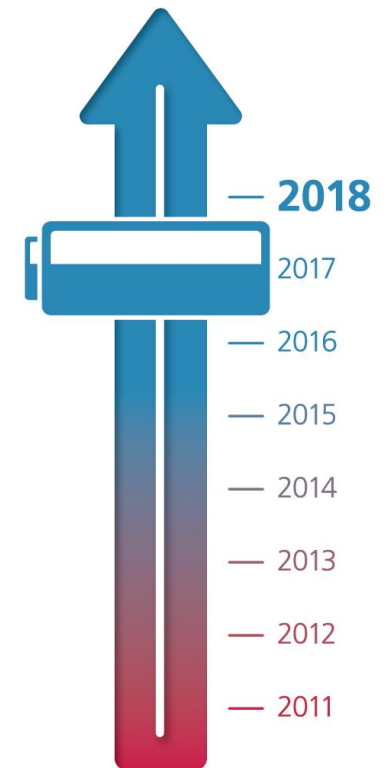


# The 2017 Euro Plus Monitor Into a higher gear

Brussels, 30 November 2017

**Holger Schmieding**  
Chief Economist  
+44 20 3207 7889  
[holger.schmieding@berenberg.com](mailto:holger.schmieding@berenberg.com)

**Florian Hense**  
European Economist  
+44 20 3207 7859  
[florian.hense@berenberg.com](mailto:florian.hense@berenberg.com)



**Economics**

A BURMESE SPRING: OUR SPECIAL REPORT ON MYANMAR

The  
Economist

MAY 25TH-31ST 2013

economist.com

How to save Obama's second term

China's wild west

Terror in Woolwich

Defence offsets, a bad idea

When feminists go topless

# THE SLEEPWALKERS

## A euro disaster waiting to happen



"Fifty Shades of Grey,  
without the sex"



"A snore de force!"



"Non-stop inaction!"



