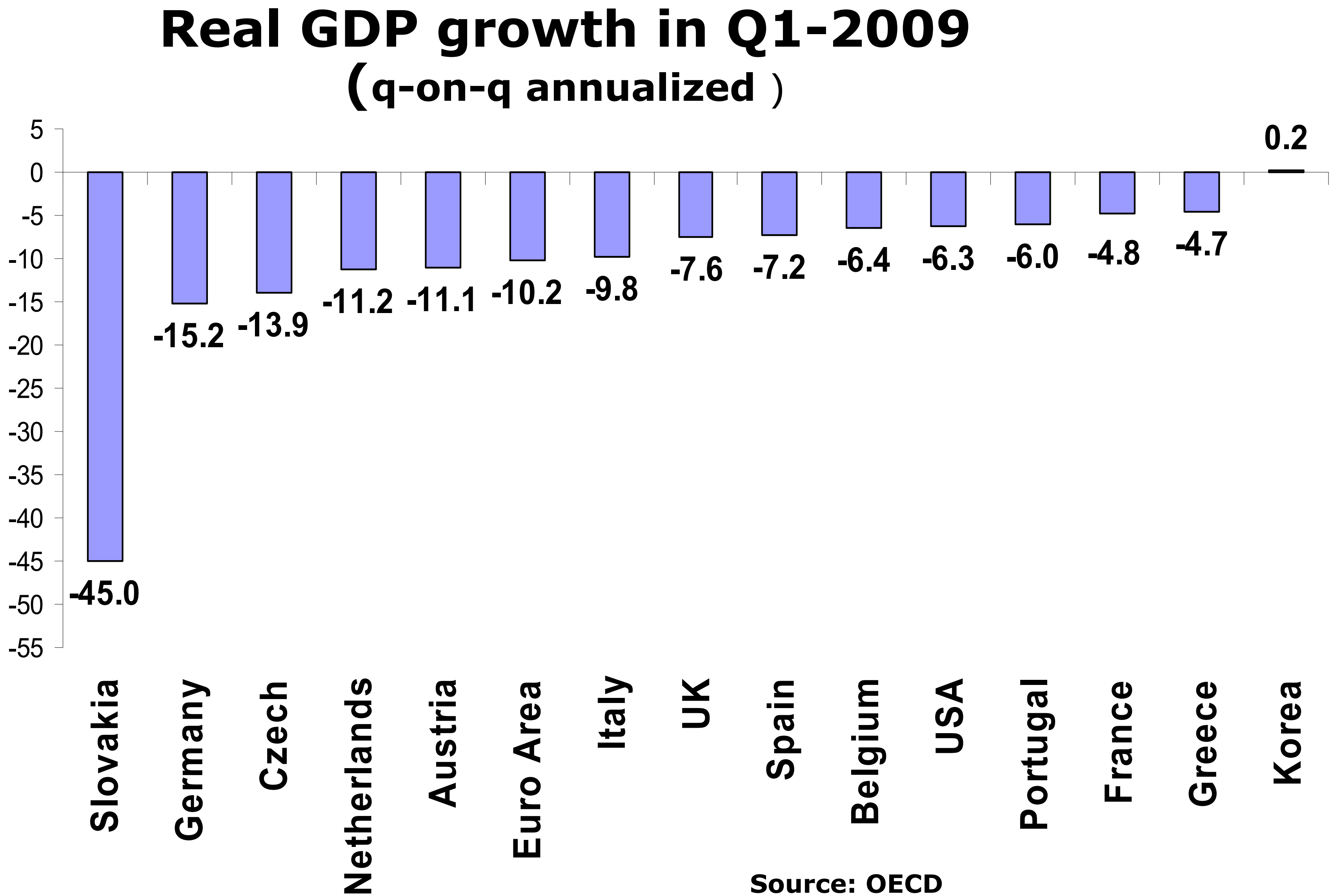
Source: World Bank, IMF

I.1 Fast decline in Q4 2008



Source: OECD

I.1 …that continues into Q1 2009



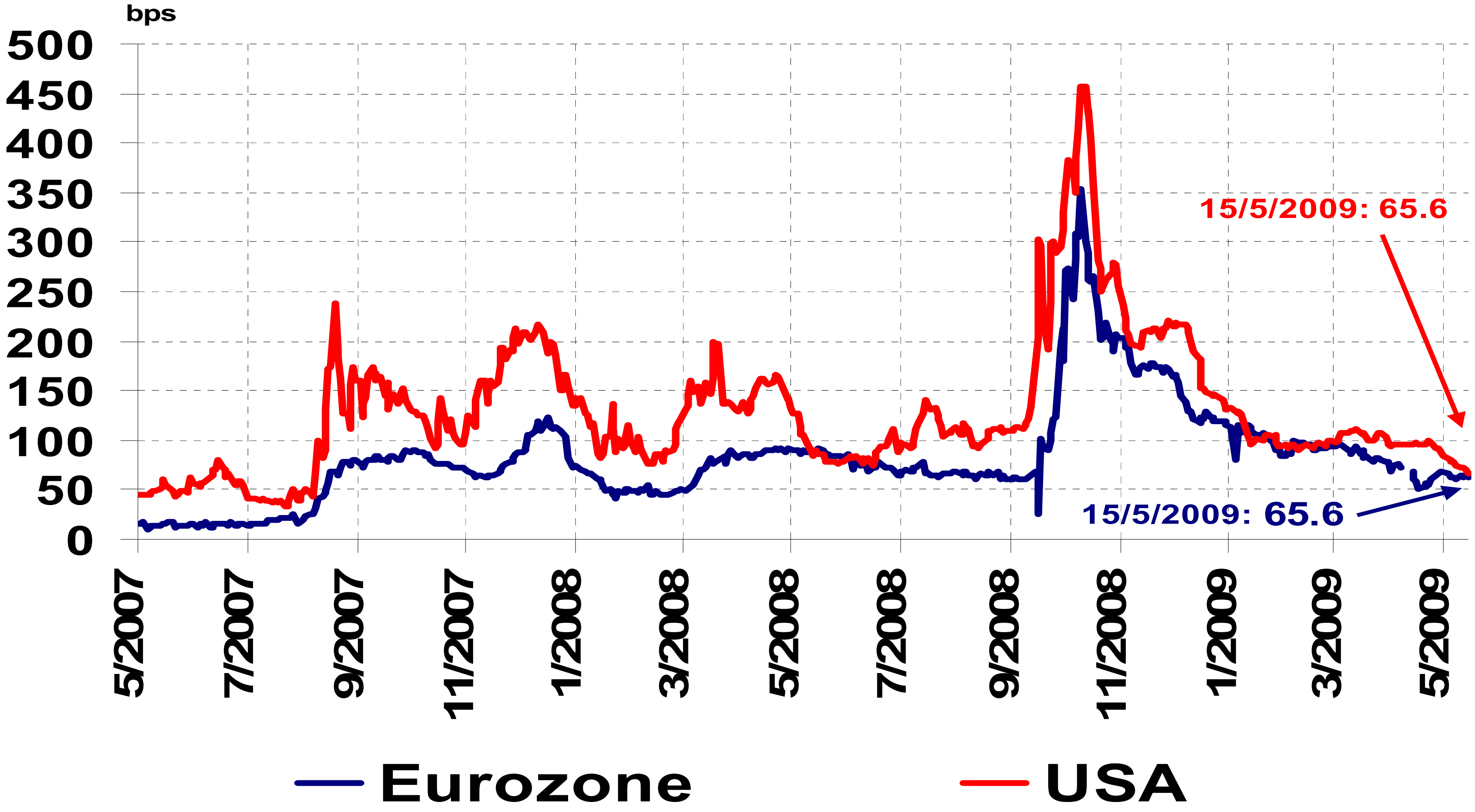
Source: OECD

I.2 It all began in the financial sector

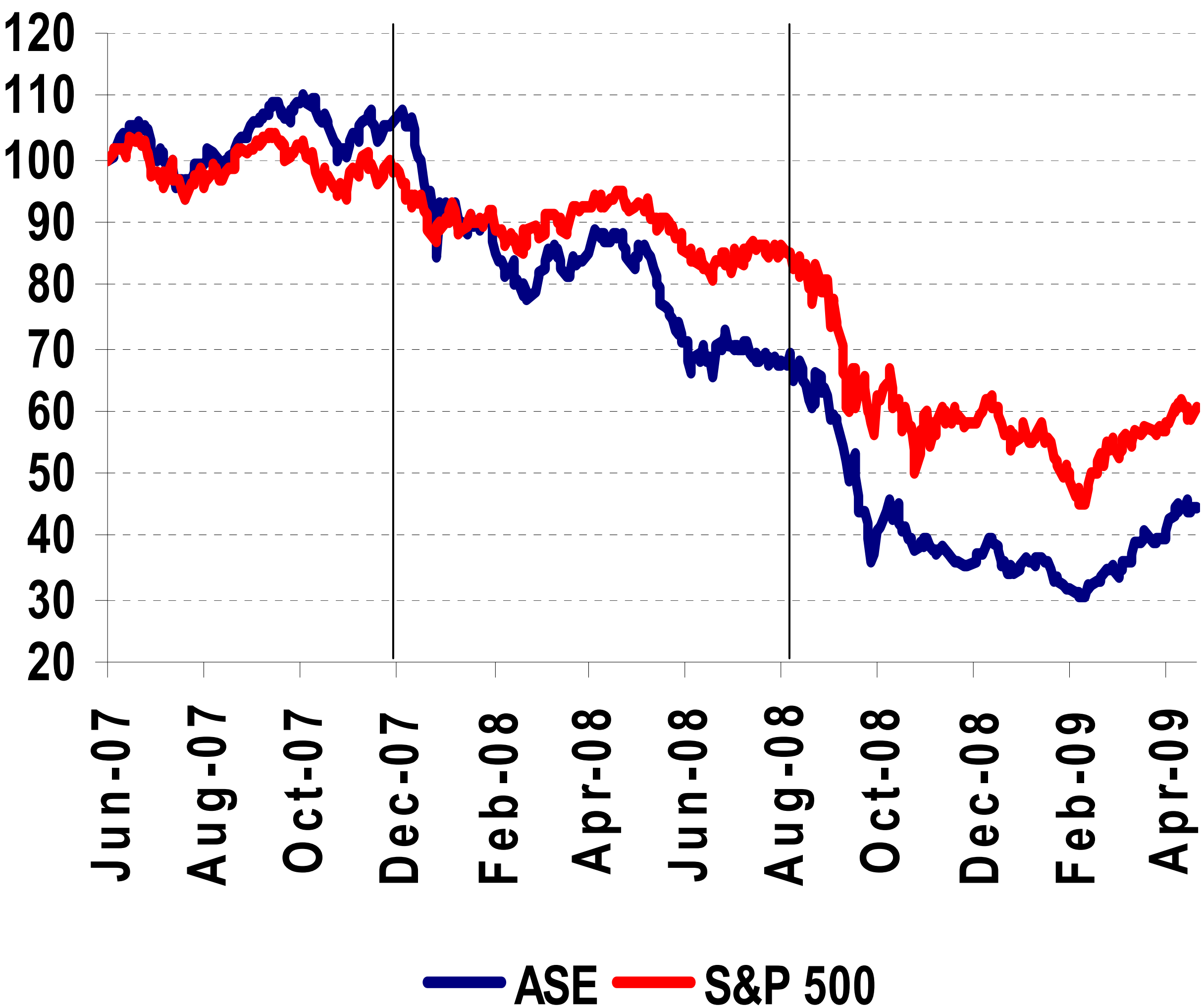
- ✓ The crisis is already 23 months old, growing worse since last September
- ✓ **<u>Many underlying causes</u>**:
  - Large global imbalances ⇨ cheap money or liquidity from surplus countries channeled mainly to US
  - Housing bubbles & the subprime explosion without adequate bank controls on credit risk, e.g. interest rate only loans, etc.
  - Securitization and its new complicated and non-transparent layers in CDOs, CDOs squared, together with new private players outside the reach of Fannie Mae and Fredddie Mac
  - "Greed," i.e. the quest for yield with a simultaneous underestimation of risk, that is, the opposite of the "*Peso Problem*". **This is a recurrent feature of crises and endemic to capitalism**
  - Lax regulation – Abolition of Glass-Steagall Act in 1999, new lenient SEC leverage ratios on investment banks, regulatory arbitrage and SPVs
  - Perverted incentives by Rating Agencies, corporate managers, etc.
  - The new equity culture in traditional banking based on up-front fee generation
  - **Enormous Leverage** based on **short-term** borrowing by FI investing on their own account. This factor is very important in **<u>spreading</u> the crisis**.

I.2 History of the crisis is seen in the rise of short-run quality spreads

- ✓ US TED spread, 3m Eurodollar - 3m Tbill, points to an increase in **default premia** and a **flight to quality**.
- ✓ Same is true in the Euro Area (3m Euribor – 3m Euro Area Tbills).
- ✓ Spreads led to an increase in household and corporate lending rates in 2008, which was cushioned by the decline in Central Bank intervention rates



I.2 Stock markets appear to vote for an end of the crisis – Are they right?



- ✓ Stock markets became aware of the crisis in Jan. 2008
- ✓ Post-Lehman fear & panic (Sept. 2008)
- ✓ Since Mid-March 2009 a bullish rally: Sign of **decline in fear** (risk premia) rather than a forecast of fast recovery

