

20/1/2011

Dr. Daniel Gros

Thank you very much Stelios, thank you very much to the Harvard Business Club for this invitation. I am honored to be able to speak to you tonight, honored to address ladies and gentleman, Excellences and Prime Minister, on this topic which is of central importance for the European Union today and of course for your country, Greece.

I want to emphasize that I stand here in front of you just as a humble economist, I do not pretend to know much about politics, that I leave to those who are in charge, but I think my task will be to tell you a bit about the background of what is feasible, of what is necessary for both Europe and Greece to address this crisis.

I am particularly honored that this meeting tonight is in memorial of Tommaso Padoa-Schioppa. I myself must add more thought and more for the origin, I studied in Italy and the United-States and I had the great honor and the privilege to work together with Tommaso in the early 1990's and late 1980's actually, when the plans for monetary union were drawn up. A time of course at which his thinking was particularly influential. Let me start therefore with one of the key insights that Tommaso brought up and forcefully fought for in the policy debate in those years.

By the way, for those who know him, know that if I use the abbreviation T.P.S. this is not meant as disrespect, but as a sign of honor because that is the way his friends and colleagues used to refer to him.

Now, what he said at that time was actually quite simple, but it had profound implications. It was that there is an incompatible trinity, you can not have capital mobility, fixed exchange rates and national sovereignty for monetary policy at the same time. Ok, so the Bundesbank said, 'We agree, there is a logic conclusion, we ran the monetary policy for the EU and all the other piece are just you loose your sovereignty.' And the answer was of course, 'That is not exactly what we had in mind when we went into the EU, we thought that there should be a common decision making mechanism.' And that was the conversation that led to many aborted plans, but also finally to the realized plans for EMU and the introduction of the euro. So that was his way, you first establish the guiding intellectual principle and then you have to have a conversation at a political level, how you can actually implement it, so that everybody find itself in the game of the speak.

The question we are facing today is when they say new incompatible trinity. And the real question for me, I think a question and the answer to which will be given maybe in Athens, in Greece. We have Monetary Union, we have integrated financial markets but can we combine that with national autonomy for fiscal policy? That is the question we are facing.

Of course the temptation for Germany is to answer the same way as the Bundesbank did at the time, and they are saying 'ok, we agree you can't have all of the three, the third one goes we said our fiscal policy and the other has to adjust' I presume the general answer would again be 'that is not exactly what we had in mind'. But that is the tension you are facing today, that is a game you are seeing played over and over again by Angela Merkel and others and that is the fundamental issue that we have to address. But you can not just stay at these broad principles, you have to get down to the actual problems we are facing and we have to recognize what are the real fundamental issues that determine the way the economy works. And here, I would like to go a bit more into the economics, not of the crisis, of what is the really underlying problems.

Here I would like to propose to you five points. The first point that is not very often recognized is that, debt and debt is not the same thing. I would say as a first approximation for Greece, perhaps the fiscal deficit is less important than the deficit of national savings. I will come back to that, that is a key point that is I think too little recognized. And that has implication for how you look at the current account and the level of consumption, I will talk about that later.

The second point, which is not very often recognized, is that Greece is actually compared to other countries in the EU in a very privileged position because it have received unseen from the public and unnoticed from the public very large amount of financing from the ECB at very low interest rates. Everybody talks about the big package from the EUMF ECB, 110 billion, but in reality the true financing for Greece comes by a channel that nobody much notices and that is I think one key factor that has to be kept in account.

And then finally we have to talk about the long term growth prospect because we all know the debt problem is a debt problem if you have decent growth. What are they for Greece? I have a few points there. And given that I remain a bit skeptical if I may say so about the Growth prospect for Greece, I will ask myself is there a way out through restructuring its not an easy way out, but can one do something on that front? So, these are some of the important points that one has to understand to have a more rational debate about what needs to be done.

Throughout my talk, I would like to refer to two groups of countries: the one I call the GIPSI you know the one in difficulties, Greece, Ireland, Portugal, Spain, hopefully not Italy, but who knows. And the countries in the EU periphery, the blue ones here, The Baltic's, Bulgaria, which I call collectively the BELL, Bulgaria, Estonia, Latvia, Lithuania, because they share one common characteristic with Greece, they also have a fixed exchange rate. There is one key difference they do not have the ECB behind them, because for Estonia at

least until one month ago, they are not in the EMU. And I want to show you what crucial differences that makes. Sometimes it can mean that the adjustment is harsher but it is done, so the member of the new area is a double edge thought perhaps at times.

So let me start with the key topic. **Public debt becomes bearable if it is financed by your own citizen.** That is one key insight that you will always have to keep in mind. Everybody knows Japan has a huge public debt to GDP ratio, but does not matter, does not matter why? Because the Japanese population save so much that they can finance their own deficit plus the rest of the world. **Meaning that they have a current account of surplus.** And that is important because even if you have a huge deficit and the government has to finance, pay interest, this is basically left pocket, right pocket of the same society. .... If you have foreign debt that is different, you have to give somebody else money, you have to transfer real resources. And that is completely different proposition. If you have a high public debt domestically and you have high interests rates, ok the ... get more, they can consume more, tax payers pay more taxes, consume less, but the country as such can consume as much as before. The consumption possibility of a country itself do not depend of the amount of domestically held public debt. This changes completely when you have foreign debt, because then if the interest goes up, you have to transfer real resources to foreigners, you have to work to make exports and get nothing in return except the satisfaction that the foreigners have received their interests. And that is a key difference between domestic and foreign debt that you really have to keep in mind and that is why we are going to talk a little bit about public debt ratios and deficits here tonight. I think everybody knows about that, the key thing is, who finance that, is it the domestic or foreign? And that is why what we should really look at is at the external debt of the country. For those economists among you, there are various measures of debt, let me take here what is called the Net Debt, namely a country might have some foreign assets, I deduct them from the growth debt, and then the question is how do you measure the importance of the debt and the capacity of the country to service that debt? Most people look just at GDP, because that is convenient, and then if you look that for Greece the problem seems to be huge but manageable in a certain sense. Under that metric you see that the ratio of net external debt to the GDP of Greece is around 107%. Huge but manageable. And if you go along the first row, ok still the highest but it is not that far from Portugal, the other difficult case, somewhat higher actually than Argentina, let me put that aside for a moment, but as I **said earlier when you have external debt you have to service it not through the GDP but through exports.** You have to work, export the stuff and then the foreigners keep the money. And then if you look at it this way then you see that the

Greek external debt is very, very large indeed. Basically because Greek exports has lower GDP, five times annual exports, that means if the interest rate goes up you are risking to use a large part of the export revenues just to pay interest and very little is left for import, for consumption. And that is important here, and you see on this account Greece has a much higher ratio than Portugal and if you compare Greece here to the BELL, Eastern Europeans, then you see that for Greece the ratio is five times as high. So Greece is in a much, much more exposed situation on the external front. And I think that can't be underlined enough, that is really the front that counts. So, if you have a lot of debt and as said is foreign, then the only really way to adjust to that, is not so much to cut the fiscal deficit, but to have an adjustment in the current account. Current account is a different of how many goods or services you export and how many you import. And that means that the adjustment of the current account is a key mechanism but if you have to adjust quickly you can not do it through exports. I know every politician would say 'Ok, We know we have to have better current account, the way out is to export more'. But there is no button to push to export more. Everybody tries to do that but it does not work. In the short run experience has shown over and over that the only way to adjust your current account is to compress consumption basically. If you devalue exchange rate after a while your exports will grow but financial markets don't give you the five-six years you need to become effective if you want to have an adjustment within a couple of years, then the only way is to compress consumption. And I wanted to give you an example of how that has played out. I hope you can see this graph, the upper line goes up like a rocket, then force like a rock, those are the Eastern European countries. They grew like wild and then adjustment goes 'woom', consumption goes down. Then the boring line down there, that is Germany, almost stagnant and then at the end just a little bit. And then the bold here in between, that is Greece, Greece at the actual date, stops at 2010 and then I have put two lines, the lines which I think would bring Greece on the safe side, sort of speak, balanced current account, or a surplus in the current account of the same size as the Eastern Europeans. And you see what is required, here you see it in a bit more detail, it is basically an adjustment of around 20% in consumption. And when I say consumption, that is basically the same thing as wages, as Stelios said earlier, that was my prescription already a couple of years ago and I think has unfortunately be vindicated, If there is to be an adjustment in the current account it has to come through an adjustment in consumption. You see the Baltic's which are up there, they have have a fall in consumption,...., but they felt to 20%. In Greece my estimate is that the fall has been so far 6% and a further 20% might be necessary. And that is the challenge for Greek government and for Greek society how to organize that,

