Greece and the Eurozone Financial Crisis 2008 – 2015

Puspa D. Amri*
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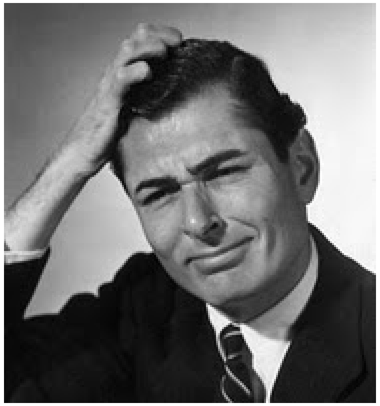
Image source: *The Economist*

**This presentation is a working document that serves to introduce interested readers to the financial crises in Greece and the Eurozone. I thank Brett Kocher for stimulating discussions. All views and errors are mine.*

Background

- Greece — undergoing severe financial crises and a recession over the past 5 years — is on the hook for over **€ 240 bn.** of government debt (Reuters 2015).
  - On June 30th 2015, for the first time in history, a government of an advanced economy failed to honor its obligation when it was due.
  - Specifically, Greece failed to make a required **€1.6bn** installment payment to the International Monetary Fund (IMF).
    - Financial markets in Europe and worldwide has been tense, to say the least.
    - In a July 5 referéndum, Greek citizens voted to reject stricter fiscal conditions imposed by Greece’s creditors.

240 billion Euros is a lot of money..



Does this mean Greece is bankrupt?

Does this mean Greece will leave the Eurozone (#Grexit)?

Why is the IMF involved? What does Germany seem to be calling all the shots?

What did Greece do *before* to need so much money *now*?

What we'll discuss today (1)

- *Part one*: how did we get here?
- To understand the complete picture, three phases of the crises will be discussed:
  - **Phase 1: 2007 – 2009.** Europe-wide banking crisis and recession, a spillover from the U.S. subprime crisis.
  - **Phase 2: 2009 – mid 2014.** Debt Crisis in Greece, followed by Portugal, Ireland, Italy, and Spain. Massive bail-out by Eurozone governments on a tight set of conditions (austerity).
  - **Phase 3: Mid 2014 – July 2015.** Greek citizens' unrest, an incoming left-wing party and (so far) failed creditor-debtor negotiation and Greek default.

What we'll discuss today (2)

- Part *two*: where were the cracks in the system?
- These were a combination of 3 factors:
  1. A flawed institutional design in the Eurozone single currency system.
  2. German, French, and American lenders (i.e., banks) over-lent, thus financing Greek consumption binge.
  3. Greece public and private citizens over-borrowed on consumption goods and did little to build competitiveness.

What this discussion is *not* about

- It is not a kind of “10 things that you must know about the Eurozone” list.
  - It won’t cover ***<u>all</u>*** the aspects of the 5-year long crises.
  - It is not a prediction of what is going to happen next, although I’m certainly open to discussing this with interested readers.

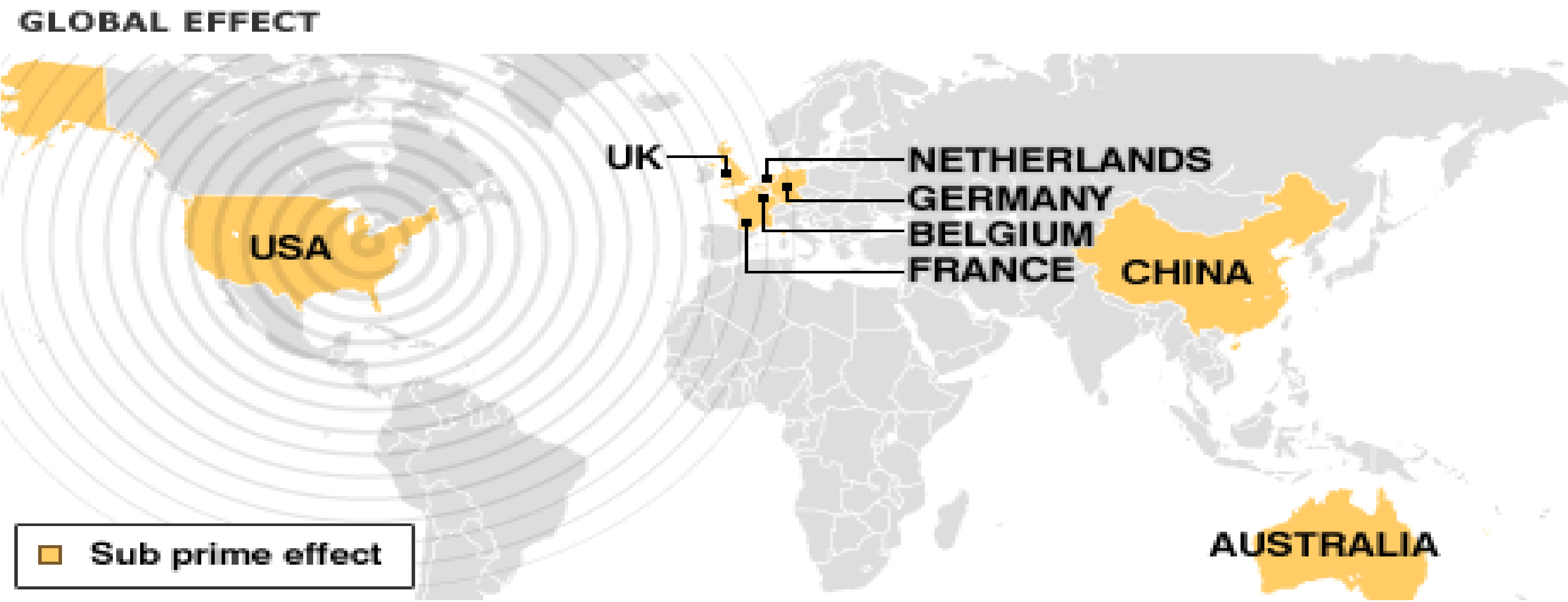
I. HOW DID WE GET HERE?