MAY 25TH - 31ST 2013

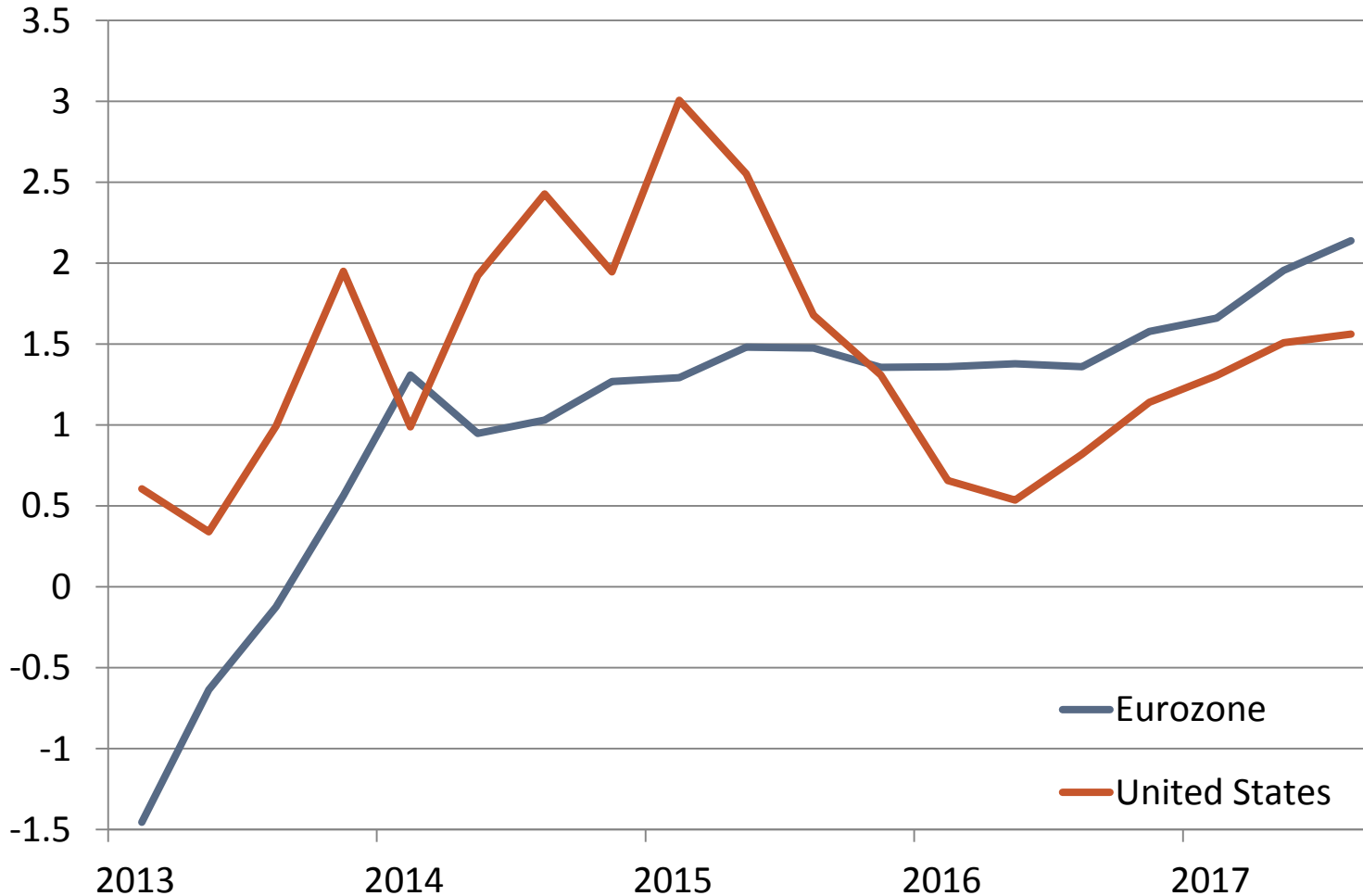
UK and Europe



**BERENBERG**  
PARTNERSHIP SINCE 1590

# Sleepwalking into disaster? Not quite

Annual growth rate in real GDP per capita since 2013



Annual growth rate in real GDP per capita.  
Sources: OECD

- When contagion spread from tiny Greece to Spain, Italy and the entire Eurozone in the summer of 2011 ...
- ... the Eurozone fell into a second recession while the US and UK continued to recover
- But shortly after the ECB outed itself as the lender of last resort in summer 2012, the Eurozone started to rebound
- The ECB had corrected the one fundamental flaw of the Eurozone, the lack of a designated lender of last resort
- Helped also by reforms, Eurozone growth has firmed

# The 2017 Euro Plus Monitor

Two separate rankings for all 28 EU member countries

## Ranking 1: Adjustment Progress

- Limited number of key measures of adjustment
- Focus: exports, fiscal adjustment, labour costs, structural reforms
- Includes 2017 projections beyond backward-looking hard data
- Describes the pace of change

## Ranking 2: Fundamental Health

- Broad array of indicators and long-term trends
- Focus: growth potential, competitiveness, fiscal sustainability, financial resilience
- Includes data that go beyond mere economics such as demographics and education
- Backward looking data
- Describes the underlying situation (=starting level)

This year, we extend our analysis of fiscal adjustment and sustainability by a rough **qualitative assessment of public finances**

# The 2017 Euro Plus Monitor: Into a Higher Gear

## Key results

**Eurozone is turning into a more balanced and potentially more dynamic economy**

**Countries with fundamental problems should adjust:** that is mostly the case

**A new wave of reforms?** Signs of progress in France, Belgium, and Austria; more adjustment in Finland

**The wave of reforms triggered by the euro crisis is over**

**Tough love has worked:** most of the erstwhile crisis countries are recovering well

**Political backlash:** as the sense of crisis has eased, the risk of reform reversals has risen

**Success breeds complacency:** Sweden needs to watch out. Europe needs to use the good times for further reforms on the national and the EU/Eurozone level.

**Italy** does not live up to the hopes Renzi raised with his 2015 labour market reforms

**Brexit doesn't pay:** The United Kingdom has nothing to gain from leaving the EU

# Fundamental health: no major change in 2017

## Fundamental health indicator

Rank		Country	Total score			Growth			Competitiveness			Fiscal sustainability			Resilience		