how to get that implemented. So that is I think the only way the country can become independent of foreign finances. So, I repeat once more, you hear a lot about fiscal adjustment and the cut in public sector wedges and the cut in pensions, everything necessary and fine, but the real adjustment is when people in the country save more and consume less. That is the key adjustment channel, and that has happened to only very small extent. On that account I would say the adjustment in Greece is around perhaps 1/3 of what is really necessary. So, I think I have fit in that argument long enough, that is really the key channel which, I think the financial market would like to see, the adjustment over and beyond the fiscal adjustment.

Now, why is the consumption rate still so high in Greece? It is basically a question of the savings. Let me just give you very quickly one metric which is very important, what you see here is the Net National Savings, basically meaning how much the country can add to its capital every year. Financed by its own. And here in Greece it is a very unique situation. You have a net negative, underlined two times, negative saving rates of around 11% of GDP's. Which is unique in the EU, which only Portugal comes even close and all the other countries have usually positive rates, you see in the Baltic's +10, +5 and so and so force. So, that is the key factor behind the current account deficit, behind the excess of level of consumption. Unfortunately, this is not just a recent phenomenon, this is not just the fault of the Euro and low interests rates, because if you look here at the net savings rates for Greece, you see it has been declining for almost 40 years now, trend wise. I presume for governments on the left, right and middle it is something really worrying because if this trend is not interrupted, then basically there is no future for this country. You see a little bit an up tick at the end, these are predictions of the EU, you have to see where they come through. The reality is that until now and until up the decline of the saving rates. And domestic savings, that is really the key structure weakness because without your own savings, even if you have investment it does not belong to you. It belongs to the foreigners who gave you the capital and the foreigners they take the revenues and for the Greek themselves very little is left. So, that means no national savings, no growth prospects. That simplify the things a little bit.

Now the problem is for Greece that so far, that was my second major point, the problem has been payed over by the ECB. If I might go back quickly to this one here, why was the adjustment so rapid in the Baltic's, brutal let me say, well for very simple reason, they could not. Capital stopped coming and there was no money so they had to stop, right? They got a little bit of external financing, but that was nothing compared to the capital inflows they had before that. And when you can not spend then things adjust. So that was

if you want their advantage, they did not have a choice. Of course they had a choice of going broke that did not default but just their population took it on the chin, sort of speak, and they adjusted in consumption. Greece, did not do so. Why? Because basically it have got a very large amount of financing from the ECB, here you see the data of middle of end of last year, actually I have checked more recently it have not changed, the refinancing of Greek banks, while the normal monetary policy operations of the ECB amounted last year to around ninety billion. That is around 14% of GDP. This is outside the one and ten billion package, keep that in mind, it is completely separate, it is in addition to, and that is really what kept the Greek economy going. Without that financing would have been ... basically. And consumption would have to drop, in investment and everything else. If I am talking about the support from the EU and so on I should not forget that this was this extremely important life line, that give you the advantage that allows you to delay adjustment. Sometimes an adjustment delay, sometimes make more difficult. So that is very important to keep in mind, you do not find these statics on the internet, they are not published by newspaper usually, just from time to time, but you can get them from websites, their is nothing secret about them. But if you want to follow the evolution of this story, this is one statistic you should look at. This is the way the adjustment has been delayed, also in the case of Ireland, Ireland exploded only when the ICB said 'basta'. You got already 40% or 50% of GDP not anymore and then Ireland has to go to the European Funds. Portugal and Spain have also received very large amount but nothing compared to Greece and Ireland. And of course this money comes at 1%. If you complain about the high interest rates that Europe is charging, 1% is not a bad deal. 1% and 1 billion, I think, that represents a subsidy that is not to be disregarded. If Greece has to refinance this 1billion in market rates you can make your own calculation how much that would mean for the country.

So, how to get out of the mess? You all know, the only way you can make a country support a very large amount of debt is by having more growth. And ok, now government always say we do this, we do that and then growth will come, I tend to look more at the fundamental factors of growth and they are very simple. They are basically the investment rates and physical capital and human capital and the way there are put together by the government and the quality of government. I think its a rule of thumb you can take these three and it tells you more or less what the growth prospect of a country are. Let me not say a lot about physical capital because investment rate in Greece is still ok. But as I said earlier most of that investment is actually done, financed by foreigners. So the returns at the end won't stay at the country. On the human capital side, I know there has been a huge increase in the quantity here but as you all know from the Pisa results the quality is

rather low, that is why I have developed a special indicator which combines the amount of time people spend at school, with the quality as measured by the Pisa results and then I have this composed indicator which you see here, which gives you the quality adjusted years of schooling. And you can see that on this account Greece has made some progress, all the last years, the blue line which is the older population is much below the red line which is the younger population. But Greece is still far away from the average European but also from the best European performance. So on this account I would say it is not bad but not catastrophic. So I would say physical capital is ok, human capital is so so, but the real catastrophe, I would say catastrophe if you want, comes when you look at the quality of government. That is really key because the key implemented reforms is always the quality of public administration. I still, remember in the early 1990's I had the privilege to advise the Russian government and other government in the former Soviet Union the key experience there I made was, you can have many reforms passed by Finance Minister of Prime Minister or even laws passed by the DUMA the Russian Parliament and then at the bottom nothing happens, on the ground. Because it has to be implemented. You can make the best reform program by a dedicated team of ten highly qualified economists and technocrats but you need ten thousand below to execute, to implement the spirit and the letter of the law of regulation. And that you can not change it in one day. Just a piece from German history, the state of Prussia was the most corrupt from all the old Roman Empire of the German nation in 15th and 16th century and it took basically two princess and hard work for sixty years to create the foundation of the Prussia that we know today. So it is possible to turn a country or a principality around but it took them sixty years and it was not pretty. So, this is something of course that has to be done but takes time. And of course is also key for growth, there is a large literature on the negative impact of the quality of governments and particularly on corruption on growth. And when I looked at the number for Greece I was really surprised because everybody knows, ok everybody assume there was a high level, but I always say if it is high level and if it is constant then it is really irrelevant for the growth prospect it is a level effect. Your level of .... are very low but should not really impede you to grow. But what I was really surprised was how much in Greece the numbers has worsened over time. As I said earlier here, my slide here in I think 2000 Greece was ninth from the bottom in the EU 27, then it slide down and now in 2010 the latest number is really the worse in the EU 27. So, there has not only be an absolute decline but it has been both an absolute and relative decline and that tells me, unless that is reversed, it will be very difficult to restore the growth prospect of the country. It might have very well meaning loss passed but implement them

that is a different question, and if that is done improperly then very often when you have very complicated loss, regulations has to be implemented in a proper way, and if that is not done it might not have the effect. So on growth prospect my personal opinion is that even with the best well meaning government that will take years to restore. In the short run there is little to hope for if one is realistic. And that bring us back to sustainability finances, if there is no or little hope of quick return of growth, then we know we have a stack with a debt of GDP ratio of around 1,60% again debt to GDP tells me little. More important is the ratio of the debt to actually the revenues of the government. And here we have for Greece , we are going towards a 4,8%, that is again unfortunate record in the EU. And if you have such a ratio that means you need to have a very high primary surplise just to stay ... sort of speak, at any interest rate. And also and perhaps that is more important, you have an extreme vulnerability, that means every year even if you need to refinance only 10% of your debt, 4,8% of revenues divided by ten, 40 plus a bit because the length is not exactly ten, so almost 1/5 .... you have to refinance every year. And you can see what extreme vulnerability that brings because as long as financial market has remain a little bit nervous then you can get quickly again the same situation as last year when just they said them, 'no this does not look good.' Any weakness in the government, any election that is lost, any reversal vote in the parliament can bring you back to that situation. So my view is that for a very long time the situation will be extremely delicate, it will be very difficult for Greek finances in a market environment.