The three phases of the Eurozone Crisis, 2008 – 15

Phase 1 — European-wide banking crisis, mid 2007 – 08

- From 2007 to 2009, most of the European economies suffered banking crises, followed by recessions.
  - Among the first European banks to be hit:
    - BNP Paribas - a French bank declared trouble (2007)
    - IKB and Landesbank Sachsen - German banks (2007)
    - Northern Rock, Royal Bank of Scotland - British banks (2007-08).
    - Dexia – Belgium/Luxembourg, 2008.
- What was the proximate cause?

The U.S. “exported” its banking crisis



- The crisis spread to Europe through the direct exposure of European financial firms to U.S. mortgage-related financial products.

Source: news.bbc.co.uk

The U.S. subprime crisis of 2007 in a nutshell

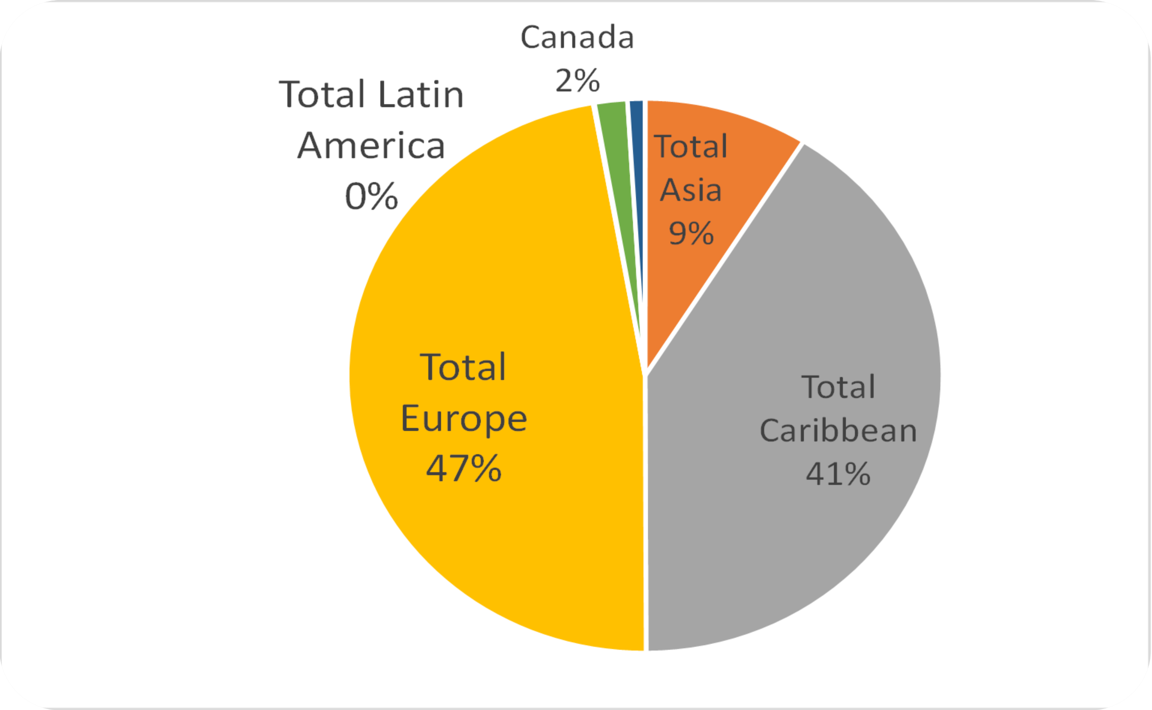
- In the pre-crisis years (2002-06), highly leveraged U.S. financial institutions heavily invested in a class of assets backed by subprime mortgage loans (subprime MBS).
- House price kept rising --> no problem for borrowers.
- As soon as house prices tumbled (mid 2006), all borrowers had trouble paying. Subprime ones in particular.
- Default --> fall in value of MBS --> banks suffer losses.
- Highly leveraged means that these financial institutions borrowed a lot of money (short-term) to purchase MBS in the first place.
- Unable to pay their short-term obligations, banks got into trouble. This is pretty much true for every bank that held American subprime mortgages.

How did the U.S. export its crisis to Europe?

- It turns out, a good amount of these subprime MBS were held by European banks.
- According to data from the Federal Reserve, 24% of total outstanding U.S. corporate debt in 2007 was held by foreigners.
- Over 40% of U.S. corporate mortgage-backed securities - a portion of corporate debt and the source of the problem - were held by European countries.

How did the U.S. export its financial crisis to Europe?

Foreign holdings of U.S. Mortgage-Backed Securities, June 30, 2007



Source: Treasury Capital International, 2008

Top 10 Foreign Holders of U.S. Mortgage-backed Securities, June 2007

Nr.	Country	(Millions of USD)
1	Cayman Islands (Offshore Financial Center)	163,564
2	United Kingdom	45,591
3	Germany	30,598
4	Ireland	28,483
5	France	24,348
6	Luxembourg	21,560
7	Netherlands	21,022
8	Bermuda	20,718
9	Japan	16,337
10	Switzerland	11,887

