Fiscal Devaluations

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45” Summary

- Very nice, very clear, *very long* paper on an important question (in the light of ongoing developments in the euro area, but also other experiences):
  - How can countries that are committed to a fixed exchange rate achieve the same outcome that would be generated by an exchange rate (ER) movement?

- Answer: By maneuvering the appropriate set of fiscal (or trade) policy instruments.

- The outcome generated by a weaker ER can be exactly reproduced by
  - a higher value-added tax combined with a lower payroll tax,
  - or a higher import tariff combined with a higher export subsidy.
    - If the weakening of the ER is anticipated, lower consumption taxes and higher income taxes are also needed, and a partial default on foreign bond holders is needed under some circumstances.

- Results are obtained in a standard New Keynesian framework and are robust to a variety of specifications for pricing, asset markets, and the structure of production.

Some Additional Literature Background

- Emmanuel, Gita, and Oleg (EGO—no irony intended!) relate their work to several papers, most closely to Adão, Correia, and Teles (2009, *JET*), who show that allocations in the flex-price, flex-ER economy can be replicated by appropriate monetary and fiscal policies that deliver stable product prices and ER.

- EGO also point out that their result on import tariff plus export subsidy echoes arguments that trace back to Keynes' work.

- I think there is a general theme in the paper and this literature that can be related also to Tinbergen's ideas:
  - Essentially, the menus of instruments that EGO identify act on the same margins of adjustment that are affected by an ER movement in a way that reproduces the desired dynamics.
    - This also requires instruments that re-align additional margins that are not directly affected by the ER but may be affected by the instruments used, for instance, to bring about the desired terms of trade dynamics.
  - Provided that policy has access to a sufficient number of (fiscal or trade) instruments to affect the relevant margins, it can accomplish the desired objectives (dynamics)—a very "Tinbergenian" result.

Some Additional Literature Background, Continued

- In fact, there are results in older literature on sticky wage/price models of policy interdependence and exchange rate regimes that share this flavor:
  - Eichengreen and Ghironi (2002, *OER*) show that the international policymaking regime (and, therefore, the potential desire to manipulate the ER) is irrelevant if monetary and fiscal policymakers in each country have the same objectives in a non-microfounded model of the type presented in Canzoneri and Henderson (1991, MIT Press).
  - Dixit and Lambertini (2003, *JIE*) obtain a similar result.
  - All these results can be re-cast as arguing that the appropriate combination of instruments-to-objectives makes it possible to achieve the desired dynamics (in EGO's case, those following an ER weakening).

Some Additional Literature Background, Continued

- EGO's paper can also be related to the issue of completeness of the fiscal instrument menu (Chari and Kehoe, 1999, *HofM*):
  - In situations in which the dynamics generated by the ER movement are optimal, one can think of the fiscal policy that EGO propose as the optimal fiscal policy.
  - A complete set of instruments (one instrument per margin of adjustment to be affected—or, in EGO's case, re-aligned) is important in these circumstances.
- So, I really enjoyed reading this paper and rethinking some of this earlier/other work through its lens.

Fiscal Devaluations and Optimal Policy

- A particularly relevant literature that I think the paper should be related to more closely is the literature on optimal monetary policy in New Keynesian open economy models.

- Obviously, there are circumstances in which it is optimal to have an ER movement.

- In those circumstances, if the ER cannot be moved, it becomes important to be able to reproduce the outcome generated by this ER movement through other means.

- But what if the ER movement is not optimal?

- EGO do not get into this question, but I think it is important to evaluate the relevance of their results.

Fiscal Devaluations and Optimal Policy, Continued

- There was a lively debate between the end of the 1990s and the first half of the 2000s on optimal monetary policy (and ER dynamics) in microfounded, New Keynesian open economy models.

- On one side, Obstfeld and Rogoff argued for the optimality of domestic producer price stability and flexible ER adjustment (for instance, 2002, *QJE*, very much building on Friedman's original insight).

- On the other, Devereux and Engel argued for the optimality of fixed ERs at least under some circumstances (for instance, 2003, *ReStud*).

- The debate was very much sparked by the advent of EMU, whose current situation is a key motivation for this paper.

- Several other scholars contributed to the debate over the years.

Fiscal Devaluations and Optimal Policy, Continued

- As it turns out, this debate is relevant for this paper because the distinction between producer currency pricing (PCP) and local currency pricing (LCP) that EGO explore was central to the discussion.

- Benigno and Benigno (2003, *ReStud*) provide the best road map to understand the conditions under which producer price stability in each country and flexible ER adjustment are optimal in a two-country model with PCP.
  - Galí and Monacelli (2005, *ReStud*) obtain results for the case of a small open economy under PCP.

- Importantly, Devereux and Engel (2003, *ReStud*) show that dynamics consistent with a fixed ER are optimal in a two-country LCP New Keynesian world.

- Based on these results (and their view that LCP was relevant for the European market), Devereux and Engel's position was that relinquishing ER movements was not a bad idea for European countries.

Fiscal Devaluations and Optimal Policy, Continued

- But if fixed-ER dynamics are optimal under LCP, why would we want to replicate the fixed-ER outcome by using trade or fiscal policy instruments in this scenario?

- Ultimately, this is a question on the empirical relevance of LCP versus PCP for the real world situations to which we would like to apply EGO's results, and I cannot think of better scholars than members of this team to give us answers on this question.

- The answer to this question may also help EGO shorten the paper, which I think would be valuable.
  - Right now, there are too many cases and results in the paper.
  - Even a reader who loves this stuff (me!) is overwhelmed well before the end.
  - I actually think that the static model under PCP is sufficient to make the key point of the paper.
  - Everything else is robustness extensions that could go into appendixes.

Is Adjustment of Tariffs and Subsidies Really Feasible?

- Since the paper draws significant inspiration from the ongoing struggles of the euro area, it would be important to acknowledge that there is a clear limit to the feasibility of the instrument menu that EGO consider in the case of EMU.

- Under Single Market rules, manipulation of import tariffs and export subsidies is off the table.
  - In fact, some argue that the final push for EMU came after the 1992-93 EMS crisis and associated devaluations threatened the stability of the Single Market as French and German producers invoked trade measures against the perceived unfair competitive advantage that devaluation of the lira (for instance) gave Italian producers (Eichengreen and Ghironi, 1996).