			2017	Change	2016	2017	Change	2016	2017	Change	2016	2017	Change	2016	2017	Change	2016
1	1	Estonia	7.5	0.0	7.4	7.1	0.1	7.0	6.2	0.1	6.2	8.4	-0.2	8.6	8.2	0.2	8.0
2	2	Czech Republic	7.4	0.0	7.4	7.3	0.0	7.2	7.3	0.0	7.4	8.0	0.0	8.0	7.1	-0.1	7.2
3	5	Malta	7.3	0.2	7.1	7.1	0.1	7.1	7.4	0.4	7.0	6.7	0.2	6.5	8.1	0.3	7.8
4	4	Germany	7.3	0.0	7.3	6.3	0.0	6.3	8.2	0.1	8.2	7.0	0.0	7.0	7.7	-0.1	7.8
5	3	Luxembourg	7.2	-0.2	7.4	6.7	0.0	6.6	6.6	-0.1	6.8	8.9	-0.3	9.3	6.7	-0.2	7.0
6	6	Netherlands	7.1	0.1	7.0	7.2	0.1	7.1	7.7	0.0	7.6	7.0	-0.2	7.2	6.4	0.3	6.1
7	7	Slovakia	7.0	0.1	6.9	5.9	0.1	5.8	7.2	0.0	7.2	7.4	0.1	7.3	7.4	0.2	7.2
8	8	Lithuania	6.6	-0.1	6.7	6.1	0.0	6.1	6.5	0.0	6.5	7.7	-0.3	7.9	6.4	-0.1	6.4
9	9	Ireland	6.6	0.0	6.6	7.4	0.1	7.3	7.3	-0.4	7.7	7.2	0.2	7.0	4.6	0.1	4.5
10	10	Sweden	6.6	0.0	6.6	7.4	0.0	7.4	4.6	0.0	4.6	7.0	-0.1	7.1	7.2	0.0	7.2
11	13	Poland	6.5	0.0	6.4	6.1	0.0	6.1	6.7	-0.1	6.8	6.8	0.0	6.8	6.2	0.1	6.1
12	12	Romania	6.4	0.0	6.4	4.9	0.1	4.8	6.1	0.3	5.8	7.3	-0.3	7.6	7.4	-0.1	7.5
13	14	Denmark	6.4	0.1	6.3	6.3	0.1	6.2	5.2	0.0	5.2	6.8	-0.2	7.0	7.4	0.4	6.9
14	11	Latvia	6.4	-0.1	6.4	6.2	0.0	6.2	4.9	-0.1	4.9	8.1	-0.2	8.3	6.3	0.1	6.3
15	16	Slovenia	6.3	0.2	6.1	6.2	0.3	5.9	5.9	0.2	5.7	6.0	-0.1	6.1	7.0	0.2	6.7
16	15	Hungary	6.2	0.0	6.2	5.5	0.1	5.4	7.3	0.0	7.3	5.4	-0.4	5.8	6.5	0.2	6.3
17	17	Bulgaria	6.0	0.0	6.0	5.0	0.1	5.0	5.5	0.0	5.5	7.1	0.1	7.0	6.4	0.0	6.4
18	18	United Kingdom	5.7	0.0	5.7	5.7	0.0	5.7	5.4	-0.1	5.5	6.9	0.4	6.5	4.7	-0.2	4.9
19	19	Austria	5.6	0.0	5.5	6.0	0.1	5.9	4.6	-0.1	4.7	5.2	0.0	5.2	6.4	0.2	6.2
20	20	Belgium	5.4	0.1	5.3	5.6	0.0	5.5	6.7	0.2	6.6	4.0	0.1	3.9	5.2	0.0	5.2
21	21	Finland	5.1	0.1	5.0	5.6	0.1	5.5	3.3	0.3	3.0	5.9	-0.3	6.2	5.7	0.3	5.5
22	24	Portugal	4.9	0.2	4.7	3.7	0.1	3.6	5.8	0.1	5.7	5.0	0.0	5.0	5.1	0.5	4.6
23	22	Croatia	4.9	0.0	4.9	3.9	0.1	3.7	4.0	-0.1	4.0	4.6	-0.2	4.8	7.0	0.1	6.9
24	23	France	4.8	0.0	4.8	5.0	0.0	5.0	4.5	-0.1	4.6	4.4	0.0	4.4	5.3	0.1	5.2
25	25	Spain	4.7	0.1	4.7	4.3	0.1	4.2	4.5	-0.1	4.6	5.4	0.0	5.4	4.8	0.2	4.5
26	26	Italy	4.4	0.0	4.4	3.5	0.1	3.4	4.1	0.0	4.0	4.5	-0.2	4.7	5.7	0.2	5.5
27	27	Greece	4.0	0.1	3.9	1.6	0.0	1.5	4.9	0.2	4.7	5.0	-0.4	5.4	4.5	0.4	4.1
28	28	Cyprus	3.6	0.0	3.6	3.3	0.1	3.2	3.3	0.0	3.3	5.3	0.0	5.3	2.5	0.0	2.5
		EZ19	5.8	0.0	5.8	5.2	0.1	5.2	6.1	0.0	6.1	5.9	0.0	6.0	6.1	0.1	6.0