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Let me jump over this figure which I mentioned earlier. So that brings us to the last issue, which has to remain on the table, that is how to restructure. And let me emphasize here, I am speaking basically only as a private economist and my interest is only to look at the fundamental issues you have to observe when you think about restructuring. The first point which I think is very important, this is not just a unilateral decision, it is not just an announcement on the homepage of the Greek Financial Ministry .... but it has to be a process where creditors are informed and are invited for negotiations on how to achieve a sustainable position because that should be in the end interest of both creditors and debtors. How to do that, perhaps we can discuss the details a bit later, the one key point for me is that ..... to tell them "ok, well maybe we are asking for low interest rates, for more time to repay but we promise you that if growth returns, .... then we have a pot there a special pot from where we will pay you additionally until we can repay you everything." We have to recognize the creditors can not be serviced today fully but the government still hopes and will do everything to make the Greek economy more competitive , have more growth in the future, will take some year, but then if the resource will come, then it should



be used to satisfy the creditors and then I think it should be possible to achieve a deal but we can discuss the detail later if that is necessary.

Now, I think that is something that should be discussed, or not discussed, should not be discussed in public, sorry, but has to be done, rather sooner than later. Why? And that is an important point, official support I think, financial support that is very dangerous for the country. Official creditors, usually pretend to be seen as private ones. But that means if a lot of your debt is held by officials and if you have to restructure, the losses are concentrated on a smaller, smaller part of private creditors and then the losses go up. This could mean that even if you get more money, that the ... on the existing bonds goes up and becomes even more difficult to access the markets. Also this means that if you have the Euro bonds you talked earlier, let assume you have Euro bonds of 60% of GDP for Greece, and are remaining 100% how much would it worth, that would be junior debt. The remaining private debt. You still think you can sell junior debt on Greece in the market? So you have to be extremely careful when you talk about Euro bonds, they are not a solution for this country at this moment. And of course, be very aware of good countries that come to offer small money here and there in return for political concessions, I think that is very dangerous. So as long at this time where all financing is official, the more dangerous it becomes, because in the end, when all financing is official, there is nothing left to .... on private creditors and the country has only the choice basically between offending its little friends or loosing its sovereignty to the creditors countries.

Ok, I conclude, as I said at the very beginning, for me the saving deficit is really the key variable to look here in Greece, not much at the physical deficit and that requires lower consumption by the entire population and not just the public sector and employees, and unfortunately of that only 1/3 has so far been achieved and given the extreme level of the debt that remains, I think the country will remain vulnerable for quite some time and that is why think about some adjustment, some restructure.

I come back to Europe, for Europe Greece is really key test. Europe is based on the collection of solver member states in most cases the Union can not really forces the member countries to do many things, certainly not in the fiscal area, and right now we are discussing at a European level, can we go, can we take some steps towards more fiscal union. Can we issue those famous Euro bonds. And then put yourself in the minds of a German voter, German citizen, or even a French or Deutsch or Finish or somebody from the creditors countries and they have to ask themselves 'mmm there is one country there which has a big problem we know, how has this country dealt with it, that tells us how in future the things might bent out, and unless that question is being resolved if it is still

pending, it is very difficult to expect other countries to sign up for Euro bond or fiscal union. And the question now is how it will be resolved, will Greece go the Baltic route adjustment in consumption, will there be an orderly reconstruction or will be long delays and in the end a disorderly reconstruction? These are the questions which are still open. Fundamental questions that are not answered not in Brussels, not in Frankfurt, not even in Washington that will be decided here in Athens. In that sense the future of Europe is to a very large extent decided by what this country will do over this year and next and how it will handle this crisis because at the end this is not a crisis of the creditors countries, they can do very little except only offering money here and there, there will never be enough, but it is the crisis of those who have a problem to deal with, who have only very unpleasant choice before them, and some of them have to be taken. Thank you very much.



# **The Future of the Euro and the EU: Core versus Periphery**

by

**Daniel Gros**

**In Memoriam of  
Tommaso Padoa-Schioppa**

Athens 20 January 2011

# Prologue

Key insight from TPS in the 1980s and 1990s:

Incompatible Trinity:

1. Capital mobility.

2. Fixed exchange rates.

3. National autonomy for monetary policy.

(Bundesbank: we agree, the others have to give up their sovereignty.)

# Prologue

Today new incompatible Trinity (?):

1. Monetary Union.
2. Integrated financial markets.
3. National autonomy for fiscal policy.

(Temptation for Germany the same today: we agree, the others have to give up their sovereignty.)

## Outline:

- Debt  $\neq$  debt: The key role of domestic savings (savings deficit more important than fiscal deficit).
- Current account adjustment and consumption.
- Adjustment delayed by ECB (lending)?
- Longer term growth prospects.
- Restructuring: not the easy way out.

# BELL vs GIPS(Y?)

Lessons from the (enforced) adjustment in the  
EU periphery for the euro periphery?

EU periphery:

BELL = Bulgaria, Estonia, Latvia, Lithuania

All also with fixed exchange rate.

Key difference: no support from ECB!





# **(Domestic) Debt and (Foreign) Debt**

Importance of public debt depends crucially on who holds it:

- Domestic residents: even very high levels sustainable since this is not net debt at the level of society (no impact on aggregate consumption: left versus right hand pocket).
- Foreigners: debt service = transfer (requires net exports, i.e. usually a reduction in consumption).

## Gross External Debt ratios 2010

	Greece	Portugal	Spain (2009)	Argentina (1999)
<b>Total Gross External Debt as % GDP</b>	<b>187</b>	<b>233</b>	<b>164</b>	<b>52</b>
<b>Total Gross External debt as % of Exports</b>	<b>917</b>	<b>756</b>	<b>696</b>	<b>529</b>
<b>Government &amp; MA gross external debt % of tax revenue</b>	<b>361</b>	<b>256</b>	<b>100</b>	<b>na*</b>

Source: National central banks, European Commission services (AMECO), IFS (for Argentina), JHED (for Hungary external debt) and authors' calculations

# Net External Debt ratios 2010

	Greece	Portugal	Spain	BELL	Argentina (1999)
Net External debt (=cumulated CA 1995- 2010) as % of GDP	<b>107</b>	<b>96</b>	<b>54</b>	<b>70</b>	<b>64</b>
Total Net External debt as % of Exports	<b>528</b>	<b>310</b>	<b>206</b>	<b>117</b>	<b>79</b>