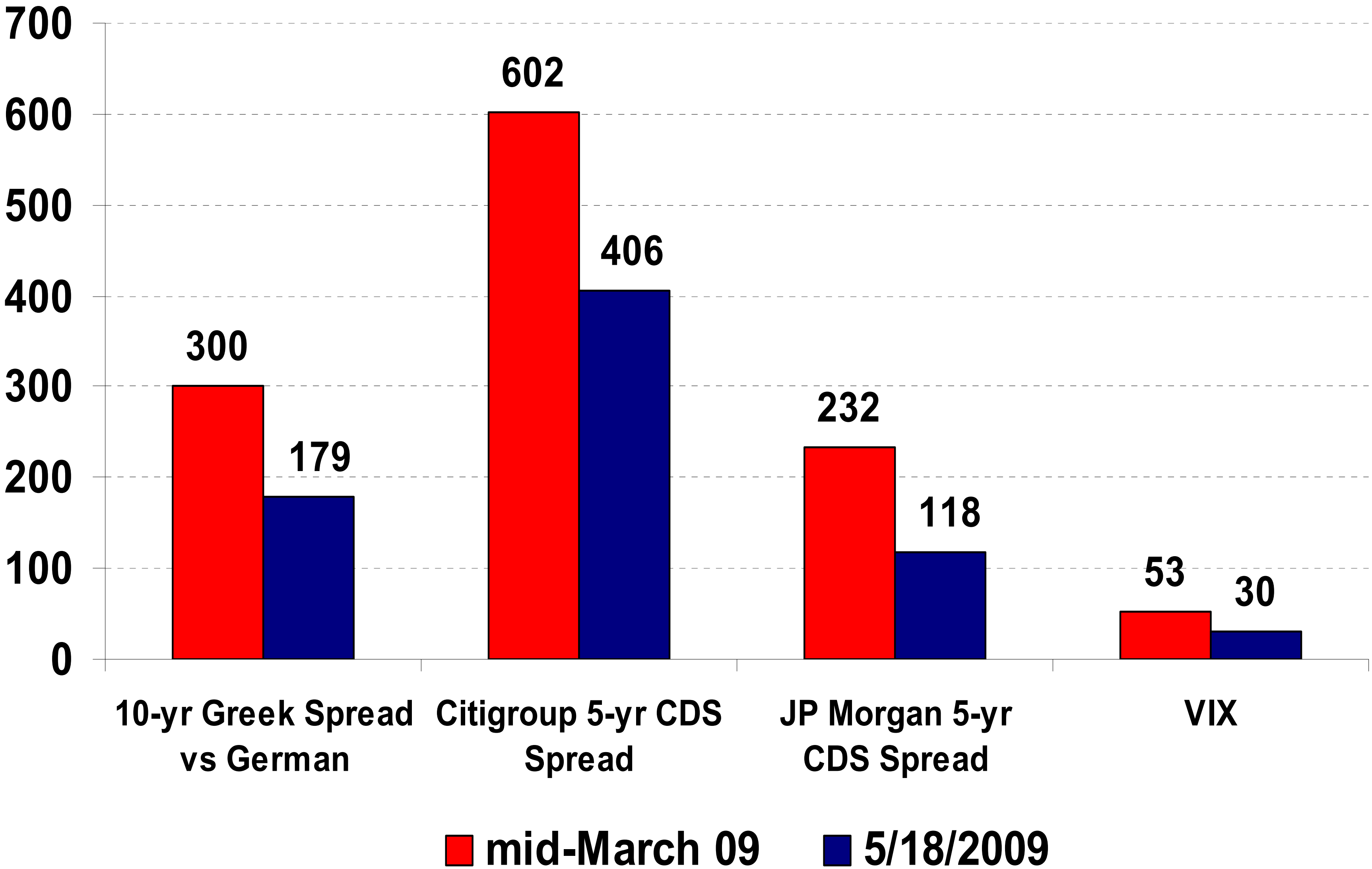
II.
Open Questions for the Future

1) Is the financial stress over?
2) Will global growth resume soon?
3) Should we brace for tighter regulations and the return of government interventionist policies?

II.1 The financial stress is far from over

- ✓ Financial spreads have shrunk but still remain large, hence fear and risk aversion are still present
- ✓ Liquidity normalizes but not fully yet
- ✓ NPLs will rise with a delay as the recession progresses, extending the financial stress forward
- ✓ US stress tests have taken out a large part of the uncertainty from the market, but have not eliminated it
- ✓ No European stress tests yet
- ✓ Bank revenues not as high as before, hence bank losses from asset write downs would not be covered quickly
- ✓ Will there be another negative surprise as in September 2008?