- Estonia tops the ranking
- Cyprus, Greece and Italy face the most serious long-run problems
- Reflecting previous adjustment efforts and the ongoing recovery, Greece, Spain and Portugal raise their score
- Reform countries at periphery except Ireland remain in bottom third of fundamental health
- All countries among the bottom twelve manage to either raise or maintain their scores
- The three countries with small slippage (Luxembourg, Lithuania, Latvia) maintain results above the eurozone average and UK

Scores from 10 (best possible) to 0 (worst). The overall score is the average of four sub-scores for recent growth, competitiveness, fiscal sustainability and resilience to financial shocks. Source: Berenberg calculations

# Adjustment progress: the next stage

## Adjustment progress indicator

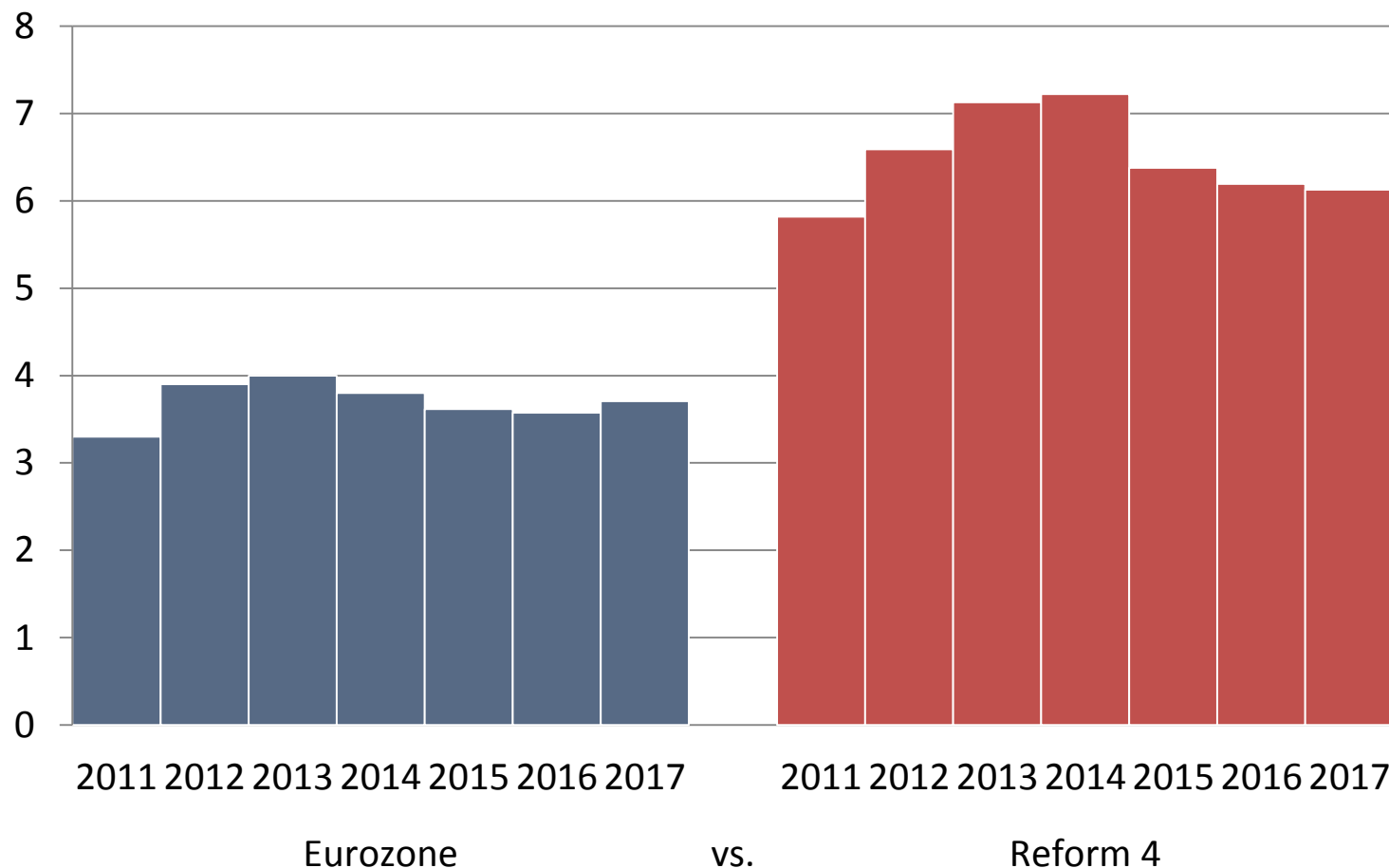
Rank		Country	Total score			External adj.			Fiscal adj.			Labour cost adj.			Reform drive		
			2017	Change	2016	2017	Change	2016	2017	Change	2016	2017	Change	2016	2017	Change	2016
1	1	Greece	7.4	-0.2	7.6	7.3	-0.1	7.4	6.9	-0.9	7.8	7.6	0.0	7.5	7.7	0.0	7.7
2	2	Ireland	6.9	0.0	6.8	5.9	-0.1	6.0	6.3	0.0	6.3	9.2	0.1	9.1	6.1	0.1	6.0
3	3	Latvia	6.1	-0.2	6.4	9.7	-0.3	9.9	5.5	-0.2	5.6	3.2	-0.3	3.5	n.a.	n.a.	n.a.
4	4	Romania	5.9	-0.2	6.1	7.1	-0.2	7.3	5.8	-0.2	6.0	4.9	-0.1	5.0	n.a.	n.a.	n.a.
5	5	Spain	5.9	-0.1	6.0	7.3	0.2	7.1	5.2	0.2	5.0	5.6	0.3	5.3	5.6	-0.9	6.5
6	7	Cyprus	5.6	0.0	5.6	3.8	0.1	3.7	5.5	-0.3	5.9	7.4	0.1	7.3	n.a.	n.a.	n.a.
7	8	Portugal	5.3	-0.1	5.4	6.3	0.3	6.0	4.6	0.4	4.2	5.0	-0.2	5.2	5.4	-0.8	6.3
8	6	Lithuania	5.3	-0.4	5.7	7.1	-0.6	7.7	7.0	-0.5	7.5	1.8	-0.3	2.0	n.a.	n.a.	n.a.
9	10	Estonia	5.1	-0.1	5.2	7.1	-0.4	7.5	2.7	-0.8	3.4	4.5	0.4	4.1	6.1	0.5	5.6
10	12	Malta	5.1	0.5	4.6	7.0	0.9	6.1	4.6	0.3	4.3	3.7	0.2	3.5	n.a.	n.a.	n.a.
11	9	Croatia	5.1	-0.4	5.4	6.2	0.1	6.0	3.1	-1.2	4.3	5.9	0.0	5.9	n.a.	n.a.	n.a.
12	11	Slovenia	5.0	0.0	5.0	7.4	0.6	6.9	5.7	0.0	5.7	4.6	0.4	4.2	2.3	-1.1	3.4
13	13	Slovakia	4.5	0.0	4.5	7.1	-0.1	7.2	4.7	0.3	4.4	1.9	-0.1	2.1	4.3	0.1	4.3
14	15	Czech Republic	4.2	-0.1	4.3	6.3	0.4	5.9	5.5	0.2	5.3	1.0	-0.4	1.4	4.1	-0.6	4.6
15	18	Netherlands	4.1	0.2	3.9	5.5	0.3	5.2	4.2	-0.2	4.4	3.1	0.2	2.9	3.6	0.5	3.1
16	17	Bulgaria	4.1	0.0	4.1	8.4	-0.5	8.9	3.8	0.8	3.1	0.0	-0.2	0.2	n.a.	n.a.	n.a.
17	20	United Kingdom	4.0	0.3	3.7	2.5	0.4	2.1	6.8	0.5	6.3	2.5	0.2	2.4	4.2	0.1	4.1
18	14	Hungary	3.9	-0.4	4.3	6.7	-0.3	7.0	2.6	0.2	2.4	3.0	-0.6	3.6	3.4	-0.9	4.2
19	16	Poland	3.9	-0.3	4.2	5.2	-0.2	5.5	5.6	0.2	5.4	0.4	-0.1	0.5	4.5	-0.8	5.3
20	19	Italy	3.8	-0.1	3.9	4.0	0.1	3.9	3.4	-0.2	3.6	3.6	0.3	3.3	4.3	-0.6	4.8
21	23	Belgium	3.4	0.5	2.9	4.4	0.4	4.0	2.6	0.4	2.2	2.9	0.3	2.6	3.5	0.9	2.6
22	21	Denmark	3.3	-0.1	3.4	3.8	0.2	3.6	2.4	0.0	2.5	3.4	-0.1	3.5	3.3	-0.7	4.0
23	22	Luxembourg	3.1	-0.2	3.3	4.3	0.1	4.3	2.7	-0.7	3.3	3.9	-0.3	4.2	1.6	0.2	1.4
24	24	France	3.0	0.2	2.8	2.2	-0.1	2.3	3.3	0.1	3.2	1.6	-0.1	1.7	4.8	0.8	4.0
25	25	Austria	2.9	0.3	2.6	3.3	0.4	2.9	2.7	-0.1	2.8	0.6	0.1	0.5	5.2	0.9	4.3
26	27	Finland	2.9	0.5	2.3	1.3	0.5	0.9	1.7	-0.1	1.8	4.6	1.8	2.8	3.8	-0.1	3.9
27	26	Germany	2.4	0.1	2.3	3.4	0.0	3.4	2.7	-0.3	3.0	0.4	-0.2	0.6	3.2	0.8	2.4
28	28	Sweden	2.2	-0.1	2.3	2.2	-0.1	2.3	2.1	0.0	2.1	1.7	0.2	1.5	2.8	-0.3	3.2
		EZ19	3.7	0.1	3.6	4.3	0.2	4.1	3.7	0.0	3.7	2.6	0.1	2.6	4.2	0.3	3.9