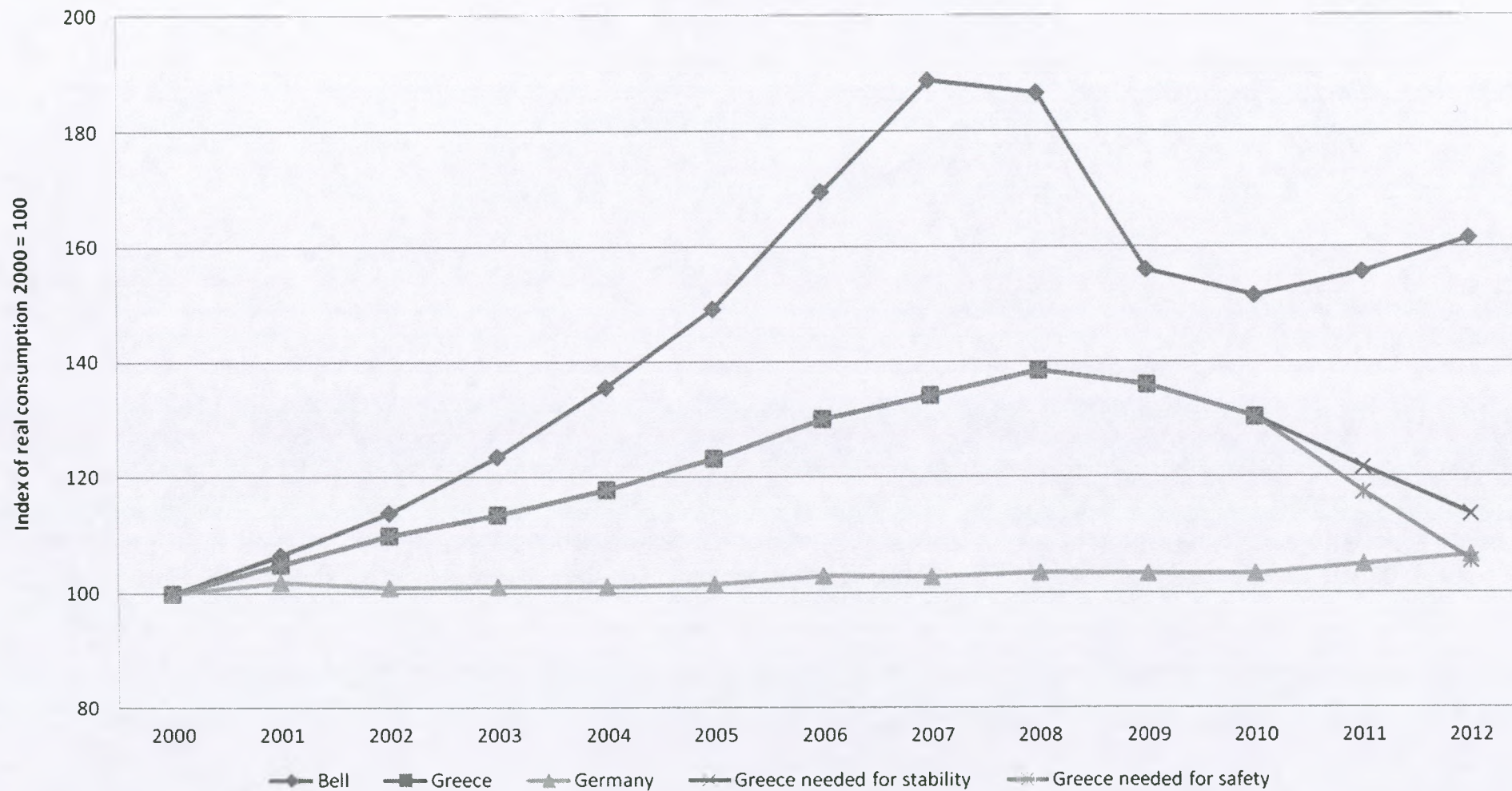
**If most of the fiscal deficit is financed by foreign capital the 'real' adjustment is through the current account.**

⇒ Current account adjustment and reduction consumption (= wages) are the key channel.

Eastern Europe as an example: Some unpleasant East European arithmetic?

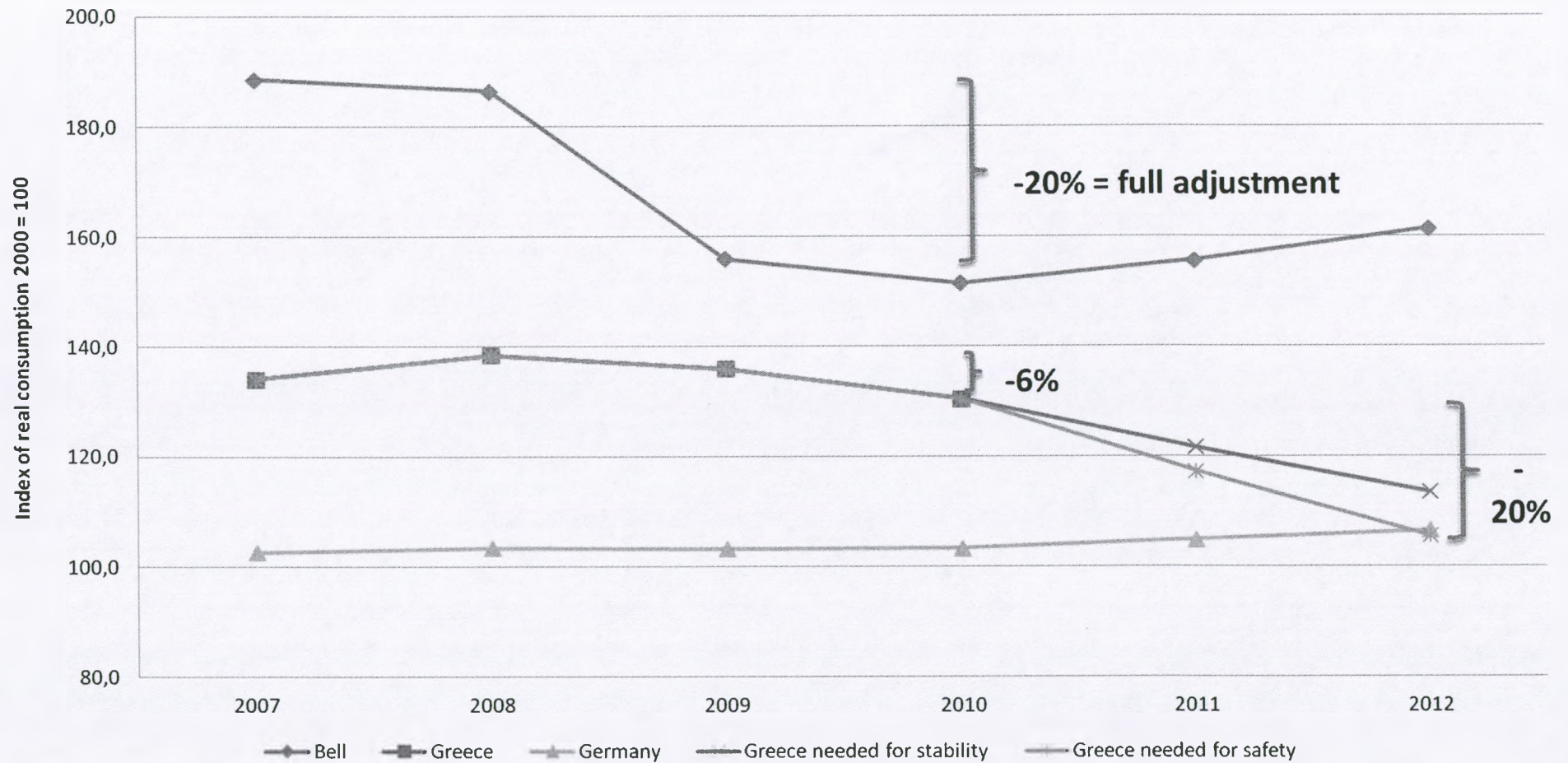
Adjustment only 1/3rd completed in Greece.