- So, import tariffs and export subsidies are a policy option that would not be available to EMU members.

Beggar-Thy-Neighbor Fiscal Policy?

- Continuing to focus on the European case, there is also the issue of how potentially beggar-thy-neighbor fiscal policies would be perceived by EMU partners.

- If ER weakening has beggar-thy-neighbor effects (for instance, Betts and Devereux, 2000, *JIE*, show that this happens with LCP), and a country reproduces the dynamics generated by this ER weakening by fiscal means, similar beggar-thy-neighbor effects will arise (unless the country in question is sufficiently small relative to its partners that its actions have negligible effects abroad).

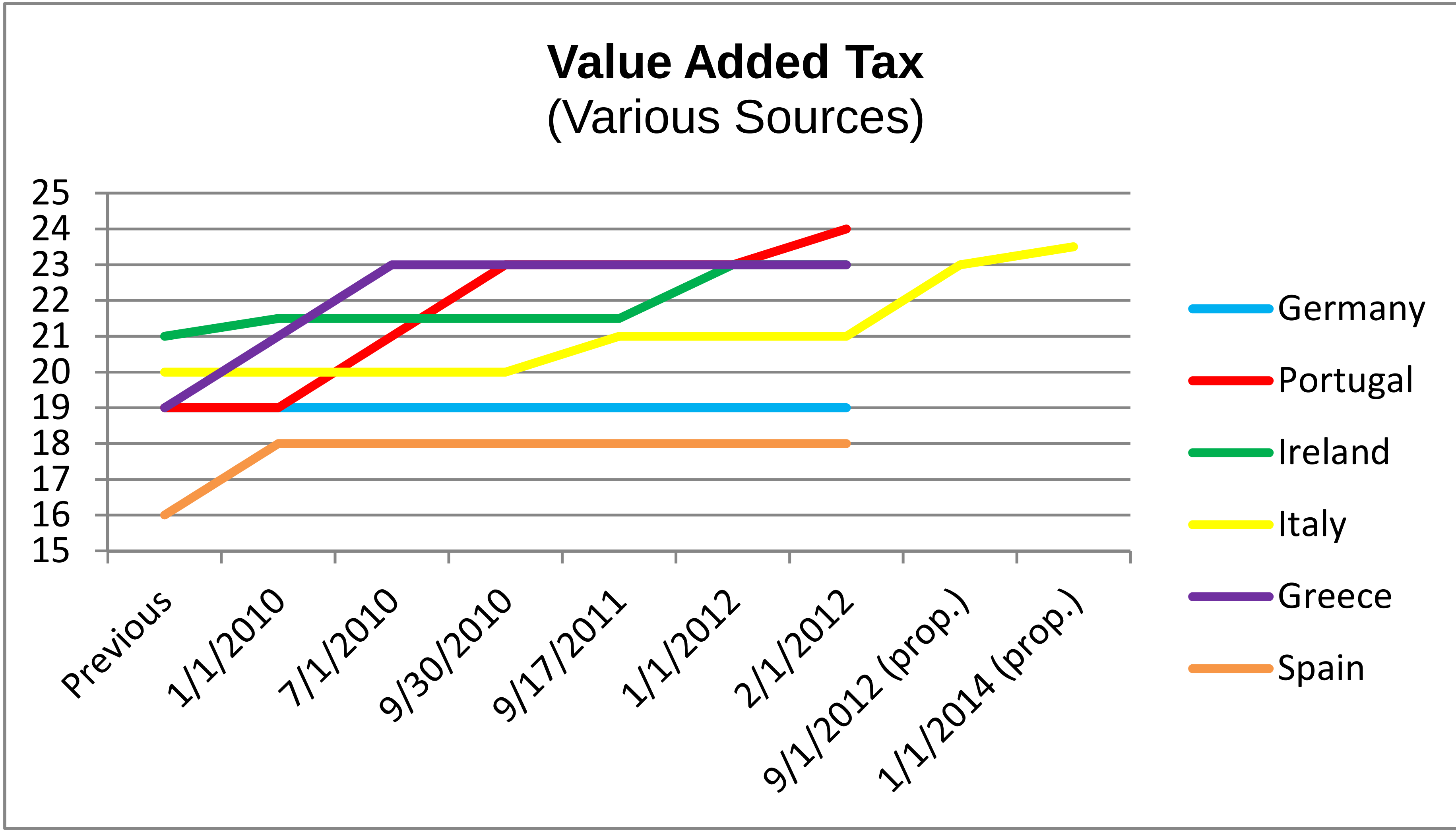
- Response from the partners can be expected—something EGO abstract from, but which will eventually have to be studied for a complete assessment of these policy options.