Scores from 10 (best possible) to 0 (worst). The overall score is the average of four sub-scores for external adjustment, fiscal repair, labour cost adjustment and structural reforms. Source: Berenberg calculations

- Europe has entered a new stage of adjustment
- Erstwhile euro crisis countries have largely completed their painful programmes of austerity and reforms
- Some structurally challenged members (France, Belgium, Austria and Finland) have raised their scores
- Although the evidence is still very tentative, the signs of progress in these countries raise the hope that the current cyclical upswing could be the prelude to a longer period of significant growth
- Of course, serious risks remain. These include the risk of reform reversals at the euro periphery and political instability in Italy

# Adjustment progress: small eurozone rebound

Cumulative adjustment progress in the Eurozone since 2009



Cumulative adjustment progress, scores from 10 (best possible) to 0 (worst). The overall score is the average of four sub-scores for external adjustment, fiscal repair, labour cost adjustment and structural reforms. The Adjustment Progress Indicator for 2015, 2016 and 2017 also includes indicators for the quality of fiscal adjustment. Reform 4: Greece, Ireland, Portugal and Spain. Source: Berenberg calculations

- We regularly track how the 28 EU members are adjusting on four separate criteria:
  - (1) External adjustment
  - (2) Fiscal repair
  - (3) Labour costs
  - (4) Structural reforms
- We aggregate the results into one indicator which sums up the cumulative adjustment progress since 2009 on a scale of 10 (best possible) to 0 (worst).
- The reform countries remain in the lead, but adjustment efforts slackened visibly in 2015 and 2016
- The adjustment progress indicator for the eurozone as a whole improved slightly in 2016, helped by France, Belgium, Austria and Finland.