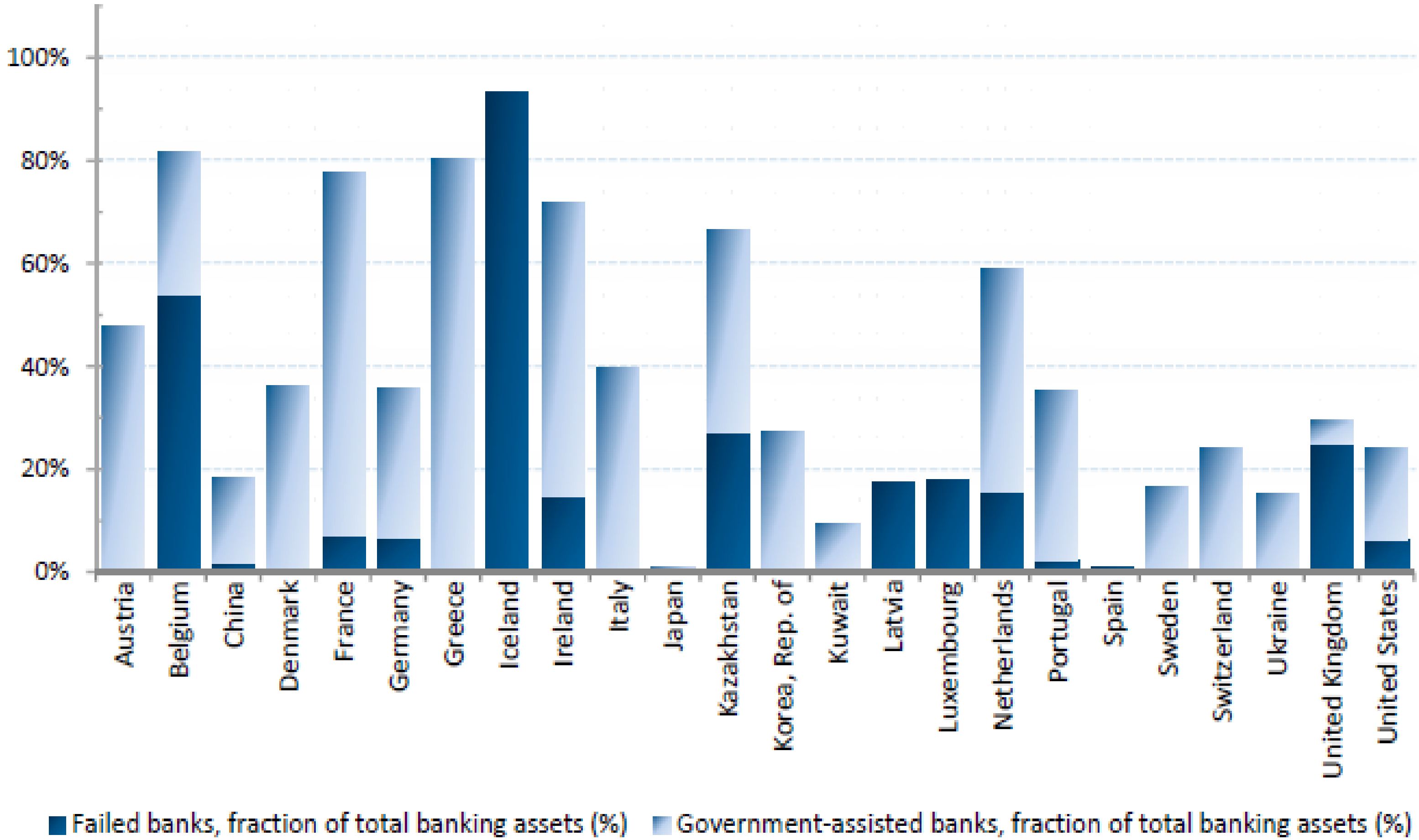
Source: Treasury Capital International, 2009

What about Greece?

- Ironically, Greek domestic bankers did *not* buy U.S. subprime-backed bonds.
  - Greek banks did suffer relatively minor losses following the negative economic climate in Europe throughout 2007 – 09.
  - As part of Euro-wide actions to stabilize the banking sector, the Bank of Greece guaranteed bank deposits in October 2008 to safeguard the banking system.
  - It actually appears that Greek banks weathered the post-Lehman global financial crisis world quite well in 2008 – 09.

Source: NY Times, Reuters, 2011.

What about Greece? A cross-country comparison of bank failures 2007-2009



Source: Laeven and Valencia (2010)

Summary on Phase 1 (2007-09)

- There were banking crises in major European countries such as UK, Germany, France, Belgium, Ireland, Luxembourg and the Netherlands.
  - No major banking crisis in Greece *yet*.
  - Severe banking crisis in all of the above economies followed by a region-wide recession.
  - All euro area countries recorded negative rates of change in GDP in 2009 (Bank of Greece).
  - The stage was set for a new Eurozone banking and debt crisis, and no longer just individual country episodes.

Phase 2: 2009 – 14. It started with a debt crisis

- The banking crises mentioned earlier led to a severe economic downturn in most of Europe, including Greece.
  - When the Greek economy records weak GDP...
    - State coffers suffer, including Greece's.
    - Greece's reported public debt rose from 106% of GDP in 2006 to 126% of GDP in 2009 (Nelson et al. 2011).