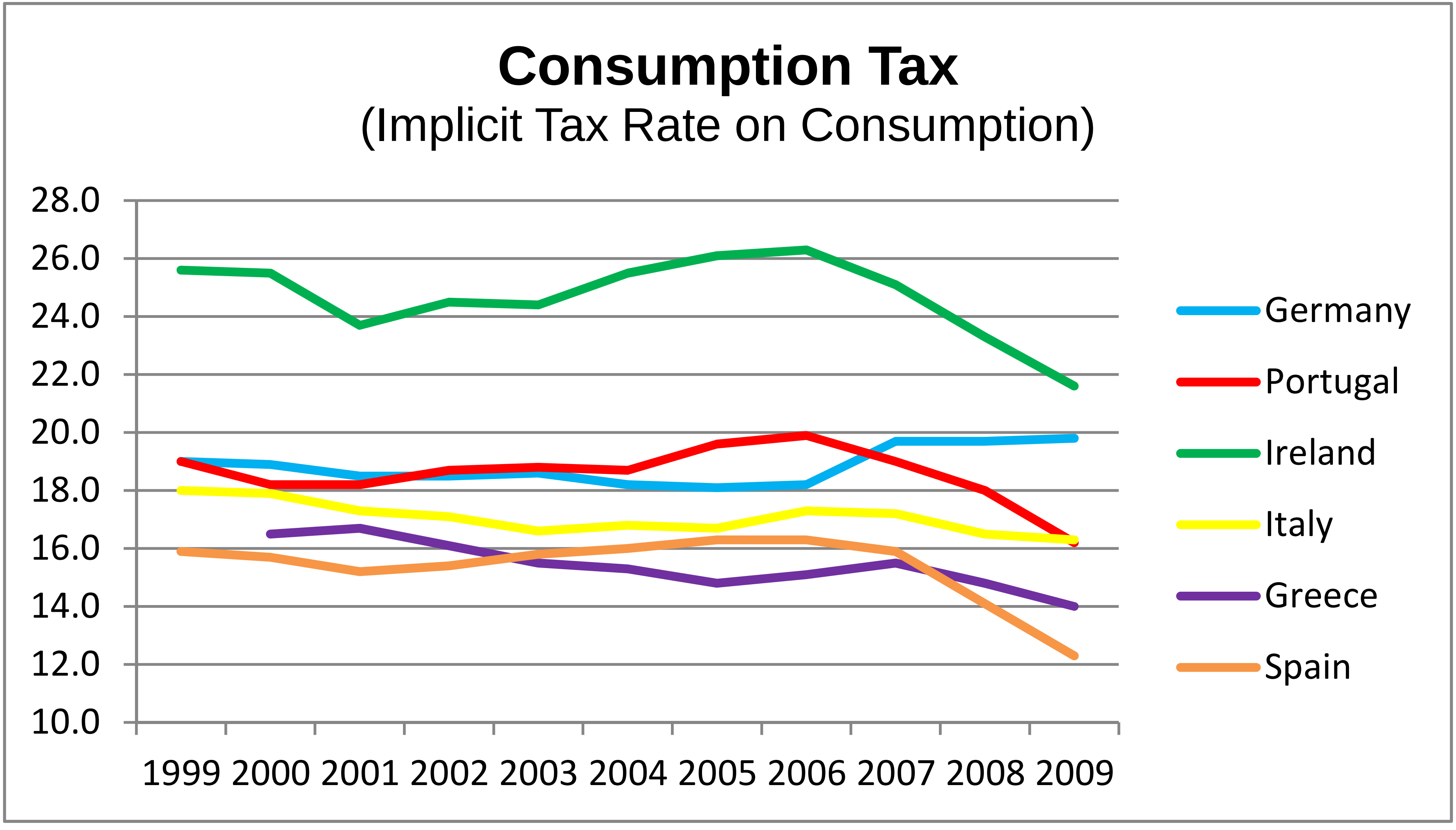
What Have Euro Area Countries Been Doing?

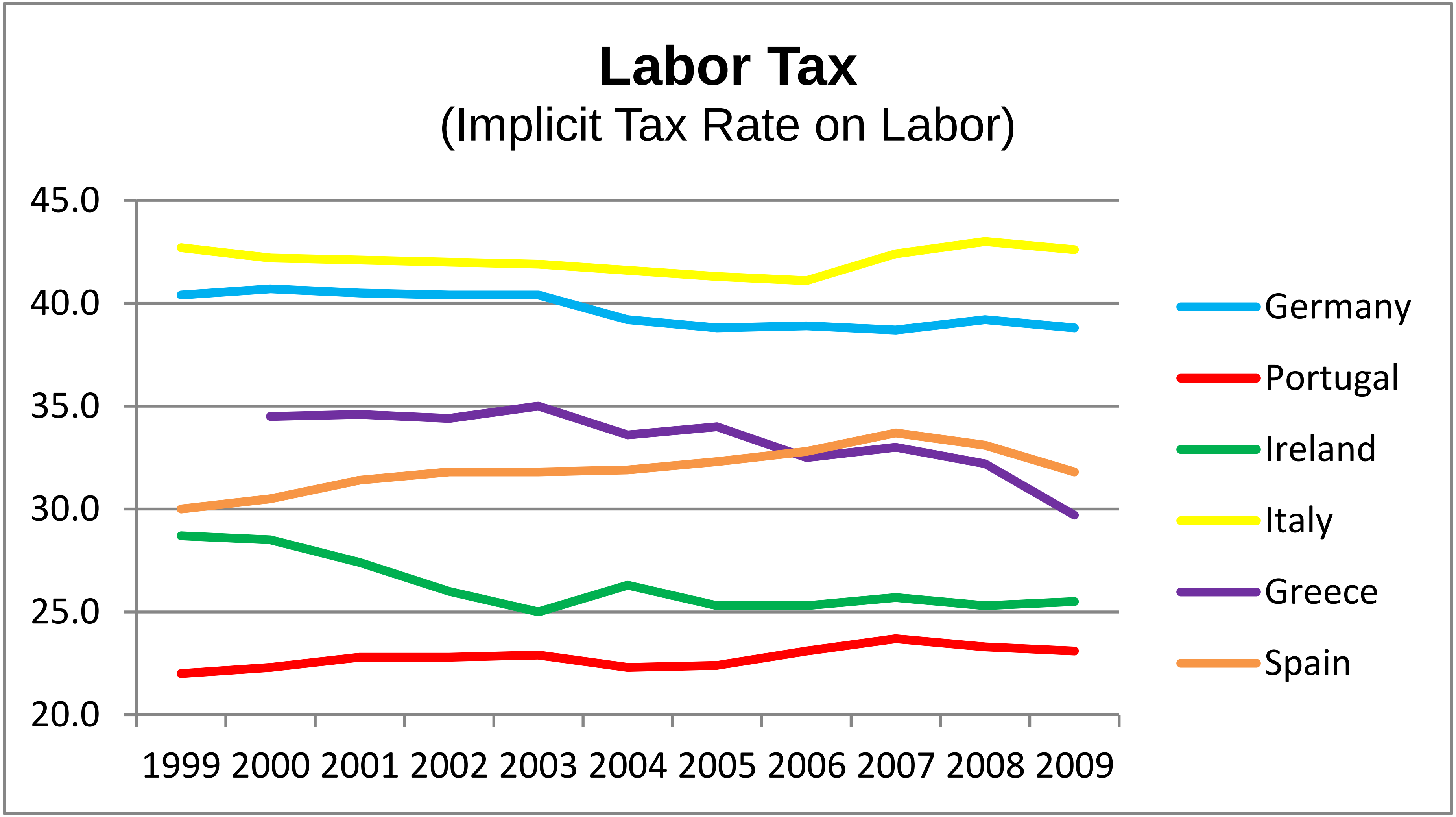
- Given the results of this paper, its motivation, and the heated debate on policy options for struggling EMU members, it is worth looking at what these countries actually did with their tax policies since the advent of EMU.