# Waves of change

Europe can adjust – it has done so in the past and is doing it again

## Past waves of change

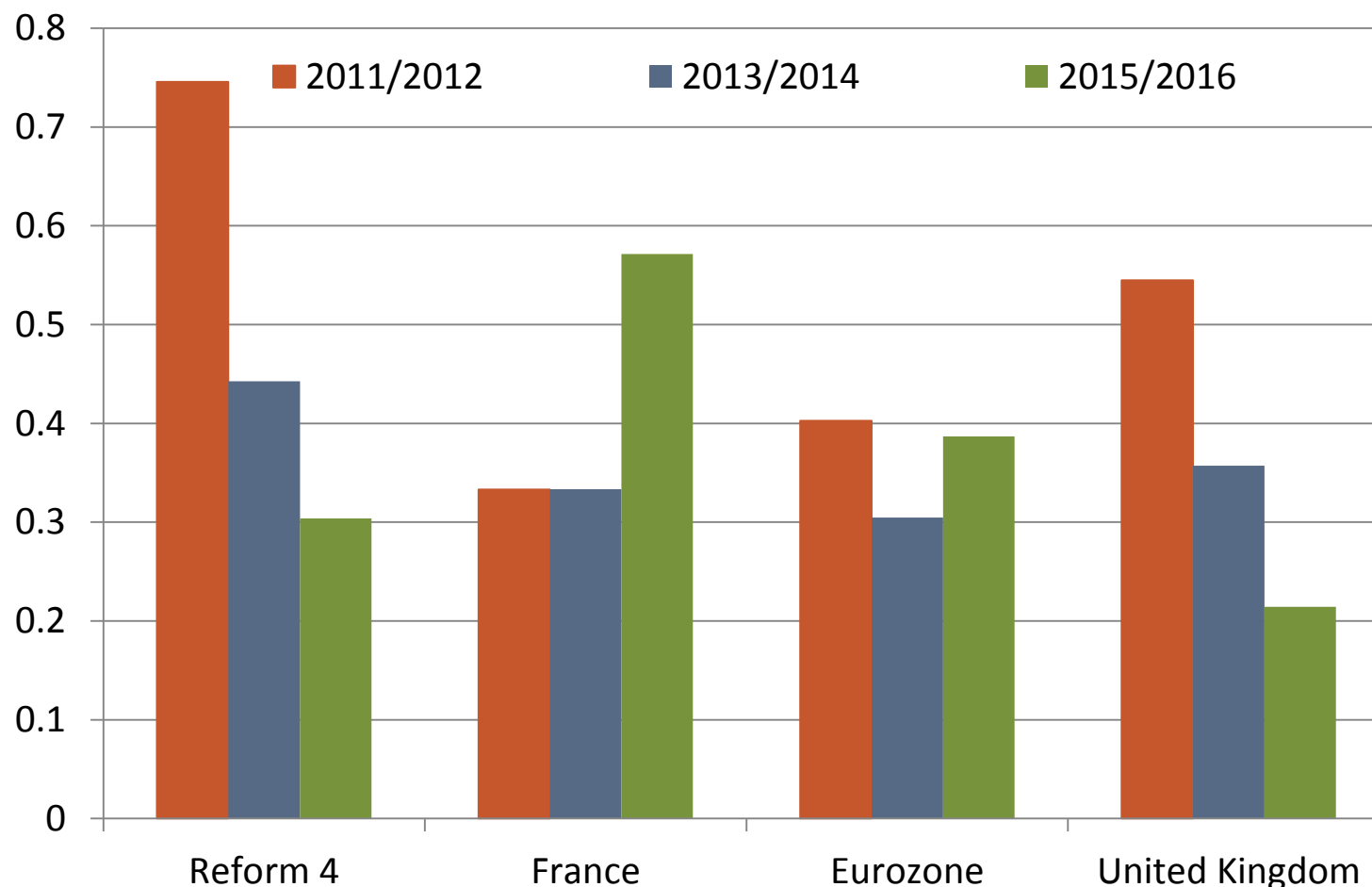
- **UK turnaround** under Margaret Thatcher after 1979 - from “sick man of Europe” to growth leader
- Transformation of **post-communist Europe** after 1989 – the biggest challenge
- **Scandinavian reforms** after 1990 financial crisis – making the Nordic model work
- German “**Agenda 2010**” reforms of 2004 – from “sick man of Europe” to pillar of strength

## New waves of reform visible in the Adjustment Progress Indicator

- **Baltic countries** after their 2007 financial crisis – coping with the fallout from the bust
- **Euro crisis countries** (Greece, Ireland, Portugal, Spain, Cyprus) from 2010 onwards
- **The next stage:** Signs of progress in France, the big eurozone laggard; also some improvement in Austria, Belgium and Finland

# Adjustment progress (I): reforms – France moves up

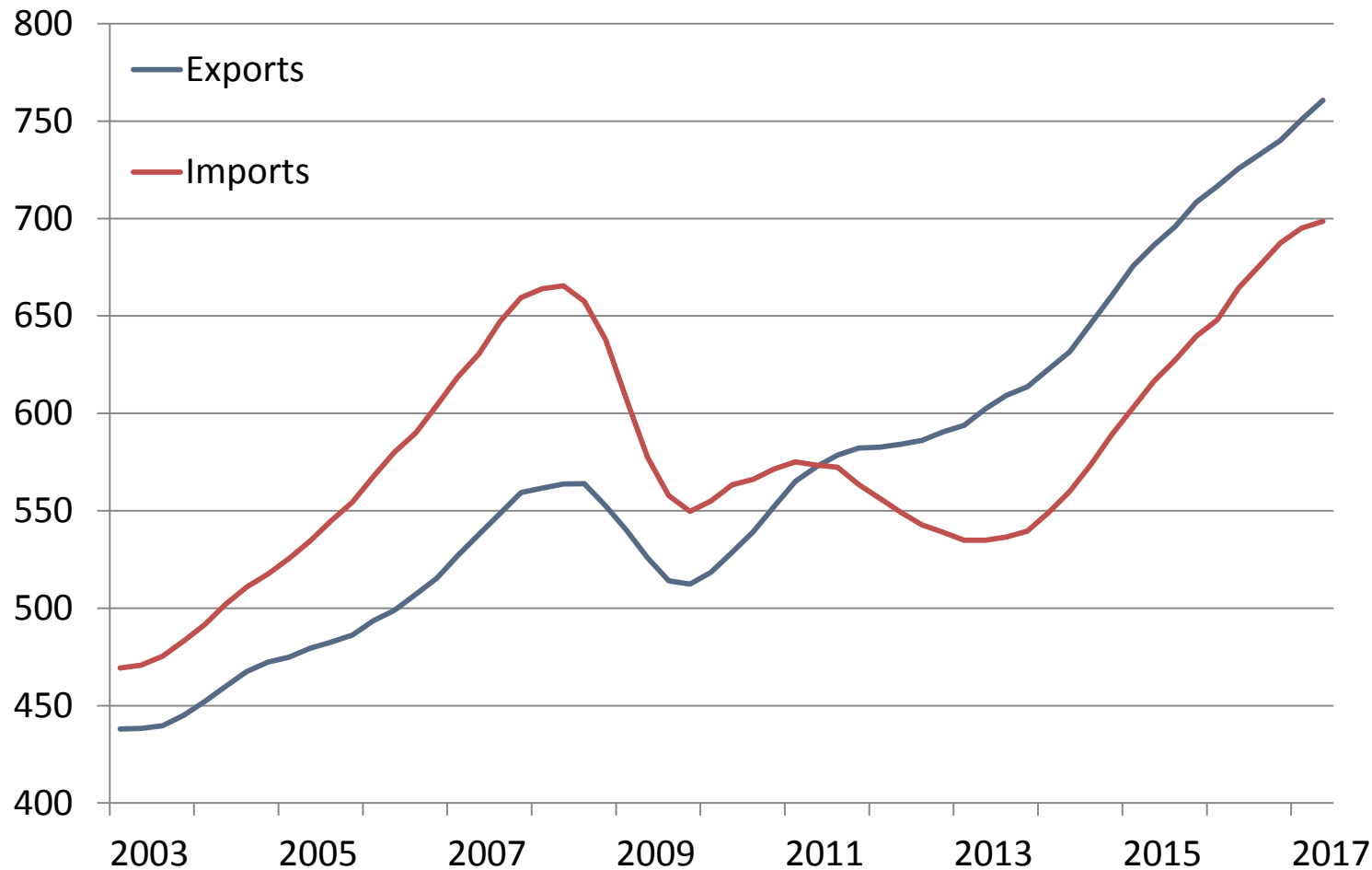
## Responsiveness to OECD reform proposals