### Real consumption relative to 2000



# Adjustment so far only partial

## Real consumption relative to 2000



# Key role of domestic savings

If most debt held by domestic residents: high government debt no problem as government can always tax domestic residents (e.g. Japan).

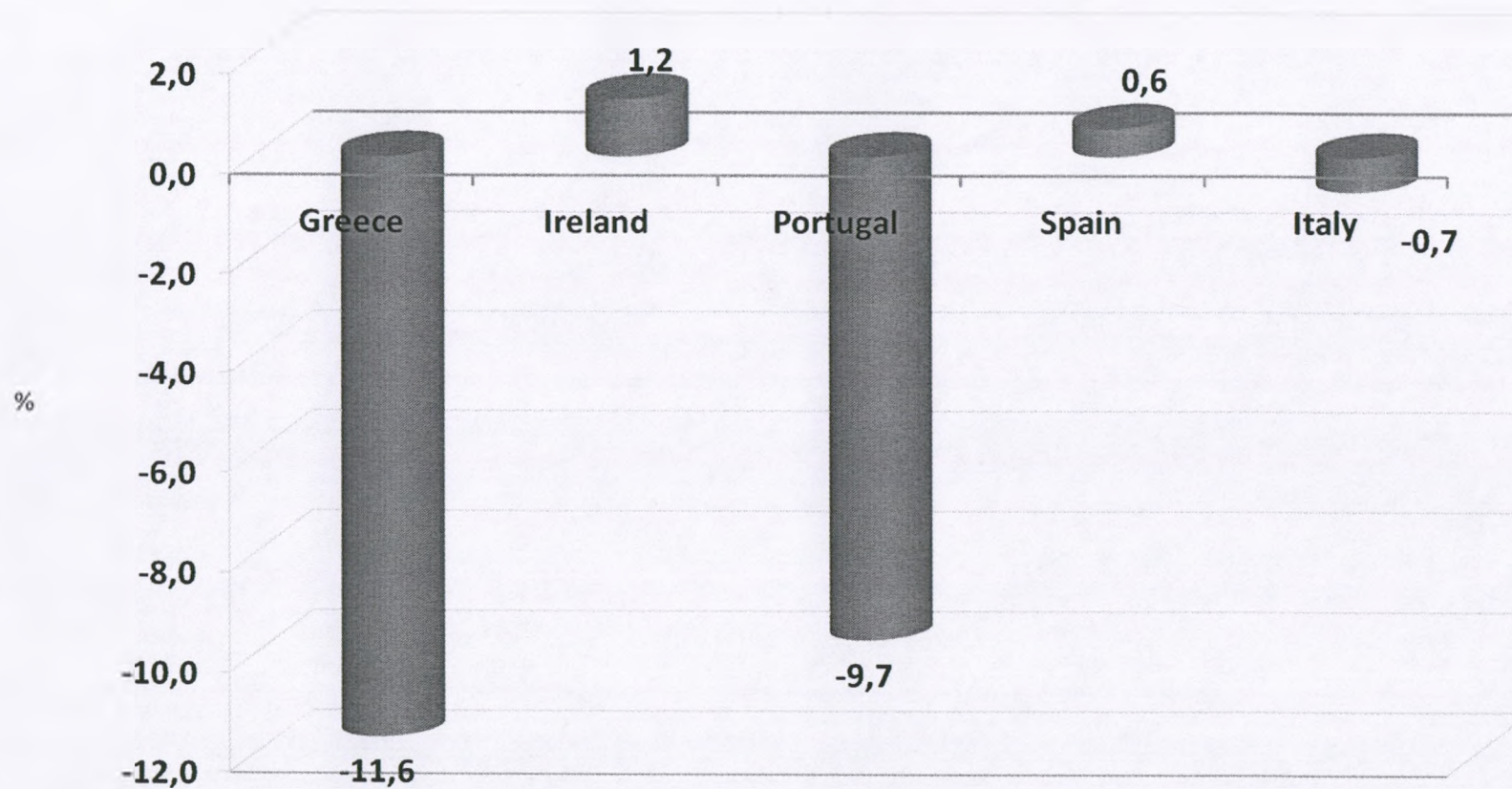
⇒ Stock of external debt and net flow of savings crucial.

Greece: stock of debt mostly held abroad and current account still negative!

(Part of debt held by banks used as collateral with ECB, so in reality also foreign debt.)