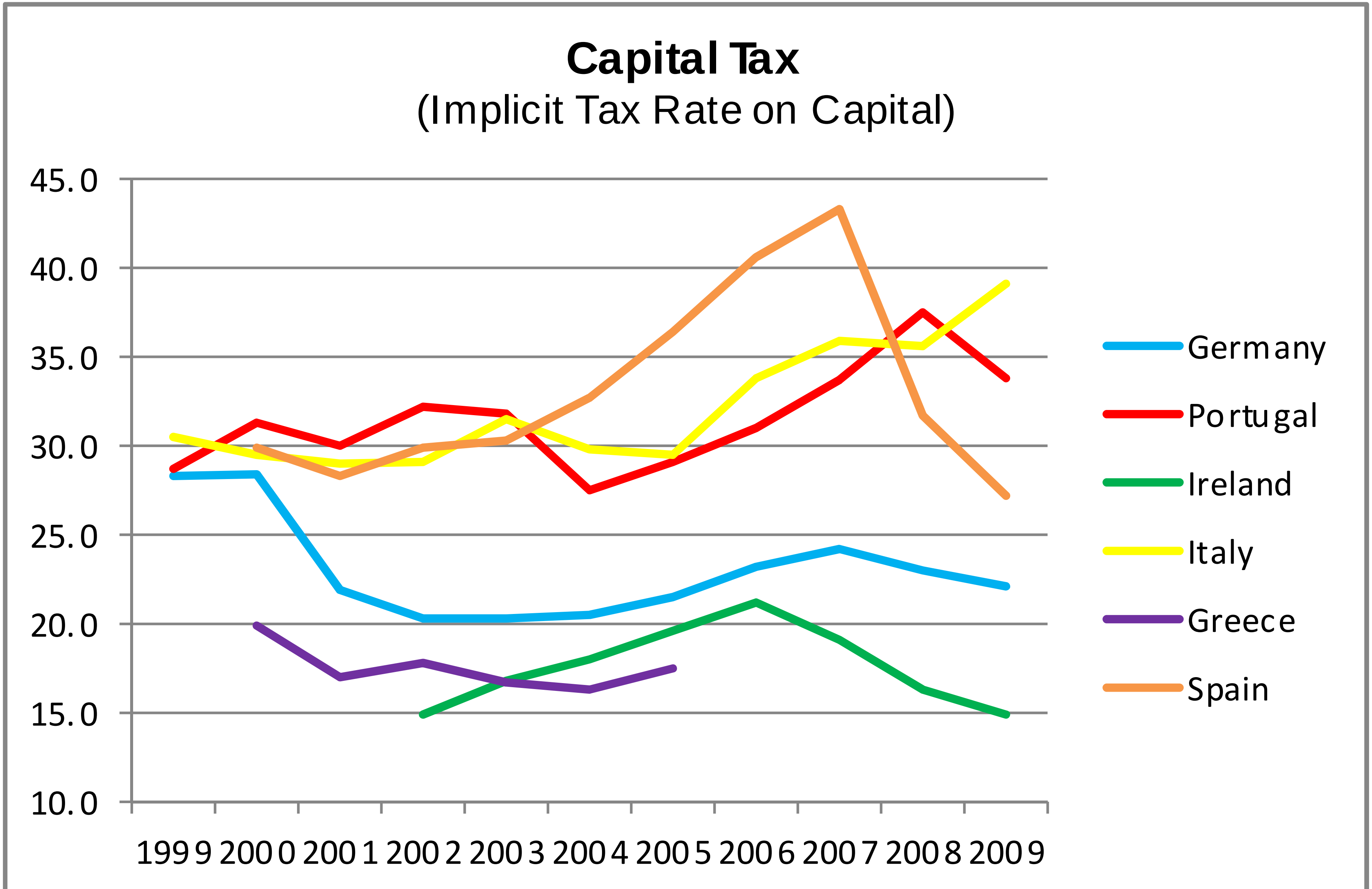
- All data in the tax diagrams below are from Eurostat, unless otherwise noted.

- Focusing on the period after 2004, which saw a widening of the competitiveness gap between Germany and the PIIGS, it could be argued that some tax adjustments implemented by the PIIGS are in line with what EGO would recommend to achieve the consequences of a favorable ER movement: higher VAT, lower consumption tax, lower labor tax, lower capital tax (not clear how much of the latter two is payroll or capital subsidy though).


Value Added Tax
(Various Sources)
25
24
23
22
21
20
19
18
17
16
15
Previous
1/1/2010
7/1/2010
9/30/2010
9/17/2011
1/1/2012
2/1/2012
9/1/2012 (prop.)
1/1/2014 (prop.)
Germany
Portugal
Ireland
Italy
Greece
Spain