- Who is implementing pro-growth structural reforms?
- The OECD regularly makes detailed reform proposals
- Once a year, the OECD checks whether countries are heeding such advice
- Under the pressure of crisis, the euro periphery reformed at a rapid pace
- The pace slackened a lot in 2013/14 and 2015/16
- France stepped up its efforts noticeably in 2015/2016. Macron plans more reforms
- For the United Kingdom, a growing reluctance to pursue economic reforms adds to Brexit risks

# Adjustment progress (II): external adjustment

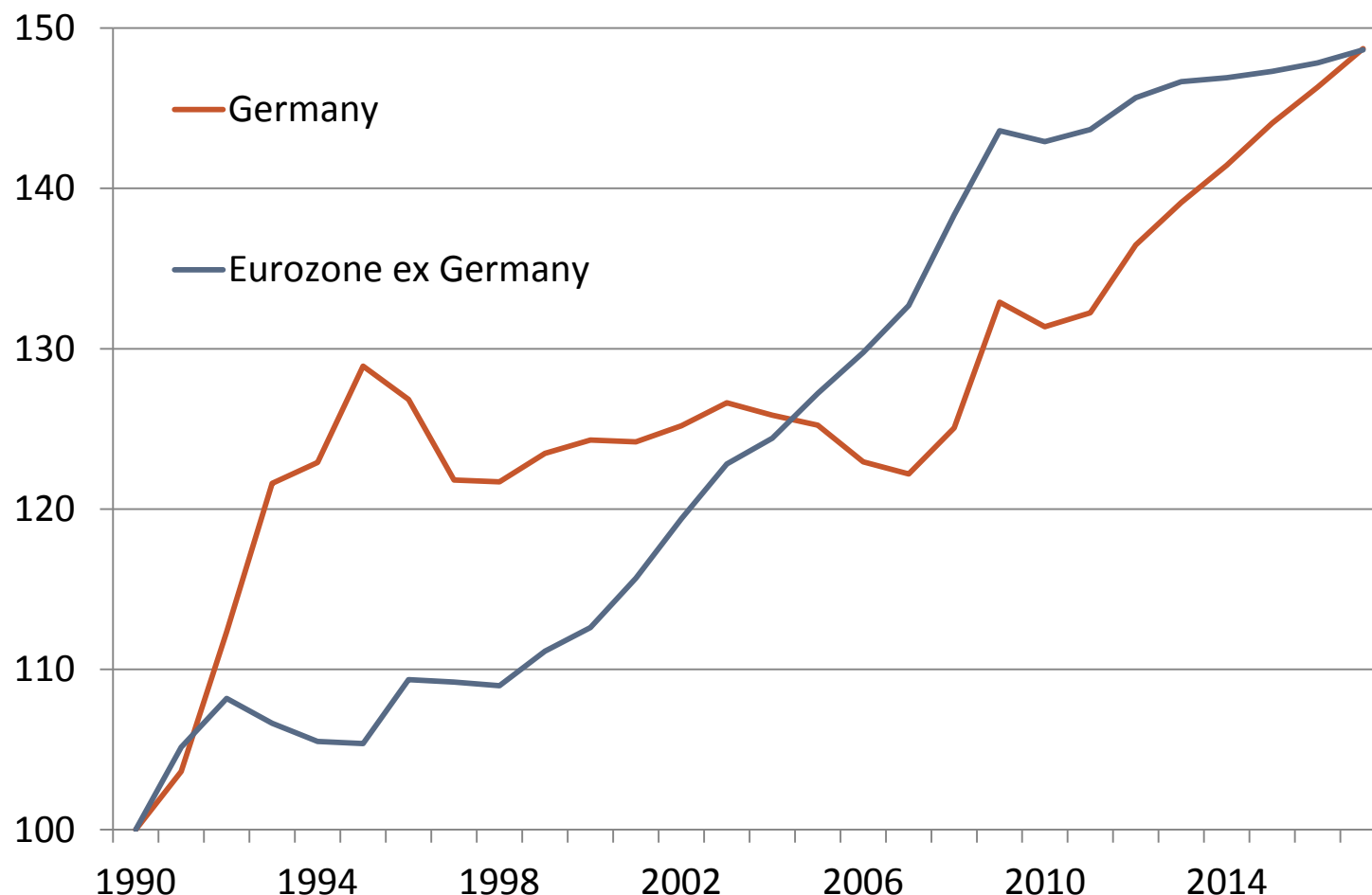
## Turnaround in the external account at the Periphery