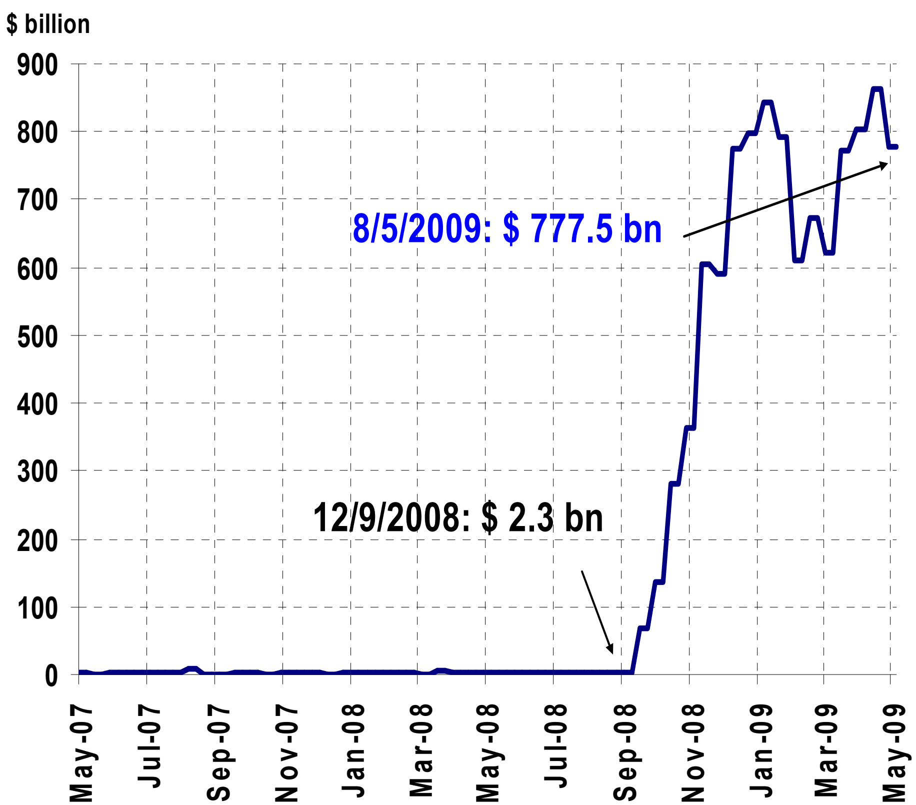
II.1 Risk aversion: Down but not out



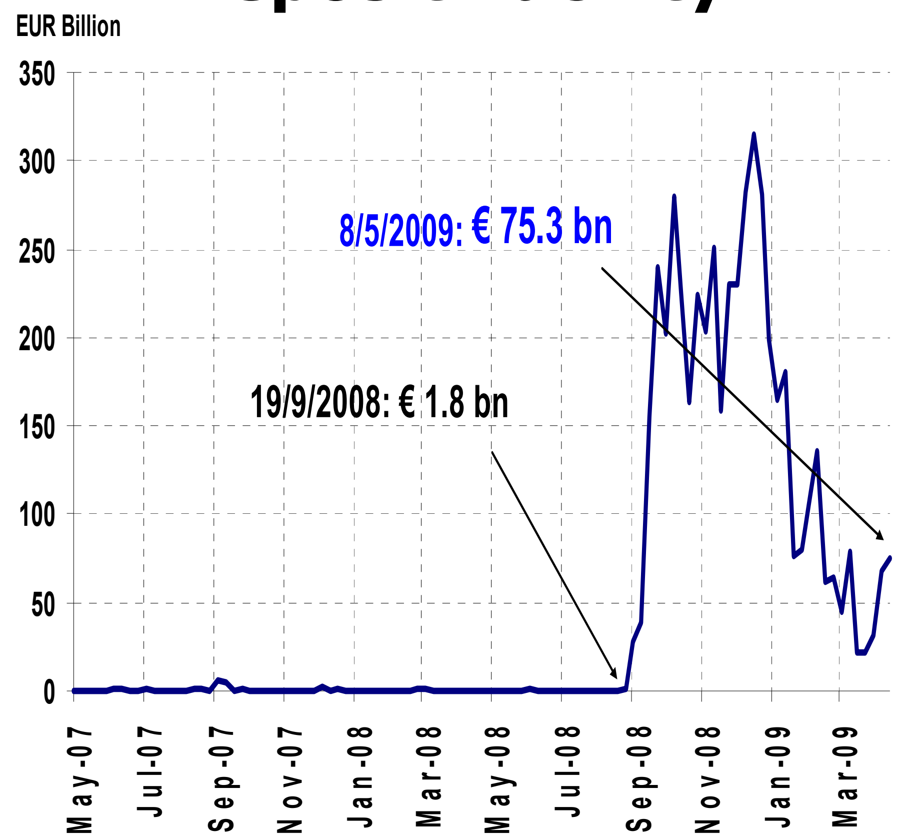
Source: Bloomberg

II.1 Liquidity normalizes, but not fully

USA
Excess Reserves



Euro Area
Deposit Facility



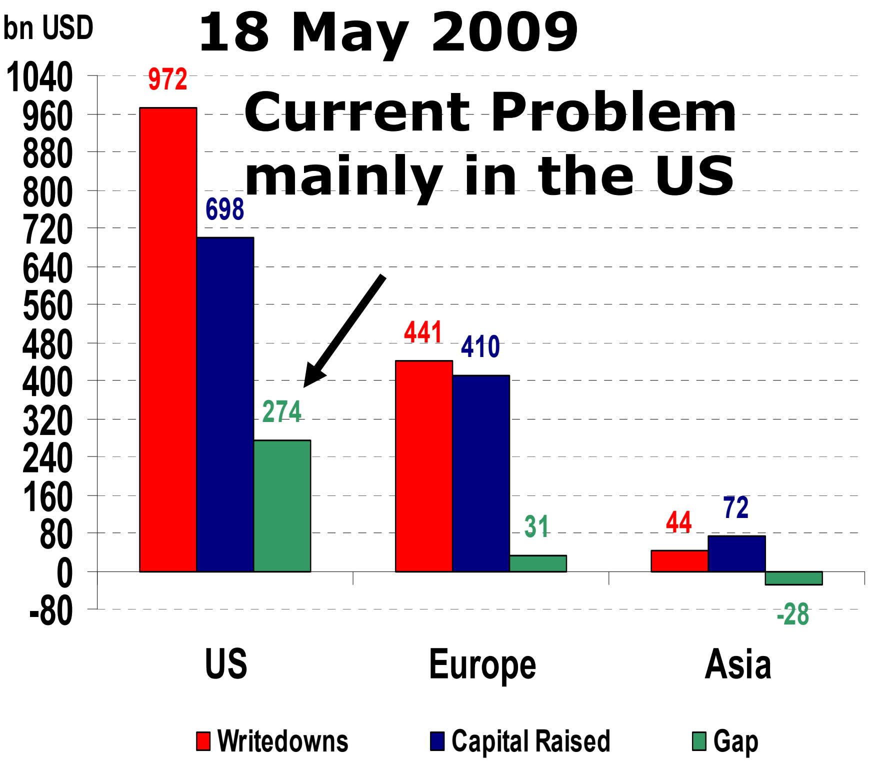
✓ **Post-September 2008, US & European banks are hoarding cash as counter-party risk rises**

II.1 FI Insolvency: The biggest global risk

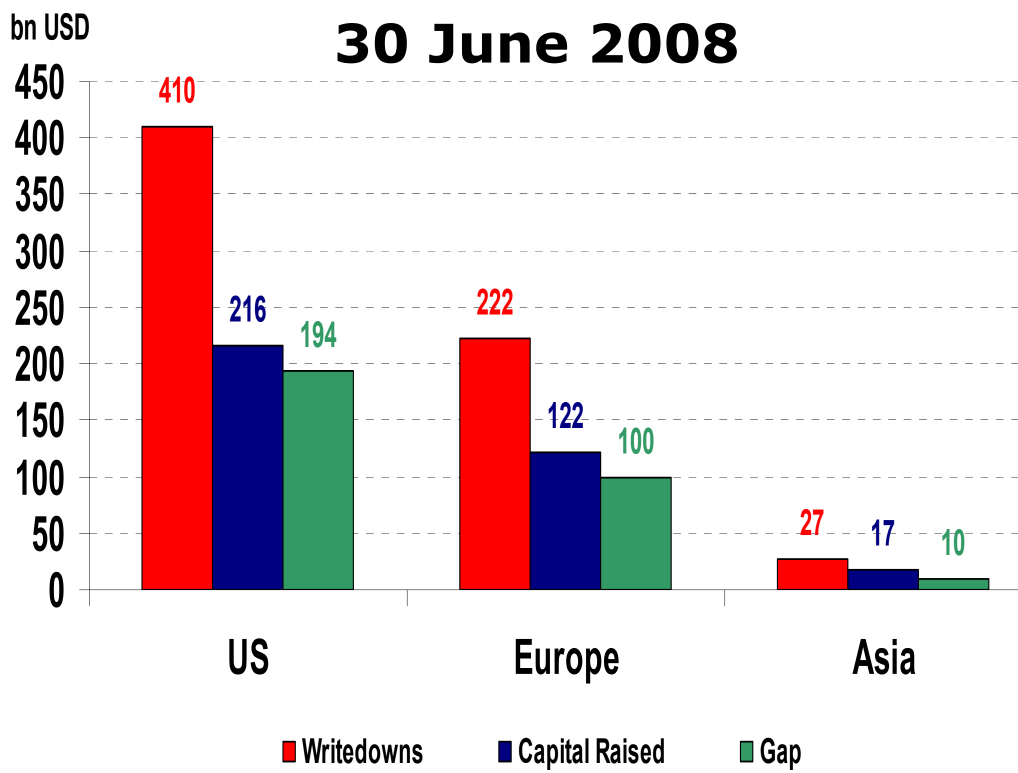
✓ **IMF** estimates that total global write-downs will reach **$4.1 trillion** at end-2010, $2.7 in USA, $1.2 in Europe, $0.2 in Japan