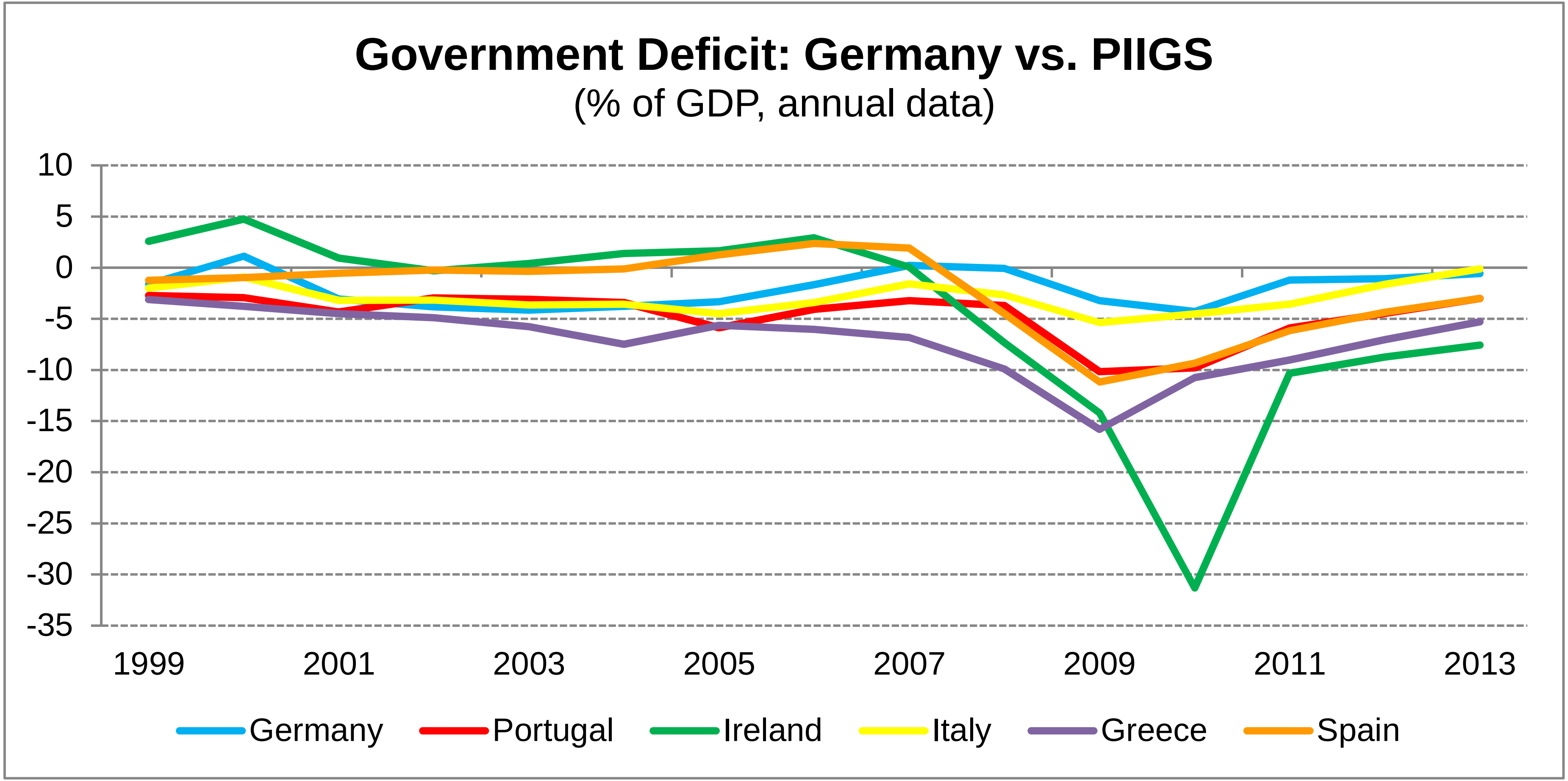

Consumption Tax
(Implicit Tax Rate on Consumption)
28.0
26.0
24.0
22.0
20.0
18.0
16.0
14.0
12.0
10.0
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
Germany
Portugal
Ireland
Italy
Greece
Spain