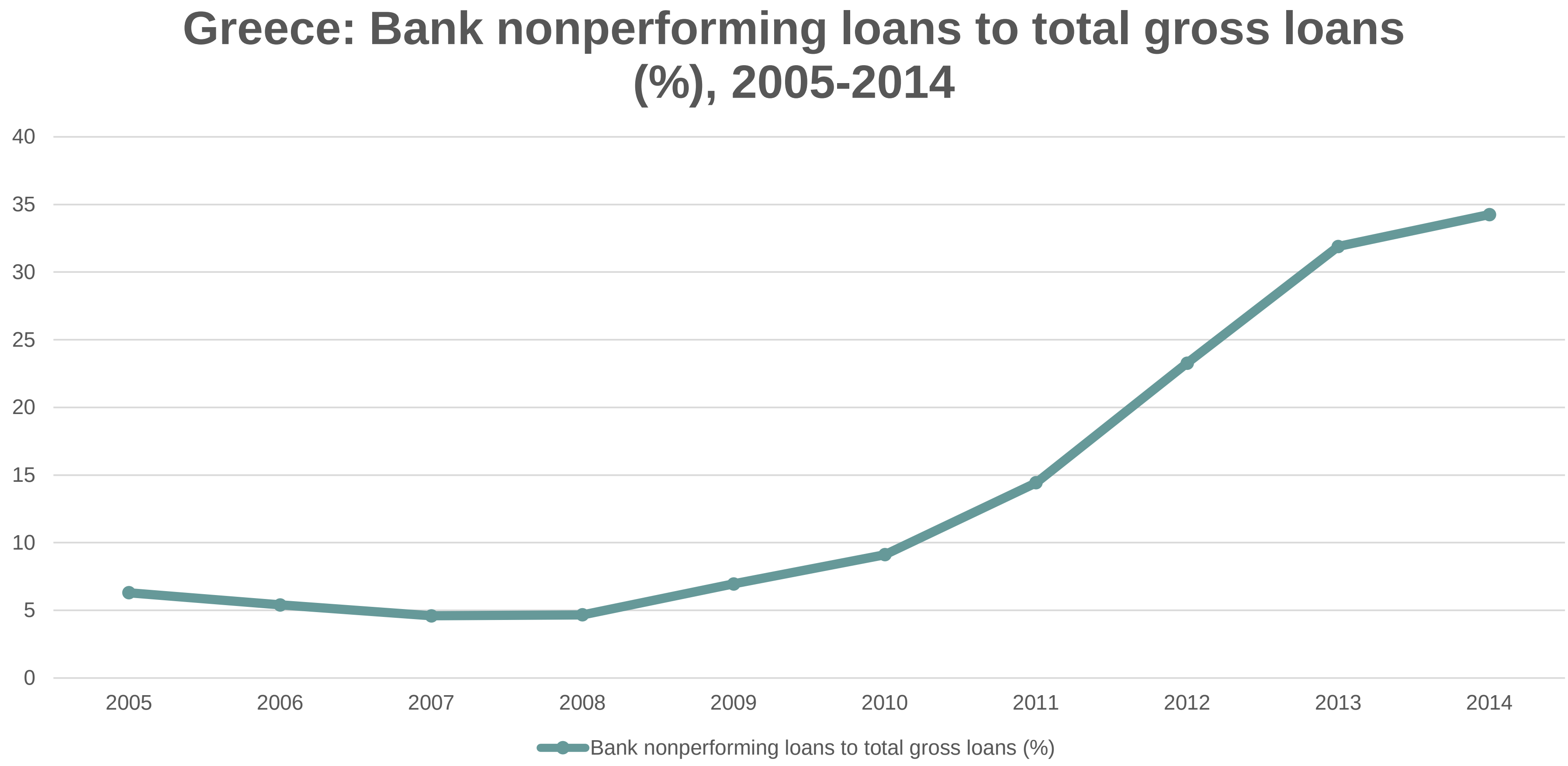
Phase 2: It started with a debt crisis

- Throughout 2008 – 09, the idea that the Greek budget deficit was getting worse was a *known* problem, but few had any idea of its *magnitude*.
  - Not until October 2009, that is.
    - A new incoming finance minister announced that the budget deficit was worse than previously reported.
  - How much more worse?
    - Before Oct 2009, it was estimated to be 3.7%, then revised to 6.6%, then later it was revised to 12.7% (Gibson et al. 2012, Lewis 2011)
    - Oops, that’s more than double the size!

From debt crisis to banking crisis

- Starting around 2011, the debt crisis spilled over to the banking sector.
- Non-performing loans rose from 4.6% in 2008 to 14.4% in 2011 (see next slide's figure).
- Greek banks were in trouble, just like their neighboring country banks were in 2008 – 09.
- A contributor to this crisis is the large holdings of Greek gov't debt by private Greek banks.
    - (Estimated € 48 bn.; source: *NY Times 2011*).
    - Note that two French banks, Credit Agricole and Societe General directly owned troubled Greek banks (Emporiki and Geniki, respectively).

From debt crisis to banking crisis (2)