All Financials*

Total Write-downs: $ 1456.4
Total Capital Raised: $ 1179.9
Total Gap: $ 276.5



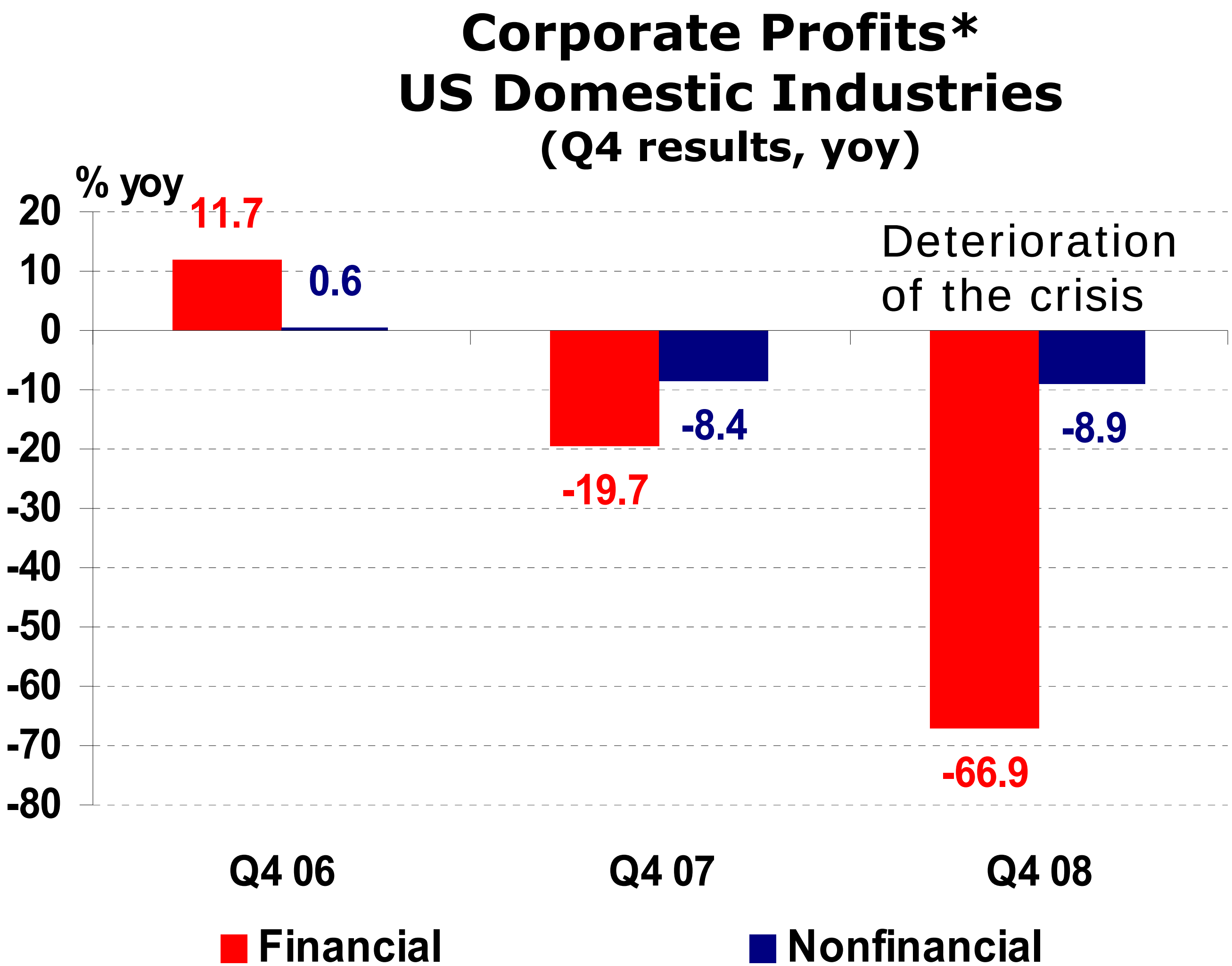
Total Writedowns: $ 658.5
Total Capital Raised: $ 355.3
Total Gap: $ 303.2



* Banks/Brokers, Insurers, GSEsx

Source: Bloomberg

II.1 FI profits deteriorate



- ✓ Asset losses affect the Income Statement
- ✓ Effort to hide losses by dressing up the Balance Sheet is no longer feasible as the crisis prolongs for 23 months

Source: US Department of Commerce, Bureau of Economic Analysis, National Economic Accounts

II.1 The removal of toxic assets

Public-Private Partnership Investment Program → \$500 bn - \$1 tril

✓ Using **\$75** to **\$100 bn** in **TARP** capital (of its \$700 bn), is designed to attract private capital to generate \$500 bn to \$1,000 bn of purchasing power in order to buy eligible legacy assets from participating financial institutions in partnership with the FDIC, the Federal Reserve and the Treasury.

<u>Sample Investment Under the Legacy Loans Program</u>

Step 1: A bank seeks to divest a pool of residential mortgages of **\$100** face value

Step 2: FDIC determines whether or not to leverage the pool at a **6 - to - 1** debt-to-equity ratio.

Step 3: FDIC auctions the pool to several private sector bidders. The highest bid – in this example, **\$84** – would be the winner and forms a Public-Private Investment Fund to purchase the pool of mortgages.

Step 4: Of this \$84 purchase price, the FDIC provides guarantees for **\$72** of financing, leaving **\$12** of equity.

Step 5: The Treasury then provides 50% of the equity funding required on a side-by-side basis with the investor. In this example, Treasury invests approximately **\$6**, with the private investor contributing **\$6**.

Step 6: The private investor manages the servicing of the asset pool and the timing of its disposition on an ongoing basis – using asset managers approved and subject to oversight by the FDIC.

Source: US Department of the Treasury

II.1 US stress test results

- ✓ 19 US banks participated, with year-end 2008 assets above $100 bn, with total assets of about $10 trillion, representing 70% of total bank asset size in USA
- ✓ Banks projected credit losses and revenues for 2009-10 under two scenarios

Scenario	2009	2010
Real GDP		
Baseline	-2.0	2.1
Adverse	-3.3	0.5
EFG Forecasts	-2.9	1.3
Unemployment Rate		
Baseline	8.4	8.8
Adverse	8.9	10.3
EFG Forecasts	9.5	10.0
House Prices		
Baseline	-14	-4
Adverse	-22	-7
EFG Forecasts	-23	-7

Criticism: The tests were anything but stressful

Stress Test Results

(Adverse Scenario)

Estimated losses 2009-2010:	$599 bn
Less: losses of Q1-2009 already in capital figures	$ 64 bn
Less: Est. revenues 2009-2010:	$350 bn

Est. need for additional capital buffer:	$185 bn
Less: Planned capital actions and excess Q1 2009 earnings:	$110 bn
	---------
Total capital requirement	$75 bn

II.1 Stress test results: A comparison

	Fed	IMF	Roubini
Expected write-downs by the 19 banks* in 2009-10	$599bn	$385bn	$875bn
Less: Portion already in capital figures (purchase accounting adjustments)	$64.3bn (Fed's stress test results)	$64.3bn (Fed's stress test results)	$64.3bn (Fed's stress test results)
Net write-downs absorbed by the 19 banks 2009-10	$535bn	$321bn	$811bn
Less: Expected net retained earnings 2009-10 for the 19 banks*	$350bn	$210bn	$210bn
Capital that firms need to add to capital buffers to reach the target SCAP capital buffer at the end of 2010	$185bn	$111bn	$601bn
Total capital requirement	**$75bn**	**$0.6bn**	**$491bn**

* Assuming that the 19 banks represent the **70%** of system-wide assets.