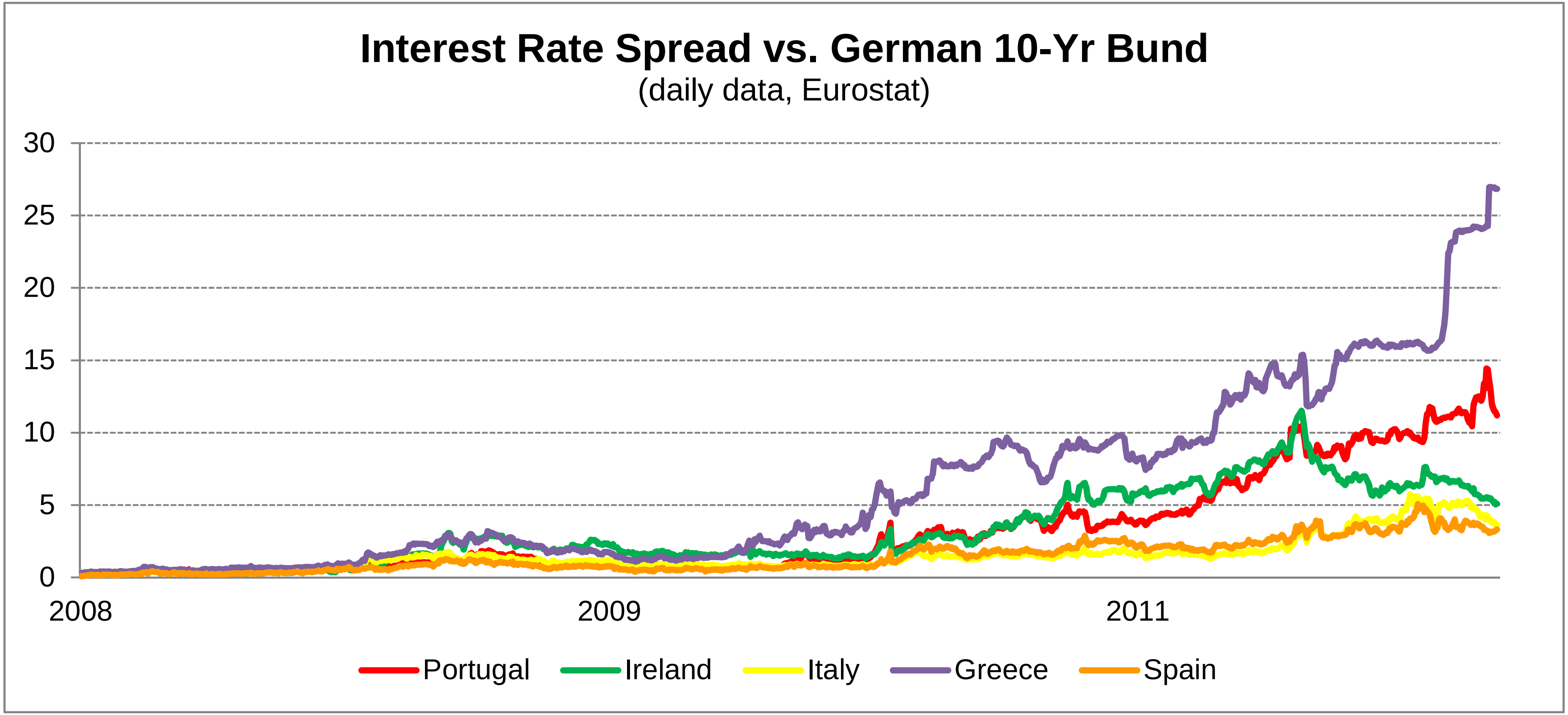

Labor Tax
(Implicit Tax Rate on Labor)
45.0
40.0
35.0
30.0
25.0
20.0
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
Germany
Portugal
Ireland
Italy
Greece
Spain


Capital Tax
(Implicit Tax Rate on Capital)
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Germany
Portugal
Ireland
Italy
Greece
Spain

What Have Euro Area Countries Been Doing? Continued

- A potential problem is that similar tax adjustments were some times implemented across PIIGS, which would limit the ER-equivalent effect (as this would depend on cross-country differences).
- But the most basic question is: Were these adjustment in tax policy driven by the desire to replicate outcomes from an ER adjustment?
- Maybe, or maybe not.
- Maybe changes in tax (and spending) policy were simply driven by the objective to stabilize the dynamics of government budgets, something this paper does not consider.
- Data below from OECD, unless otherwise noted.


Government Deficit: Germany vs. PIIGS
(% of GDP, annual data)
10
5
0
-5
-10
-15
-20
-25
-30
-35
1999
2001
2003
2005
2007
2009
2011
2013
Germany
Portugal
Ireland
Italy
Greece
Spain



Interest Rate Spread vs. German 10-Yr Bund
(daily data, Eurostat)
30
25
20
15
10
5
0
2008
2009
2011
Portugal
Ireland
Italy
Greece
Spain

What Have Euro Area Countries Been Doing? Continued

- PIIGS governments have been under increasing pressure to reduce spending and improve their budgets.

- Other than VAT, the tax data I showed above stop in 2009.

- It seems very likely that government budget stabilization became the overriding objective of tax policy at least after the euro area crisis began in 2010.

- Tax changes may simply reflect the governments' calculations to minimize the costs of revenue requirements (with no consideration for the countries' competitive position).

- In the future, it would be interesting to look at how the kind of policy incentives that EGO focus on interact with restrictions imposed by government budget dynamics:
  - PIIGS governments were not just looking for revenue-neutral policies.

An Alternative Approach to Boosting Performance in a Monetary Union

- While the PIIGS have been pursuing various adjustments in tax (and spending) policies, there is another dimension of policy on which the debate has focused as a tool to spur economic performance within the EMU framework: market deregulation.

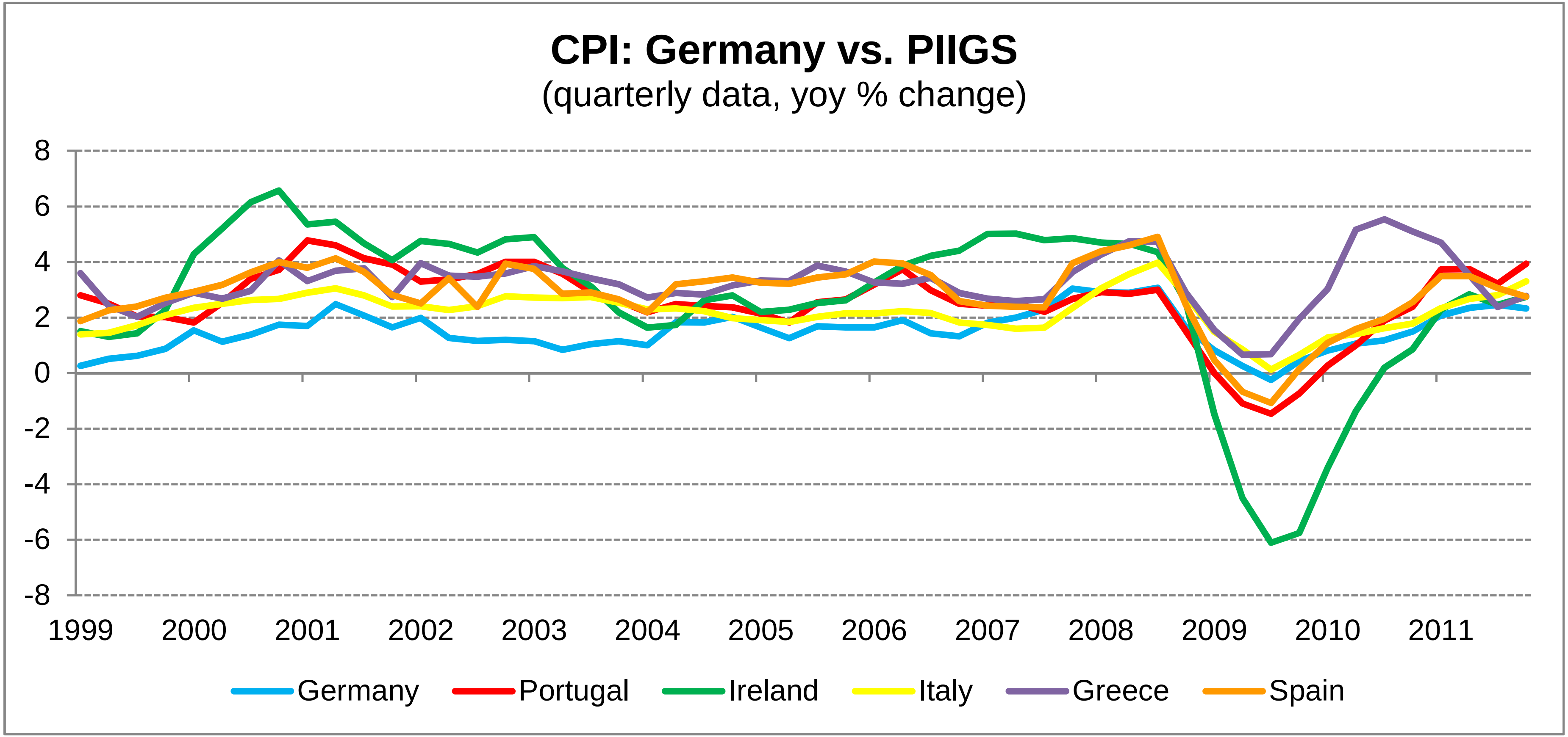
- Germany's recent successful performance is also the result of various forms of labor market deregulation implemented in the last decade.