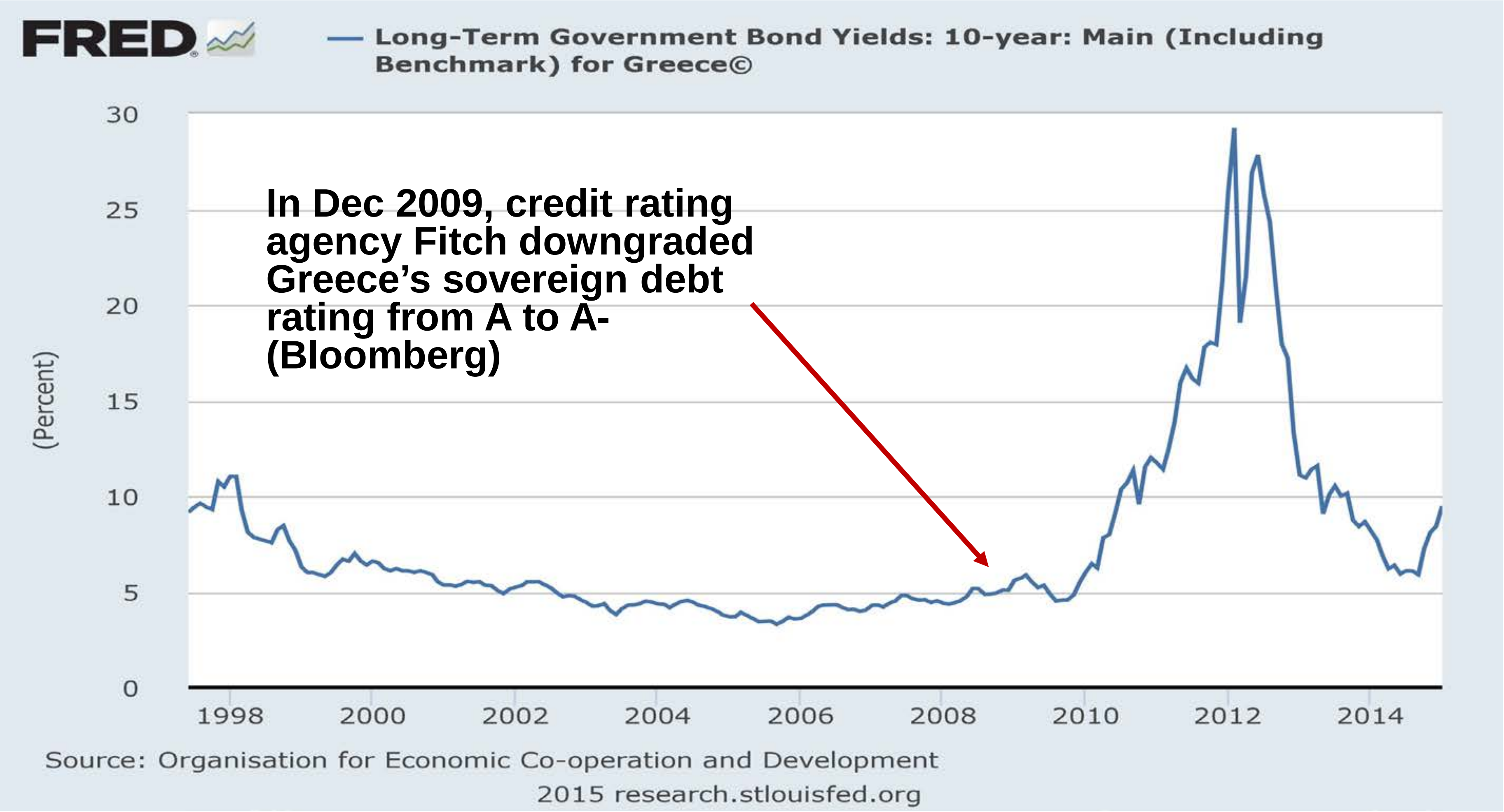
Source: World Development Indicators

Side note: how does one miscalculate a budget balance?

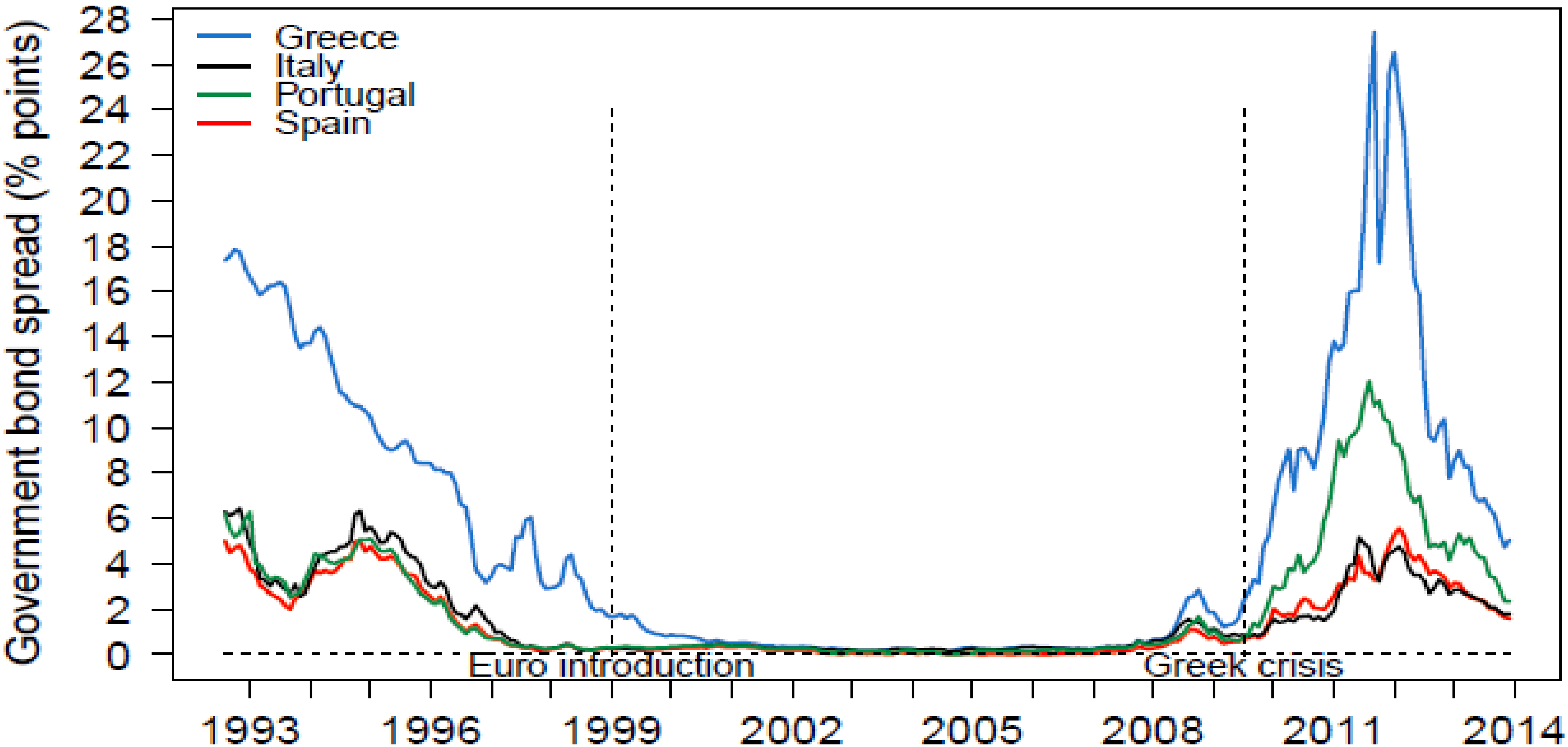
- Unrecorded liabilities
  - A pension debt of a billion dollars per year was not recorded in the government's books.
- Off-the-books job creation programs
  - Leads to under-reported true government spending
- Tax fraud
  - Many self-employed workers allegedly cheated on their taxes.
  - It is estimated that 30-40% of activities that might be subject to income tax are officially unrecorded.