# NET NATIONAL SAVING (GIPSY)

Net national savings as % GDP 2010

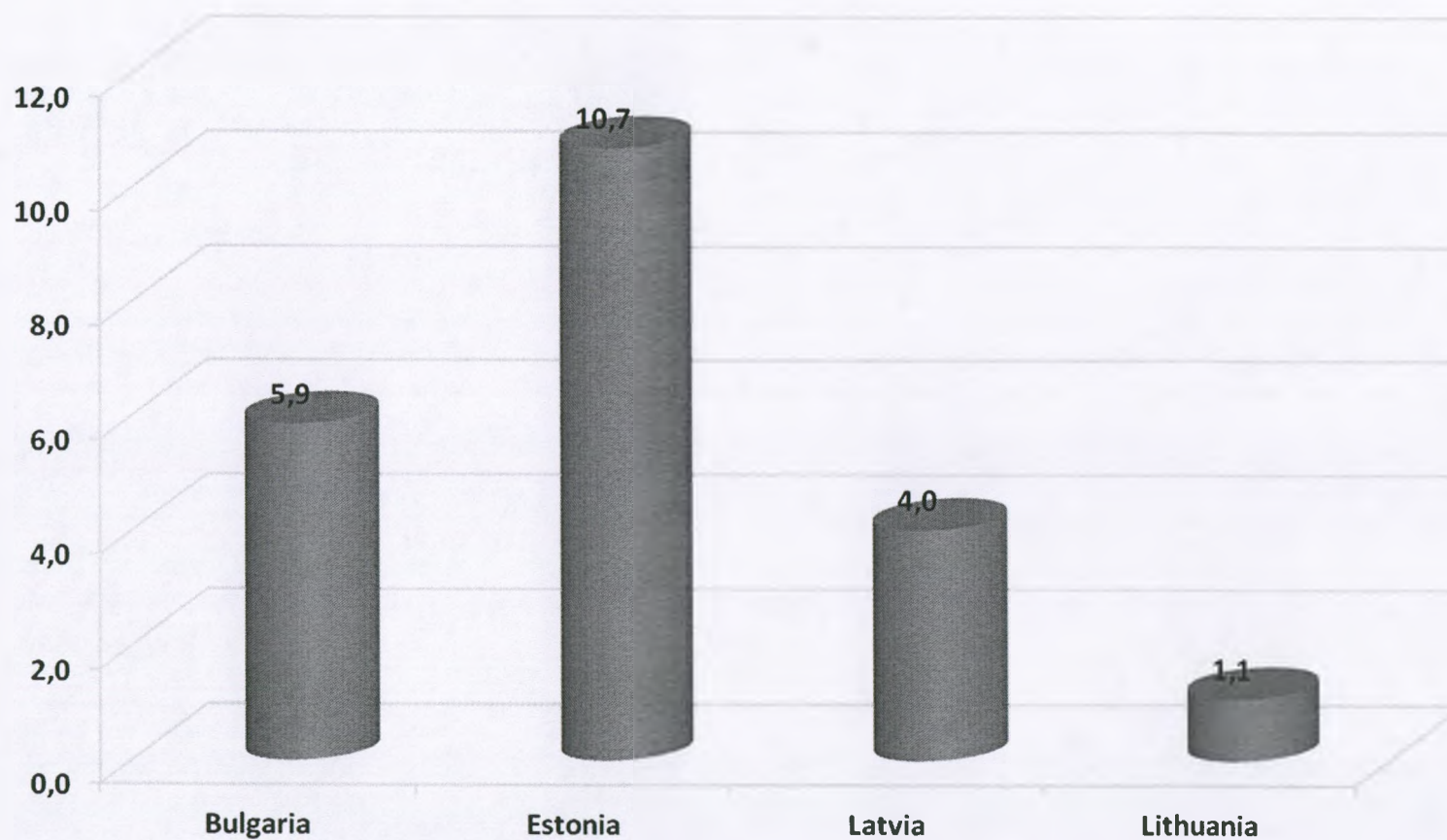


Source: European Commission Services and own computations



# NET NATIONAL SAVINGS (BELL)

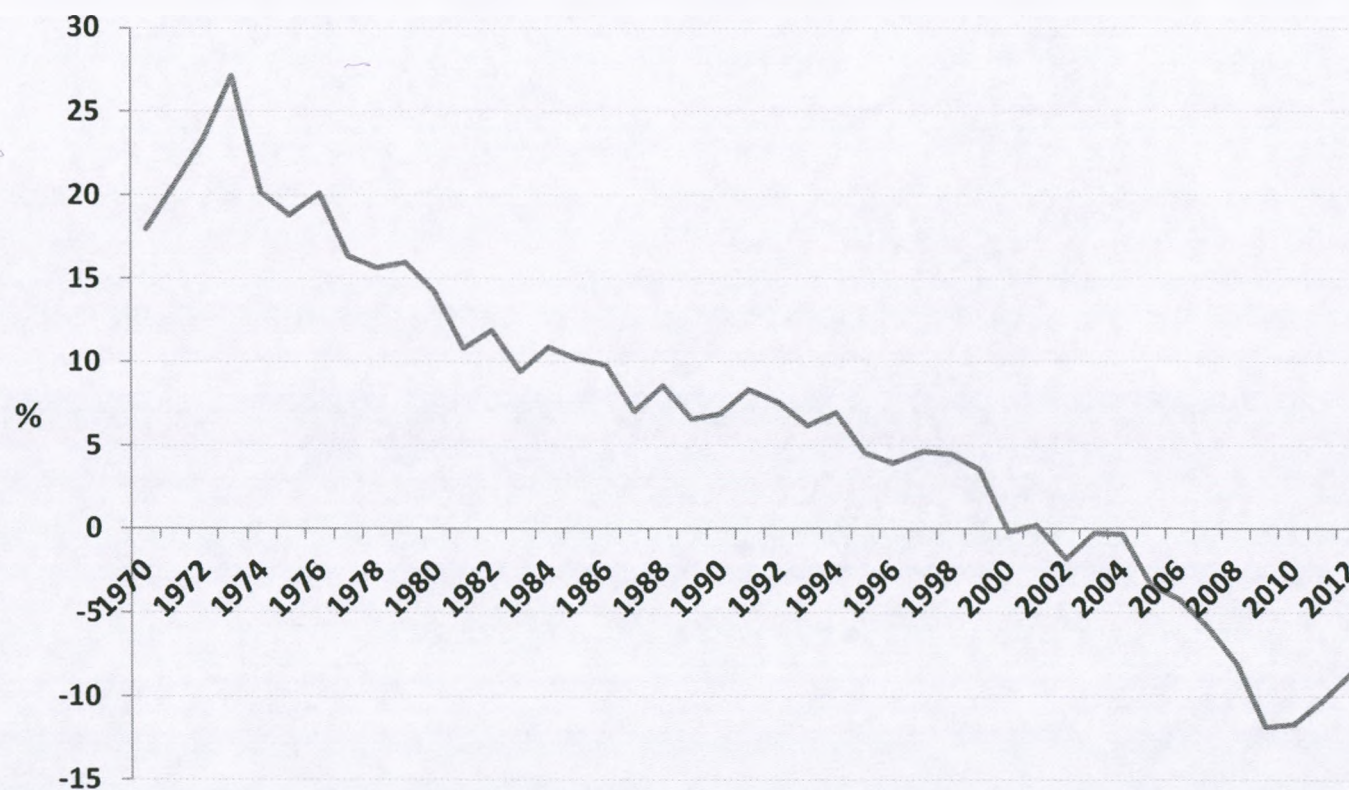
Net national savings as % GDP 2010



Source: European Commission Services and own computations

# Greece: long-term evolution of Net National Saving

NNS as % of GDP



Source: European Commission Services and own computations

# Missing domestic savings

Key structural weakness of Greece (and Portugal): lack of domestic savings.

⇒ Without capital inflows few resources available for investment.

⇒ Low growth prospects.

But problem so far papered over by ECB (via its normal monetary policy operations).

Compared to ECB financing 95 billion Troika loans relatively minor so far.

# The ECB to the rescue!

	National Central Bank lending to domestic banks % GDP	Lending by central banks to credit institutions as of August 2010 Blns euros	Lending by CB relative to domestic deposits
Greece	37%	<b>92.5</b>	26%
Ireland	46%	85.7	12%
Portugal	23%	41.1	13%
Spain	10%	119.0	5%

# Growth prospects?

Key inputs:

1. Physical capital (OK)
2. Human capital (so so)
3. Quality of Governance (bad and worsening)

# Growth prospects?

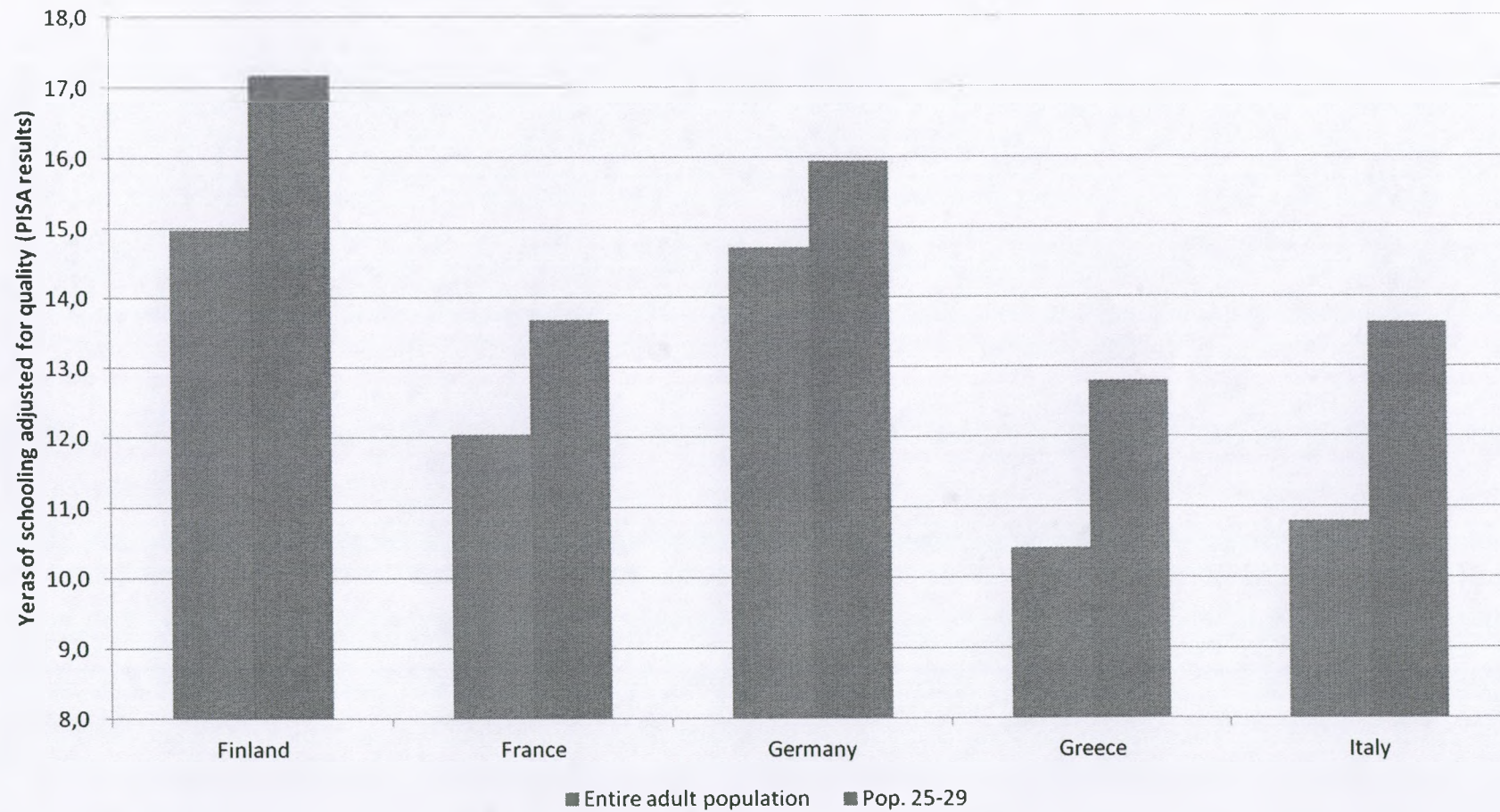
## I) Physical capital:

Investment rate OK, but accumulation of foreign debt means that foreigners have a claim on large part of the additional output.

## II) Human capital:

School attendance OK, but low quality, hence lagging behind EU leaders.

## Human capital formation (quality adjusted years of schooling)



# Quality of Governance?

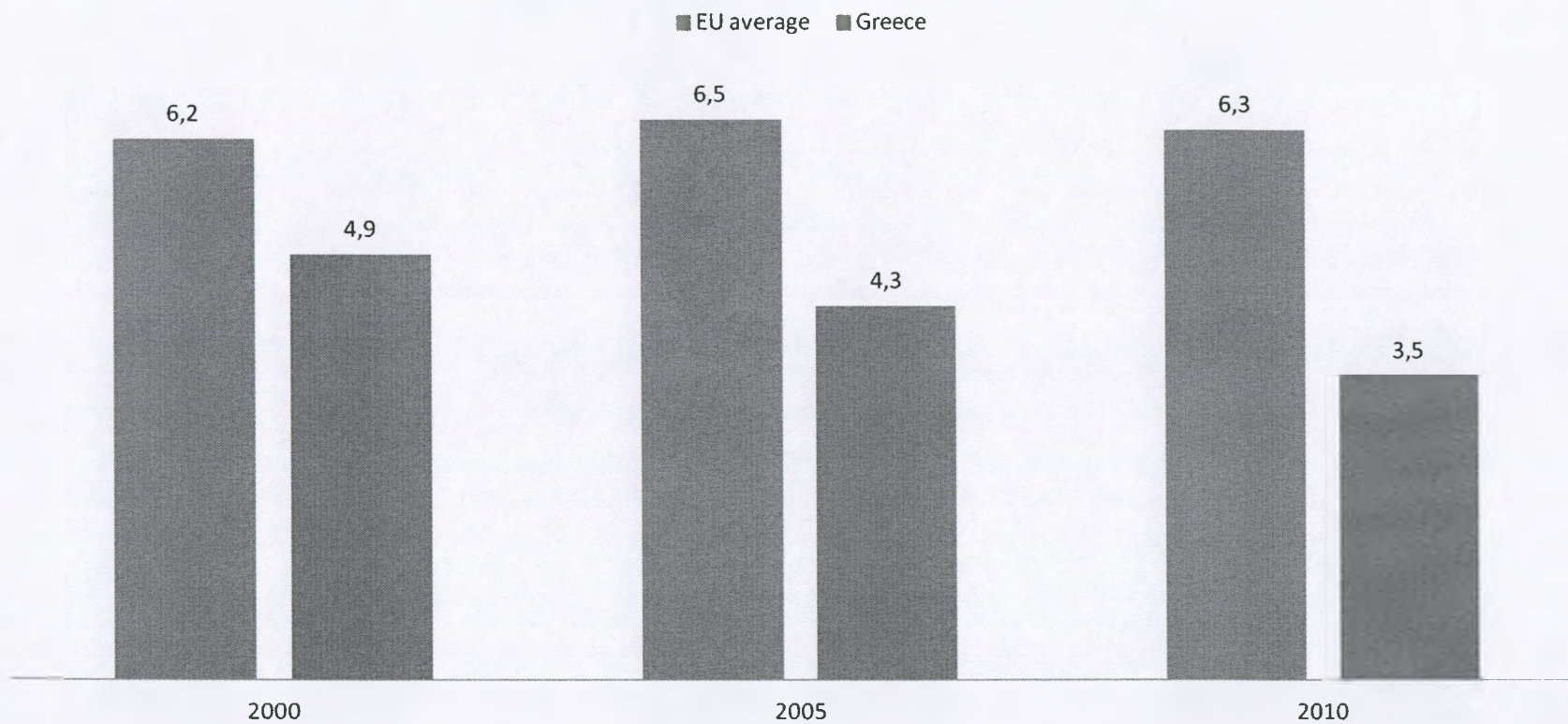
Key for implementing reforms (laws voted by Parliament need to be implemented).

Key for growth (large literature on negative impact of corruption on growth).

Corruption in Greece not only very bad, but also worsening over time, both absolute and relative to EU-27 (now worst in EU-27, against ninth from bottom in 2000).



**Corruption in Greece: going from bad to worse**  
**The decline of Greek public administration**  
 (Measured by Transparency International Corruption Perception Index. Higher value means less corruption)



# Sustainability of public finances?

Despite Troika program projected debt level continues to increase (above 160 % GDP?).