- There is some suggestive evidence that deregulation improved Germany's competitive position in the euro area.

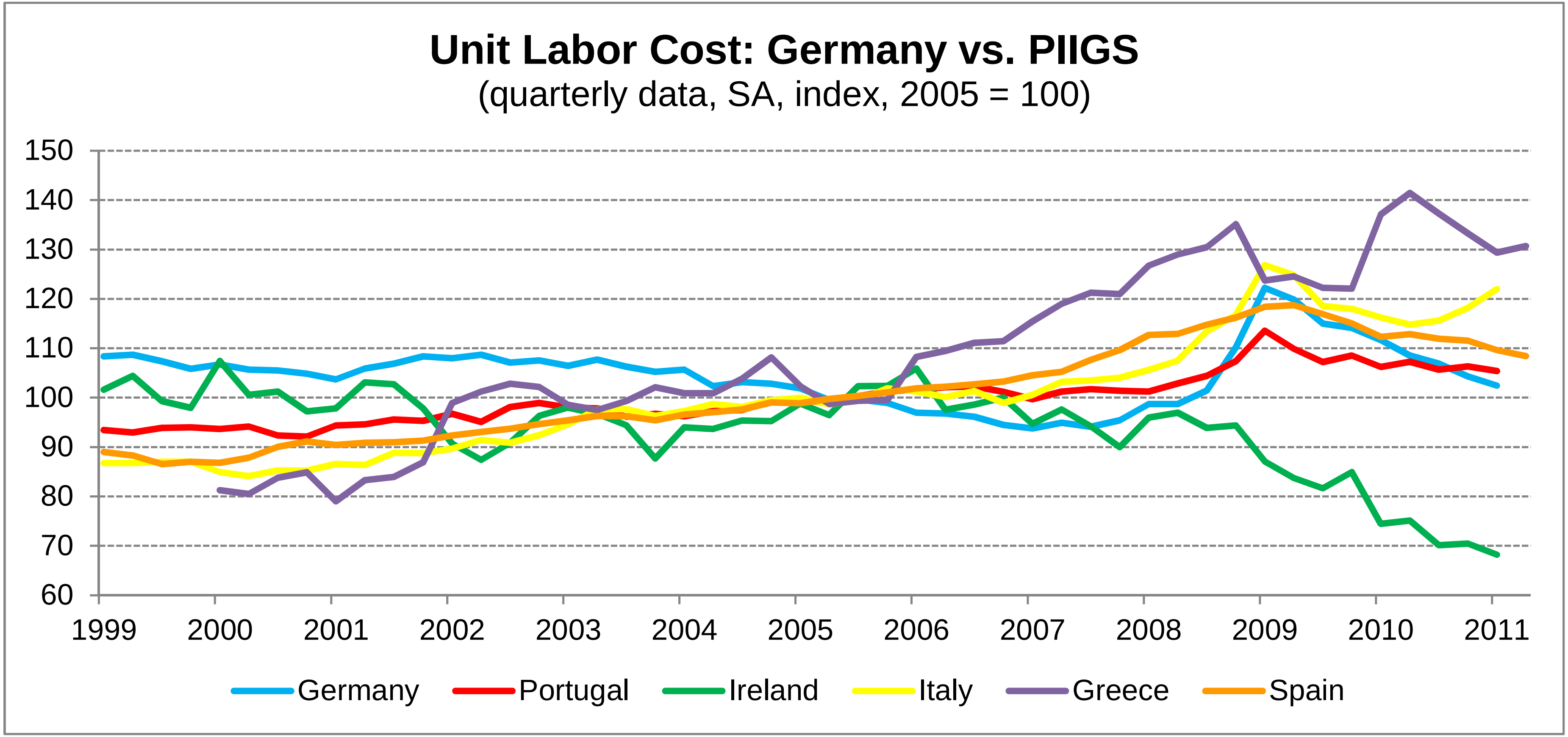
  - Current account deficits in some PIIGS and the financial pressure that ensued also reflected disproportionate allocation of resources to non-traded production (housing).