Source: Michael Lewis, *Boomerang* (2011)

Markets reacted to the Oct. 2009 budget announcement



From debt crisis to more debt crisis: Greece to PIGS



Taken from: Kobielarz et al. 2015, http://www.voxeu.org/article/eurozone-debt-bailouts-and-contagion

Summary of Phase 2

- Following the global financial crisis of 2008 – 09, the situation in the Eurozone deteriorated
  - Then newly-elected Papandreou government revealed the existence of massive hidden government deficits, which caused a surge in interest rates on Greek sovereign bonds (Kobielarz et al. 2015)
    - Higher rates --> Greek government had a hard time servicing its debt, and paying routine bills. *Debt crisis*.
    - As Greek gov't. bonds lost value, so did the health of the Greek banks that held these financial instruments. *Banking crisis*.
    - What made it worse: fears of an exit of Greece from the Eurozone (#Grexit) resulted in a spread of fear to other high-deficit countries. *Contagion.*

Bailout and responses, 2010 – 12

- Unable to change their currency and alter monetary policy, the Greek government requested official help from euro-area governments.
    - A bailout deal was orchestrated in May 2010 between the so-called *Troika (*Euro-area governments, the European Central Bank and the IMF), but things did not get any better (see previous slides — spreads continued to rise from 2010-2012).
        - Under the program, euro-area countries provided bilateral loans for a total amount of 80 billion euros.
        - The IMF contributed to the financial package with a 30 billion euro loan (Moschella 2015), though, of course, ***with strings attached***.

Bailout and responses, 2010 – 12

- The bailout program had two key conditions:
  - Cut spending and raise taxes (fiscal tightening)
  - Structural reform: eliminate bottle necks to competitiveness, including eliminate corruption.
    - But this did not do much to solve the problem.
- In March 2012, a second round of bailout was given in the amount of €144.7 bn. from euro-area countries and €28 bn. from the IMF.
  - Also in 2012 (July), the head of European Central Bank Mario Draghi promised to do "whatever it takes" to preserve the Euro.
  - It appeared that the Eurozone was saved, for the time being (see previous figure on spreads).

Source: Moschella (2015)

Greece: Progress on keeping the fiscal spending down

- Some non-negligible progress on cutting spending.
    - Public sector employment declined from dropped by over 25% from 2009 – 14 (source: European Commission, pointed out by Wheelan, 2015).
    - Fiscal deficit has fallen from 15.6 percent of GDP in 2009 to 2.5 percent in 2014 (Source: OECD).
    - Pension age has been raised quite substantially, although many say still not by enough to bring Greek's budget deficit down to a healthy level.
- However, not much progress on streamlining "structural" issues, e.g., competitiveness and corruption.

Such drastic measures of cutting spending made many people unhappy

Image Source; Getty Images

Phase 3: The road to Greek June 30 default & referendum

- By the end of 2014, the stage was set for a leadership turnover.
    - With austerity creating pains, the then coalition government’s position was weakened.
    - Their candidate for president did not pass a majority vote, prompting snap parliamentary elections in Jan 2015.
    - Along came the left-wing party Syriza and its charming PM Alexis Tsipras.
        - From January 2015, how did we get to the Greek default and the July 5 Referendum? See here

With "No" vote, will Greece leave the Eurozone?

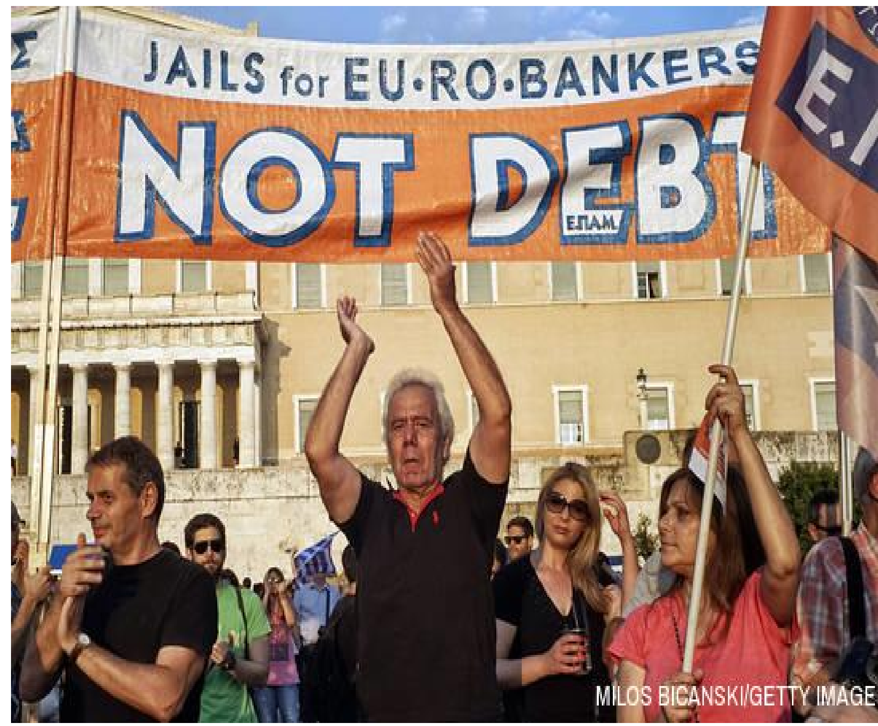
- Maybe yes, maybe no.
  - The first pressing issue is whether Greece will default on a €3.5 bn repayment to the ECB due July 20.
    - Euro-area governments say they will not release more bail-out funds unless Greece comes up with a proposal.
  - Even if Greece does default on its debt there is no legislation requiring its expulsion from the Eurozone, (ECB Vice President: Vitor Constancio).
  - [Update] On July 9th, the Greek government submitted to the Eurogroup a proposal that moves closer toward the kind of austerity measures that the creditors wanted.