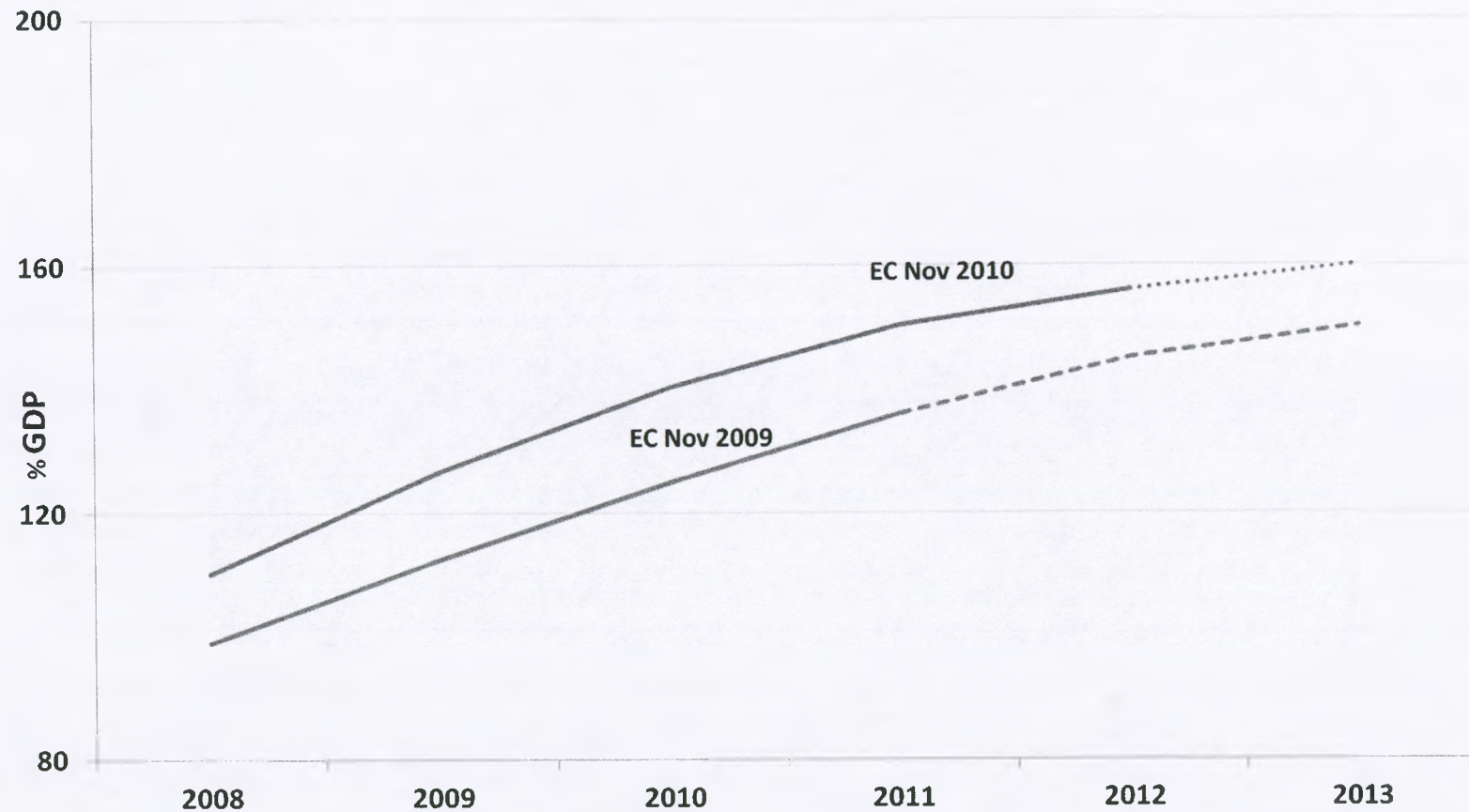
Most relevant measure of sustainability is debt/revenues: towards 400 %?

Little respite from growth (1-2 % against interest rate of 5-7%).

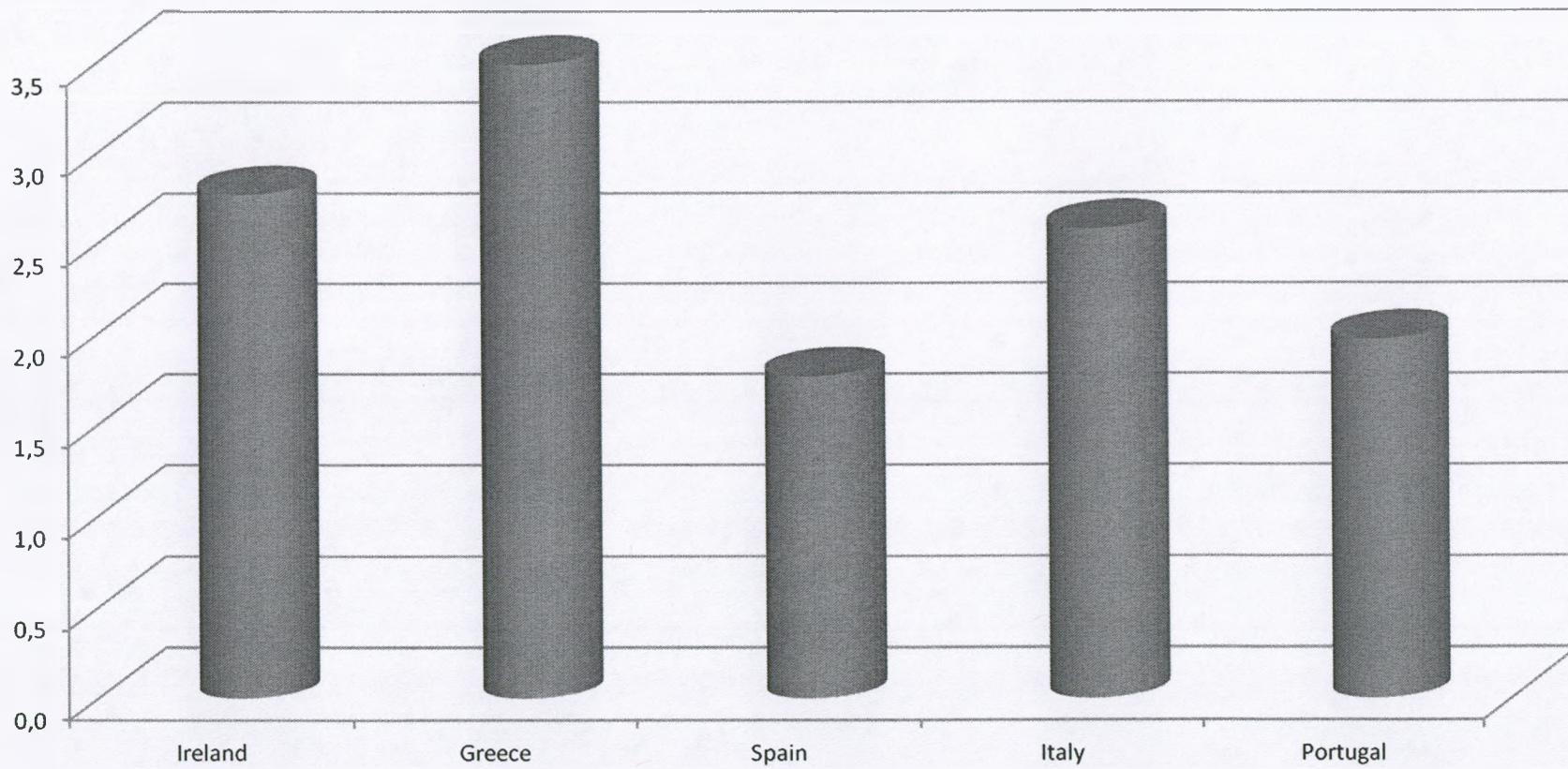
=> Primary surplus 6-8 % GDP required just to stand still.

=> Extreme vulnerability as need to refinance every year around 50 % of fiscal revenues.

# The evolution of Government debt



### Public debt / Total Government Revenue (2010)



# How to restructure = how to become sustainable

5 rules for restructuring:

1. Not unilateral decision, need to negotiate with creditors.
2. Level of debt post-restructuring must be sustainable (low interest long maturity).
3. Creditors must participate in upside (growth or GDP warrants).
4. Balance sheet constraint creditors (banks, ECB) must be given opportunity not hide losses (par bonds).
5. The later the more difficult.

# Official support = a poisoned chalice?

The hidden costs of political credits:

1. Official creditors pretend to be senior to private ones => risk premium on market debt goes up (little left for private creditors).
  2. Politically motivated financing leads to loss of sovereignty, disputes over responsibility.
- => The longer country finances itself from official sources the more difficult to restructure.

# Concluding remarks

“Savings deficit” more important than fiscal deficit.

Debt service requires lower consumption.

Adjustment only 1/3rd so far in consumption.

Given extreme level of debt relative to government revenues vulnerability to swings in financial market sentiment very high.

Negotiated restructuring (with GDP warrants) might be best way to reduce volatility and benefit everybody.

# Concluding remarks

## Europe

For Europe and euro Greece is key test case.

Possible to maintain EMU with national sovereignty over fiscal policy?

Crisis so far suggests answer is no as problems in any one, even a marginal, country become systemic.

Greece can show the viability of the present EMU by either transforming itself and/or by managing an orderly restructuring.



# Outlook for Europe

Europe debates whether to move towards more fiscal union (e.g. Eurobonds).

How Greece handles itself will determine what steps Europe will take.