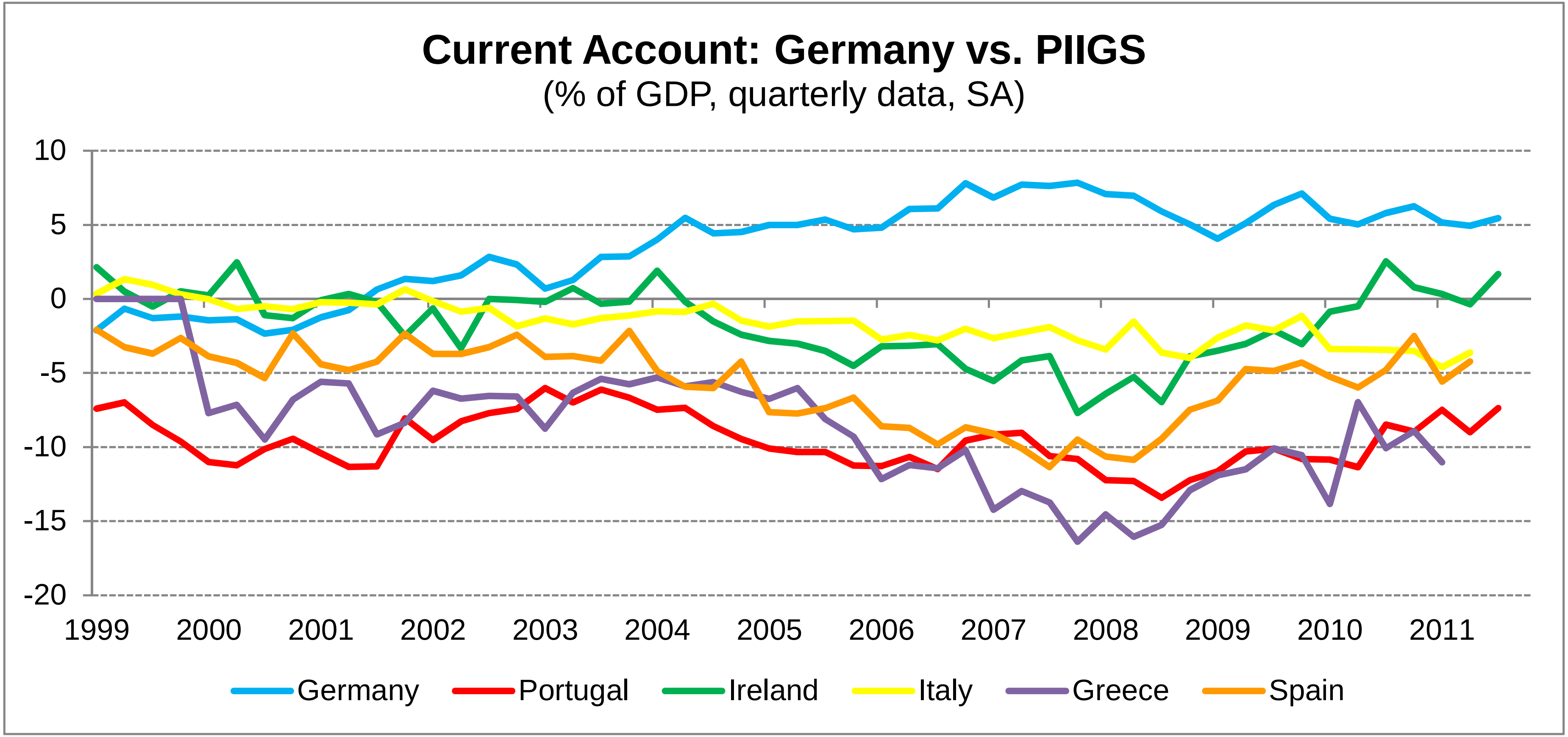
  - Most notably, this was the case for Ireland and Spain (Giavazzi and Spaventa, 2011).

- Data below from OECD, unless otherwise noted.



CPI: Germany vs. PIIGS
(quarterly data, yoy % change)
8
6
4
2
0
-2
-4
-6
-8
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Germany
Portugal
Ireland
Italy
Greece
Spain


Unit Labor Cost: Germany vs. PIIGS
(quarterly data, SA, index, 2005 = 100)
150
140
130
120
110
100
90
80
70
60
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Germany
Portugal
Ireland
Italy
Greece
Spain


Current Account: Germany vs. PIIGS
(% of GDP, quarterly data, SA)
10
5
0
-5
-10
-15
-20
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Germany
Portugal
Ireland
Italy
Greece
Spain

An Alternative Approach to Boosting Performance in a Monetary Union, Continued

- Attempts at deregulating markets (product and labor) are under way in PIIGS countries (for instance, Italy).
- Blanchard and Giavazzi (2003, *QJE*) give us a primer on the macroeconomics of product and labor market deregulation, but they focus only on long-run effects.
- Cacciatore and Fiori (2011) study the full dynamic transition following various forms of deregulation and its impact on business cycle transmission in a closed economy model.
- Cacciatore, Fiori, and Ghironi (2012) expand the analysis to deregulation in a monetary union and its implications for monetary policy.
  - In this paper, deregulation of product and labor markets depreciates the terms of trade and has a prolonged expansionary effect.
- Obviously, deregulation is not a business-cycle policy tool, but neither are infrequent adjustments of otherwise fixed ERs or significant changes in tax rates.

Devaluation versus Depreciation

- I deliberately refrained from referring to ER "devalutations" so far, intentionally using terms like "movement," "adjustment," or "weakening."

- The reason is that EGO are somewhat unclear on whether they are focusing on the ability of fiscal (or trade) policy to reproduce outcomes following devaluations of ER parities within an otherwise fixed ER regime (say, like Bretton Woods or the EMS—minus the bands around the parities), or if they are studying the ability of fiscal (or trade) policy to reproduce outcomes following depreciations of the ER under a flexible ER regime.

- Although there may be no distinction in this paper, these are different things in reality.

- As I read through the paper, I thought the best interpretation was that of one-time parity devaluations under an otherwise fixed ER (say, because of the desire to address a "fundamental disequilibrium" in a Bretton Woods-type environment) rather than reproducing flexible ER dynamics in response to regular business cycle shocks.

- I find the one-time-parity-devaluation scenario easier to relate to fiscal (or trade) policymaking because of the different institutional characteristics of fiscal (and trade) policy that make it harder to think of these tools as operating at regular business cycle frequency.

Devaluation versus Depreciation, Continued

- On the other hand, the numerical example EGO focus on is that of the (optimal) flexible ER movement in response to a standard business cycle (technology) shock, so I found myself wondering there.

- While there may be no way to distinguish scenarios in this paper, I think the issue would deserve a bit of discussion.

- It is also worth observing that discrete devaluations have become increasingly difficult to implement in orderly fashion in a world of high capital mobility, something that many countries learned the hard way and that, in Europe, contributed to the final push toward EMU.

- Would fiscal adjustments of the type that EGO consider be catalysts of speculative pressures of the kind Europe experienced in 1992-93?

- This issue seems relevant, at least when the fiscal devaluation entails a partial default on foreign bond holders.
  - Clarifying question for EGO on this case: What if debt is denominated in a common currency that is neither home or foreign (i.e., the euro)?

Conclusion

- This is a very nice paper that I view as the starting point of an interesting, important agenda.
- I thoroughly enjoyed reading it, and I look forward to reading the (hopefully shorter) follow-ups that I hope EGO will produce.