II.WHERE ARE THE CRACKS IN THE SYSTEM?

There is heated debate in the media on who is to blame

Is it the borrower's fault?

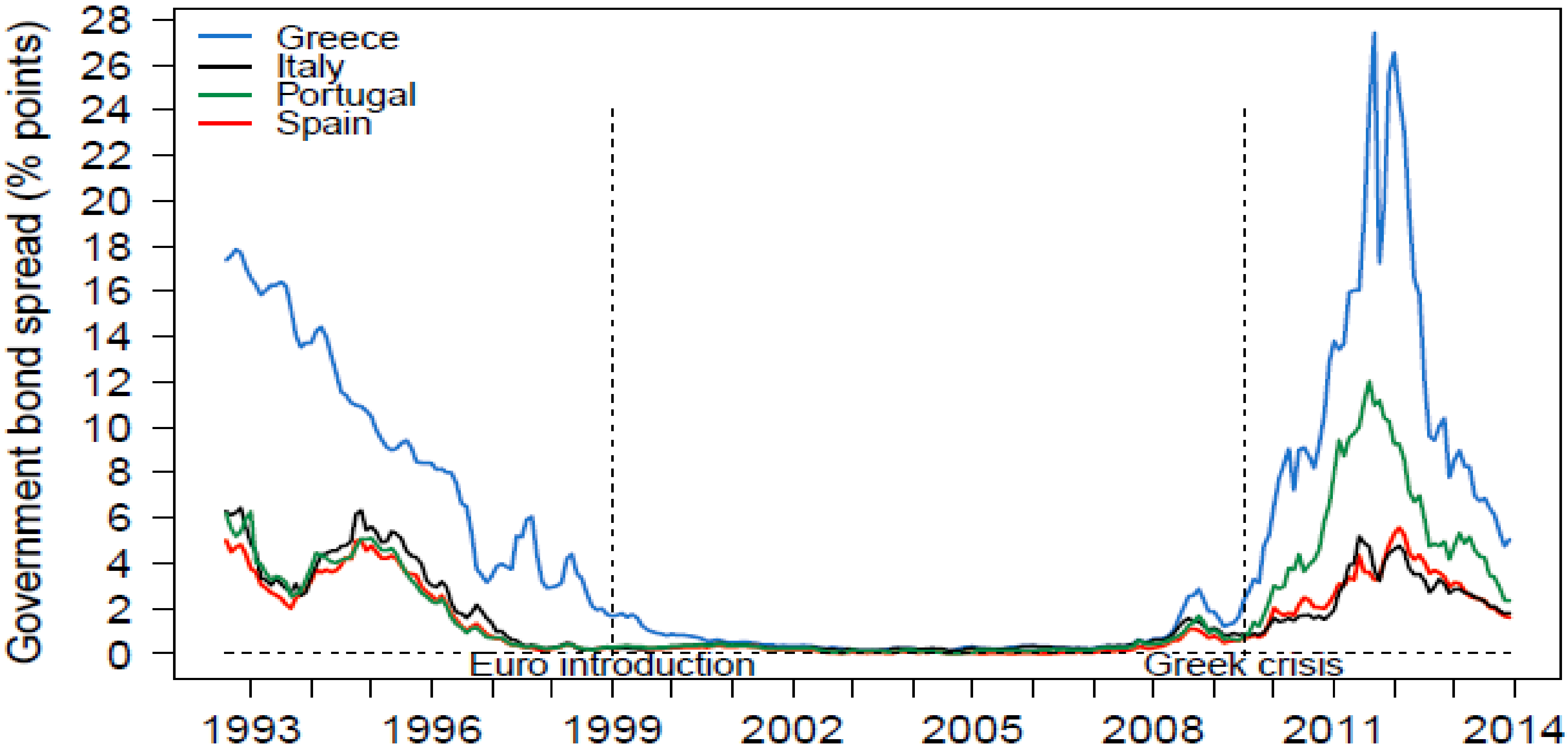
Is it the lender's fault?



Both sides have their points

- The Greek government and its citizens seem to have over-paid their public sector, some private citizens cheated on taxes, and corruption *was* (*is?*) rampant.
- On the other hand, European banks failed to do their proper due diligence.
  - But there are third and 4th factors: “institutional weaknesses of the eurozone” and “failed market discipline.
  - I will discuss this first.

Review this graph again, but focus on “Euro introduction”



Taken from: http://www.voxeu.org/article/eurozone-debt-bailouts-and-contagion

Institutional weaknesses and failure of market discipline

- “Artificial credibility” of Eurozone membership
  - The entry of Greece into the euro area in 2001 boosted credibility of the Greek gov’t.
  - Greece economy got “huge dividends”--> sharply reduced interest rates for borrowing (Gibson et al. 2012).
- Market failure
  - During the period 2001 – 2009, the Greek economy was marked by growing and unsustainable fiscal and external imbalances.
  - These imbalances were not reflected by the interest rate spreads (Gibson et al. 2012).

European integration design weakness

- Expert opinion held that the Eurozone members were never viable to form a currency union in the first place.
  - They were too disparate and had unsynchronized business cycles.
  - The cost of giving up monetary policy was perhaps, too huge.
- These challenges were <u>not</u> dealt with from the onset of the monetary union.
  - e.g., if macroeconomic and BOP disequilibria continue to arise among Eurozone member countries, can countries adjust to disequilibria — without monetary or devaluation escape routes — in a way that is **politically** feasible (Bird 2012)?