✓ Expected write-downs 2009-10: IMF $550bn, Roubini $1250bn

✓ Expected net retained earnings 2009-10 (after taxes & dividends): IMF $300bn

✓ According to Fed's stress test results, planned capital actions and excess Q1 09 earnings are $110.4bn. The **IMF** projections imply that the **banks have bottomed out**, while real pessimists (**Roubini**) suggest that we are **far from finished** with the solvency crisis at the banks.

Sources: IMF, Federal Reserve, The Brookings Institution, EFG Eurobank

II.2 Serious questions on future growth

This is not the Great Depression or Capitalism's 1989, yet a severe recession that is likely to leave <u>permanent</u> marks

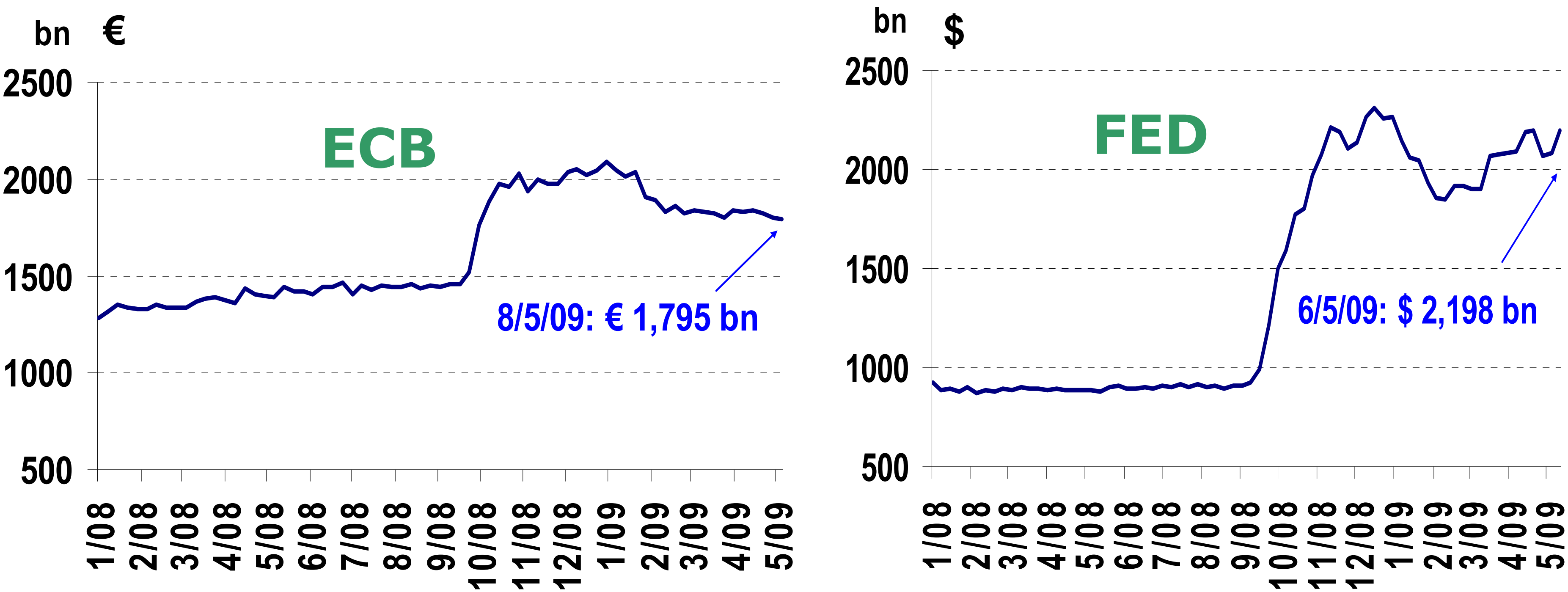
- ✓ Assuming the financial sector stabilizes gradually, still where would future growth originate from? if
  - The US consumer is forced to reduce leverage and increase savings – same is true in other countries with high household indebtness
  - The Chinese consumer is not ready yet
  - India is still a closed economy
  - Europe was never a leader, always following the US, even its economic cycle with a lag
- ✓ Hence, is there a positive probability on the scenario of a decade-long sluggish global growth?
- ✓ More so, if risk premia stay high as fiscal deficits remain high for a long time and central bank interest rates go back up?

The political question: Is there an exit strategy for the state, or will it stay on as a permanent busybody

At the other end: Is there an **inflation risk** originating from the current expansionary monetary policy?

II.2 Risk of future inflation?

Central bank balance sheets



Source: ECB, Federal Reserve

- ✓ Can the FED manage to absorb the liquidity it has released, once recovery arrives?
- ✓ Will interest rates stay low for a long period to support the profitability of banks?
- ✓ Is there a incentive to inflate away the huge debt of the non-financial private *(175% of GDP)* and public *(61% of GDP)* sectors in the US?

II.2 Possible future policy changes

Monetary Policy

- ✓ Will central bank policy change its focus away from targeting exclusively inflation and begin targeting growth as well?
- ✓ Would the elimination of bubbles become a target variable by the authorities?
- ✓ Will monetary and regulatory policy become more coordinated?

Other policies

- ✓ Counter-cyclical capital ratios are likely – Basel 2 is becoming Basel 2.5
- ✓ Stricter rules on manager compensation, on rating agencies, on securitization, etc.
- ✓ G-20 gain political power – Would they shape policy?
- ✓ More resources to the IMF to fight crises
- ✓ Increased awareness that protectionism hurts global growth

II.3 More questions on future regulation

Deeper and broader regulation required. Will the current G-20 talk for tighter future regulation on the international financial system hold its momentum and lead to:

- ✓ An international agreement on common principles across countries regarding regulation that goes beyond the current Basel Accord?
- ✓ Increased capital charges for bank size, i.e. for Bank Holding Companies that become too big?
- ✓ An extra and more transparent restriction on leverage, i.e. on the ratio of equity capital to tangible assets? (besides the Basel Capital Adequacy restrictions, which are risk-based)
- ✓ A renewed separation of commercial banking from investment banking, along the lines of the earlier Glass-Steagall Act, as many argue for? Can it happen?

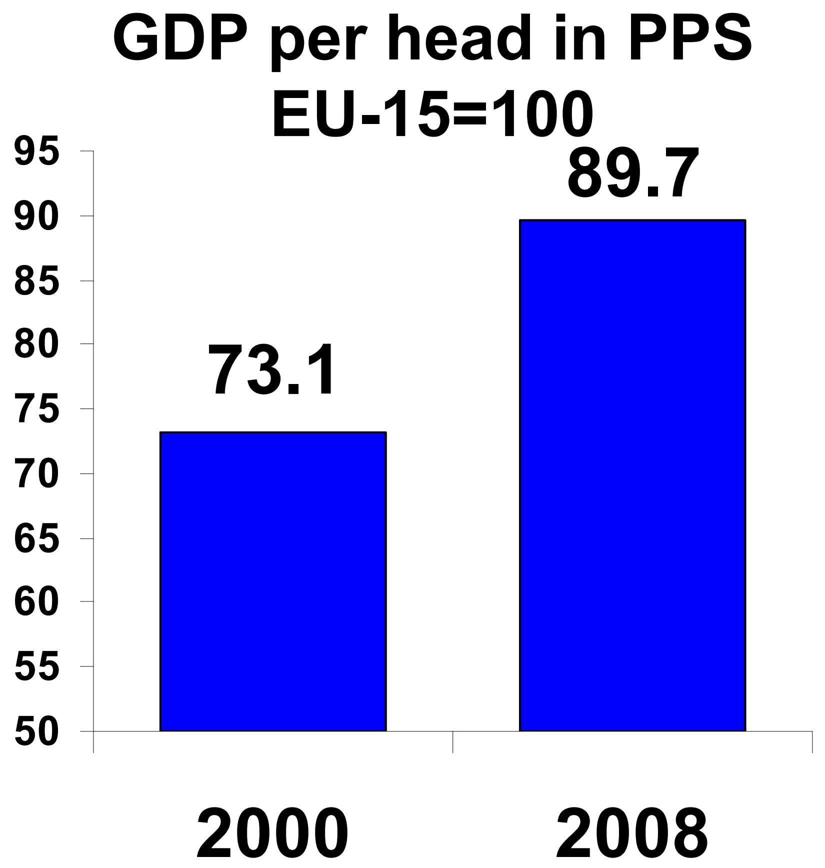
III.