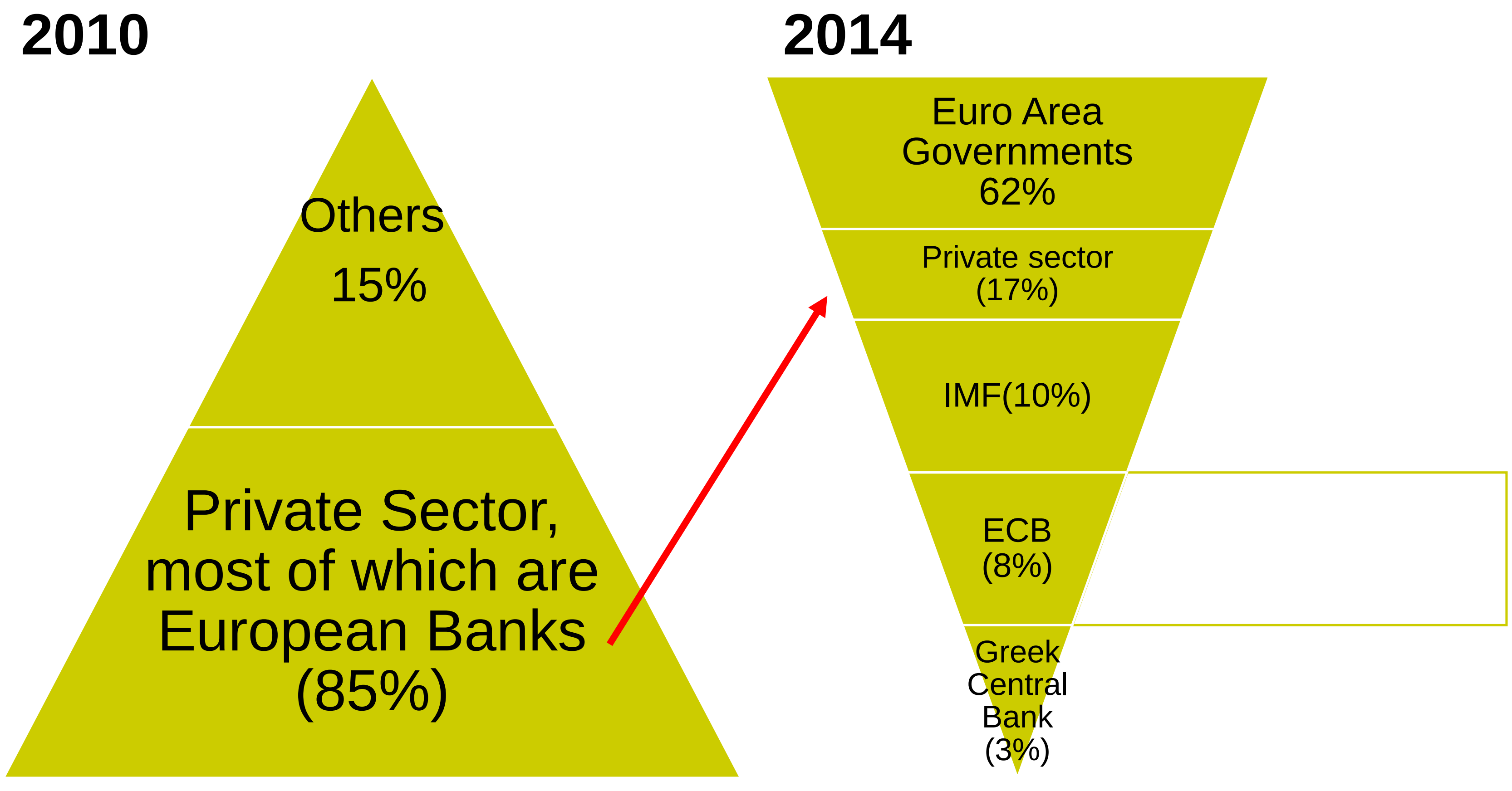
The “huge dividend” was exploited by elements of Greece society

- Many people in Greece thought they could increase their wealth instantaneously joining the Eurozone in 2001.
  - From 2001-2009 (before the crisis), there was a perhaps untenable desire on the part of Greek doctors, civil servants, manufacturing workers, etc. to earn salaries and enjoy lifestyles on par with their northern European counterparts.
    - The Greek political leaders accommodated these desires by overly borrowing and spending.

Banks, the original creditors, are not innocent, either

- Blame also falls on the private banks in Germany, France, Belgium, etc. for failing to conduct proper due diligence.
  - In the second quarter of 2010, French and German banks had more assets invested in Greece than banks from any other country in the Eurozone. (Source: Bastian 2013)
    - Prior to 2010 (the first economic adjustment program) >85 percent of Greece's sovereign debt was held by private institutions (Source: Macropolis).
    - Following the debt restructuring and buyback exercise during 2012, as of October 2014, only 17% of Greek bonds are held by the private sector.

Credit migrated from private into official hands. Who was the bailout really for?



Source: Bastian (2013)

Source: Sbahi (2015)

Summary

- The Eurozone financial crisis is not “just Greece and it’s not just fiscal” (borrowing from Willett et al. 2011).
  - The crisis evolved in three separate stages, and at this juncture, the biggest question is whether Greece will default, abandon the euro and issue the drachma.
  - There are various cracks/fault lines in the run to the crisis (Greek government, private bankers, the European integration set up), all of which played equally important roles.

Closing Remarks

- "In 2001, when Greece joined Economic and Monetary Union and adopted the single currency, the omens were auspicious and expectations were great. The impression at the time was that Greece's inclusion in the core of European economies would act as a catalyst to accelerate its real convergence with the advanced European countries at both the economic and social level." (Bank of Greece, 2014)
  - Who suffers now? http://nyti.ms/1T6LLUH