Greece: Opportunity or stagnation and divergence ahead?

1) High living standards and a delayed recession
2) Yet, the significant internal economic imbalances raise the possibility of a long stagnation period ahead

III.1 Greeks enjoy a high standard of living thanks to real convergence

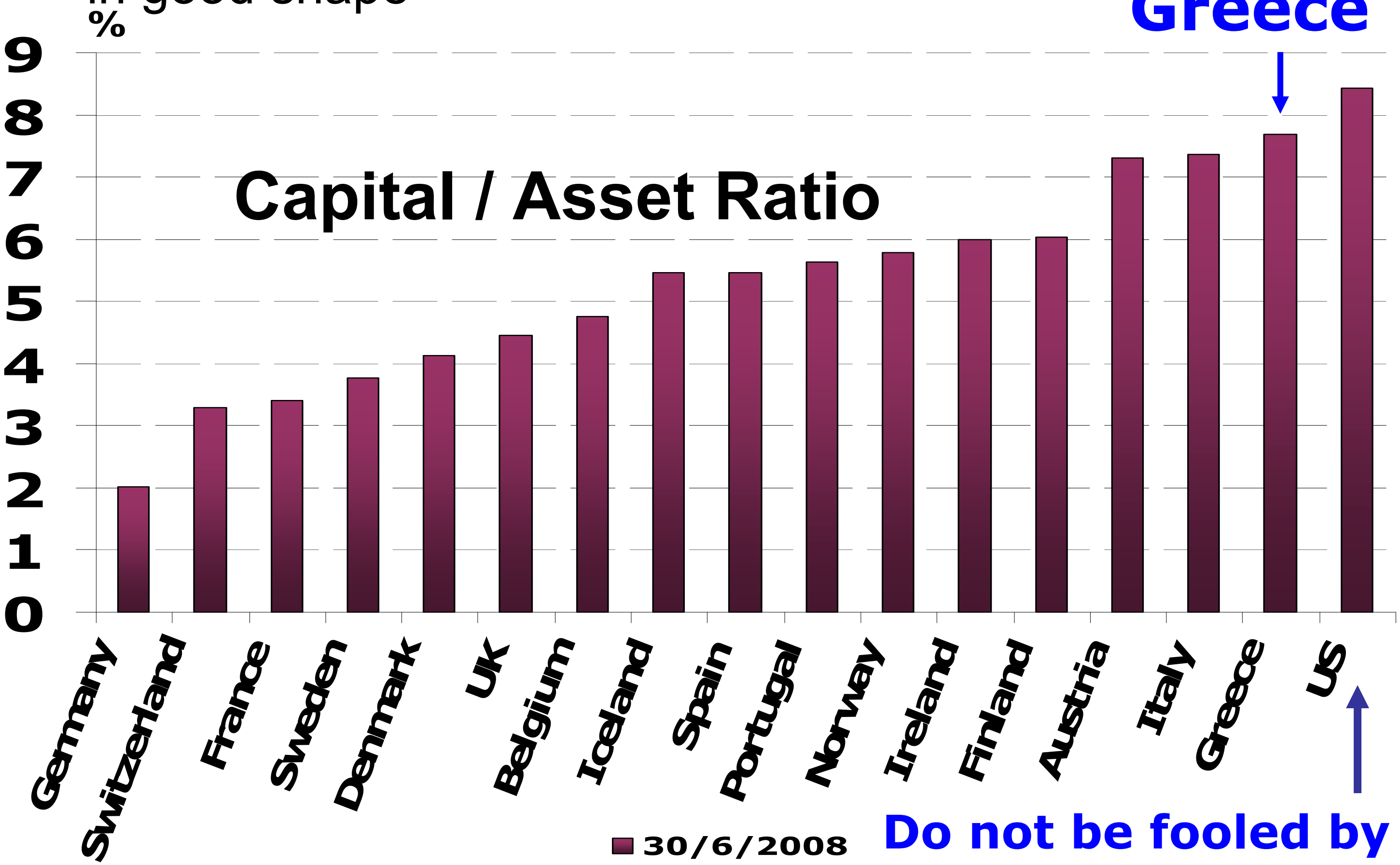
- ✓ According to the UN's **Human Development Index**, Greece ranks 24th among 175 countries
- ✓ HDI is a composite index and captures: (a) life expectancy, (b) $GDP per capita in PPP, (c) knowledge = (2/3) adult literacy + (1/3) gross enrollment
- ✓ Greece still ranks second to last among the EU-15, with Portugal being last.



Yet, Greece's growth model is based on domestic demand and credit expansion

III.1 Greece: The strongest FI capital base in Western Europe

✓ this shock has come from abroad and has found the Greek banks in good shape



✓ **Best FI**: EFG Intern/al **13.52%**

✓ **Worst** FI: DEXIA **1.67%**

Source: Bloomberg

Do not be fooled by high US capital cushion: SPVs excluded from asset size in the US, which makes balance sheets appear small

III.2 Sovereign Credit Ratings deteriorate

	S&P	MOODY'S	FITCH
3/2009	A-	A1	A
12/2008	A	A1	A
2007	A	A1	A
2006	A	A1	A
2005	A	A1	A
2004	A	A1	A
2003	A+	A1	A+
2002	A	A1	A
2001	A	A2	A
2000	A-	A2	A-
1999	A-	A2	BBB+
1998	BBB	Baa1	BBB
1997	BBB-	Baa1	BBB
1996	BBB-	Baa1	BBB-
1995	BBB-	Baa3	BBB-
1994	BBB-	Baa3	
1993	BBB-		

Source: Bloomberg

Rating agencies are worried:

✓ Continuous upgrading from 1996 to 2003:

BBB- → A+

was interrupted in 2004:

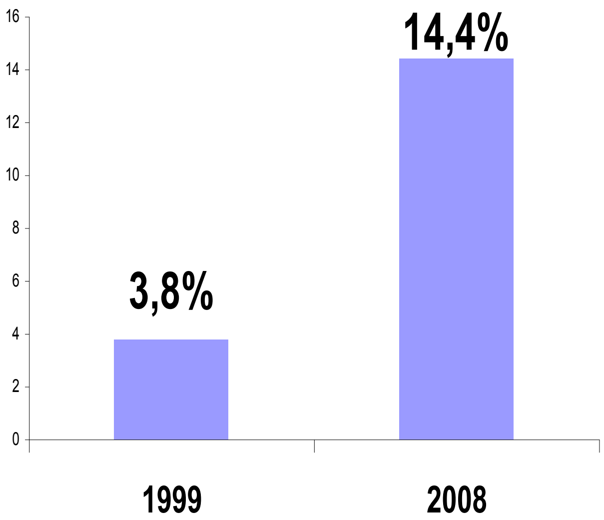
✓ **First** downgrade by S&P, Fitch in 2004

✓ **Second** downgrade, in Jan 2009 by S&P due to the worsening international crisis

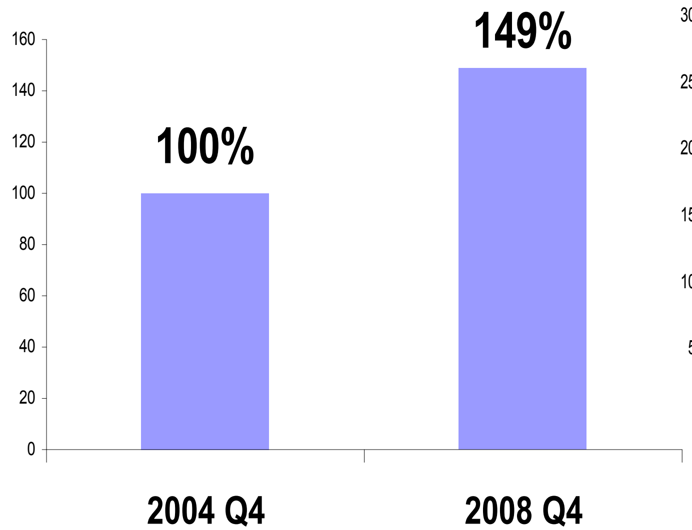
✓ **Another** downgrade by Fitch likely. Fitch already downgraded Greece's outlook to negative from stable on further fiscal deterioration (12/5/2009).

III.2 Imbalances of the Greek economy

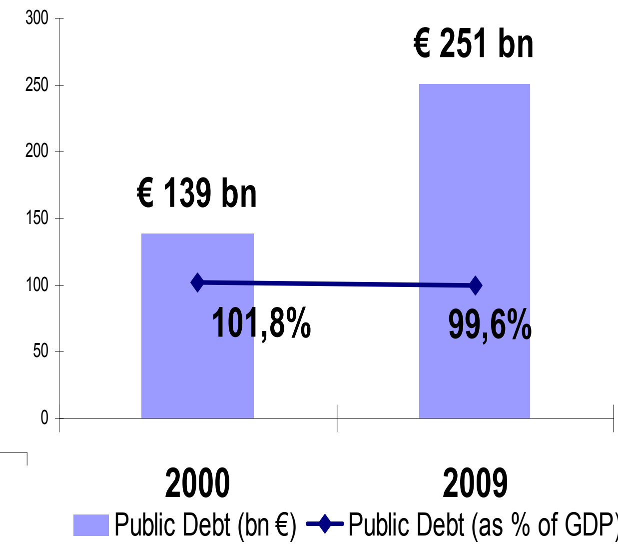
Current Account Deficit



External Debt



Public Debt



i. Competitiveness

Deteriorating, e.g. Current Account Deficit more than tripled since 1999, while prices and costs ↑ relative to trading partners ($REER_{CPI}$: 14%, $REER_{ULC}$: 28.2%) → Gross External Debt ↑ from 100% of GDP in 2004 to 149% in 2008.

ii. A large and ineffective public sector

- ✓ Public debt has soared from €139 bn in 2000 to €251 bn in 2009 (*Official projections*) i.e. from 101.8% of GDP to 99.6% of GDP
- ✓ General Government deficit fell under the 3% of GDP limit only once (2006 2.8%).

III.2 Aging population & pressures on pensions and debt

GREECE

	2005	2010	2015	2025	2050
Health Expenditure (% GDP)	5.1	5.4	5.5	5.7	6.8
Education Expenditure (% GDP)	3.4	3.1	2.9	3.0	3.1
% of older employees (55 – 64)	10.9	12.0	13.6	17.3	17.4
Old-age Dependency Ratio	26.8	28.0	30.3	35.8	60.4
	2007	**2020**	**2030**	**2040**	**2060**
Pension Expenditure (% GDP)	11.7	13.2	17.1	21.4	24.1

Source: European Commission 2006, SGP 2008-2011

III.2 A new growth model

A new growth model is needed:

- ✓ Different from the present one and export-driven

Active policies enhancing **competitiveness and productivity**,

- ✓ Adopt a multi-year strategy to enhance our comparative advantages and those sectors with potentially strong international demand
- ✓ Improve the quality of factors production, e.g. education, health
- ✓ Implement reforms first on those sectors that are easiest to do, i.e. in the goods and services markets, and not on the labor market
- ✓ Reduce the size and restructure the public sector in order to reverse the fiscal deficits and improve the business environment
- ✓ Reform the pension system to relieve future fiscal pressures
- ✓ Implement reforms in the labor market (enhance elasticity) only after the public sector is run efficiently, so that state supervision works

Long-run imbalances would thus be eradicated

III. Conclusions … for the world

- ✓ The international crisis began outside the traditional banking system but quickly spread due to high leverage
- ✓ We are in the middle of the crisis and the future is still uncertain – look for stabilization in asset prices as an early sign of stability
- ✓ Even after a recovery in 2010, average global growth may decelerate, as long as deleveraging continues, fiscal deficits remain high and/or protectionism expands, external surpluses become a target and competitive devaluations take place …
- ✓ Deeper and broader regulation in the future is the likely outcome, but no single global regulation or regulator
- ✓ The State is likely to play a bigger role, but not as a spender
- ✓ The G-20 have gained political power, representing a relative shift in global GDP towards the developing world and Asia
- ✓ We need a global banking system that will return to its traditional intermediary role and a global economy that will turn to innovation and growth
- ✓ We should ensure society does not ostracize bankers and the corporate sector or the motive for healthy profits, and the best way to do it is to pay prime attention to **distributional issues**
- ✓ We should emphasize policy coordination in a global village and avoid new protectionism in disguise

III. Conclusions … for Greece

- ✓ Recession arrives with a lag, yet markets already focus on the imbalances of the Greek economy and fear the outcome of long-term stagnation
- ✓ Lack of competitiveness and an inefficient public sector generate huge current account and fiscal deficits, while the unwillingness to tackle the pension problem would further worsen income inequalities in the future
- ✓ The probability of a long period of stagnation and divergence is high
- ✓ We need a new model of growth, based on an export oriented economy, less dependent on domestic demand and credit
- ✓ Reforms must begin in those sectors where the cost is small: Adopt a long term plan of enhancing our comparative advantages, increase competition in product and services markets with more efficient supervision, a better educational system with a different mentality, a more efficient health system, reduced bureaucracy, a revamped state revenue collection system, restructured state expenditures, an overhaul of the pension system
- ✓ There is an awakening of the public and politicians to the imbalances, hence substantive reforms have a chance

THANK YOU FOR YOUR ATTENTION!!

My thanks to the Research department of Eurobank EFG for able research assistance and support

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