- The euro crisis countries have turned their external accounts around very nicely
- They export more than they import
- Taken together, the erstwhile crisis countries no longer need to import capital
- Imports have picked up again since late 2013. This is the sweet taste of success.
- A further rise in exports and a rebound in imports while maintaining the external surplus needed to rebuild credibility on global markets: that is how it should be
- Greece trails behind. So far, it has adjusted more through a plunge in imports than a rise in exports.

# Adjustment progress (III): Labour costs

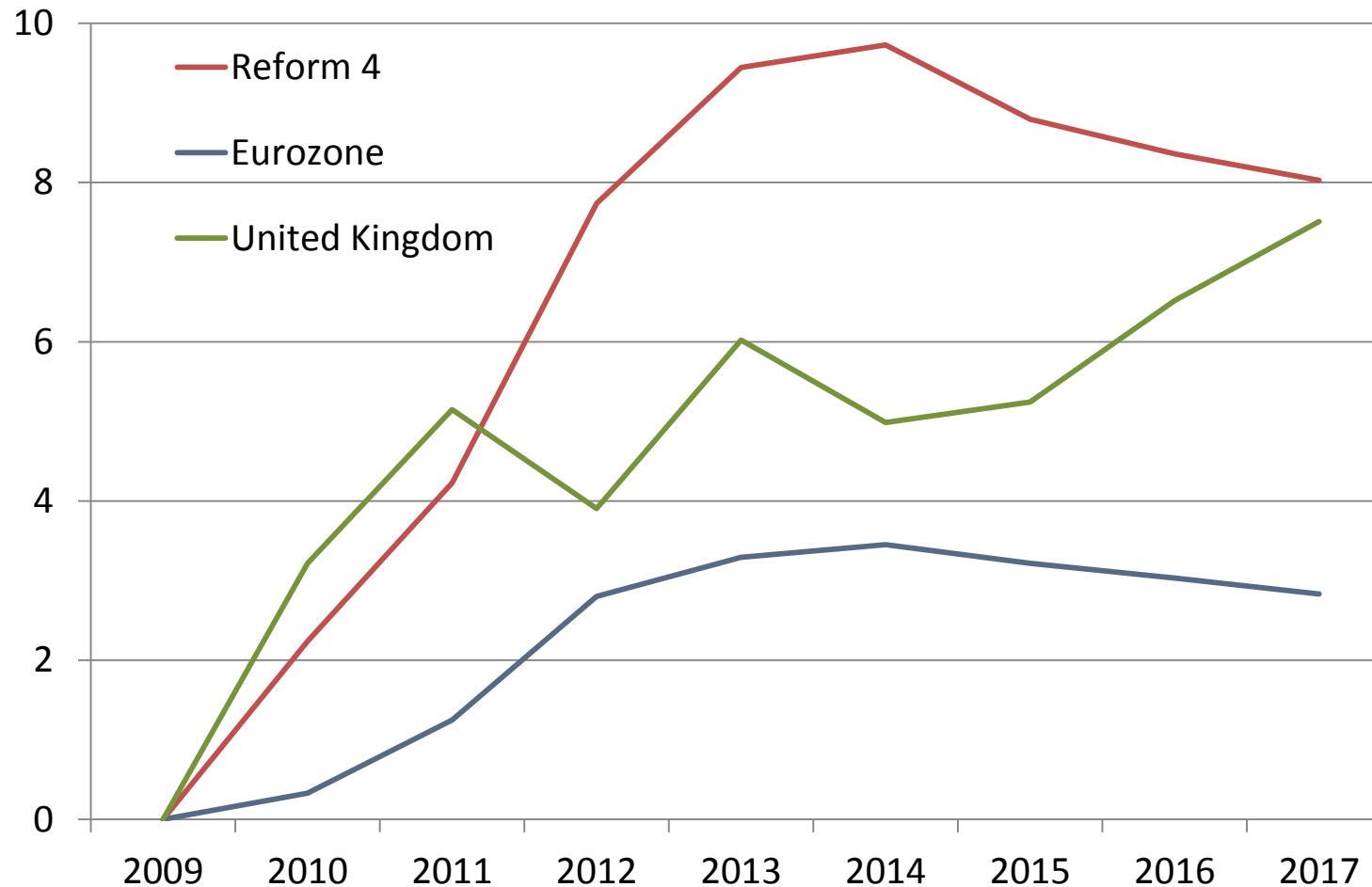
Unit labour costs: Germany versus Eurozone ex Germany



- In the 1990s, Germany refused to deal with the costs of unification. It turned into the “sick man of Europe”. Excessive labour costs contributed to the malaise.
- After a long period of wage restraint and the reforms of 2004, Germany became competitive again...
- ...while the most of the eurozone let its labour costs surge until 2009.
- The eurozone, especially the periphery, has now corrected its excesses.
- In relative terms, Germany and the eurozone ex Germany are back to 1990.

# Adjustment progress (IV): fiscal repair

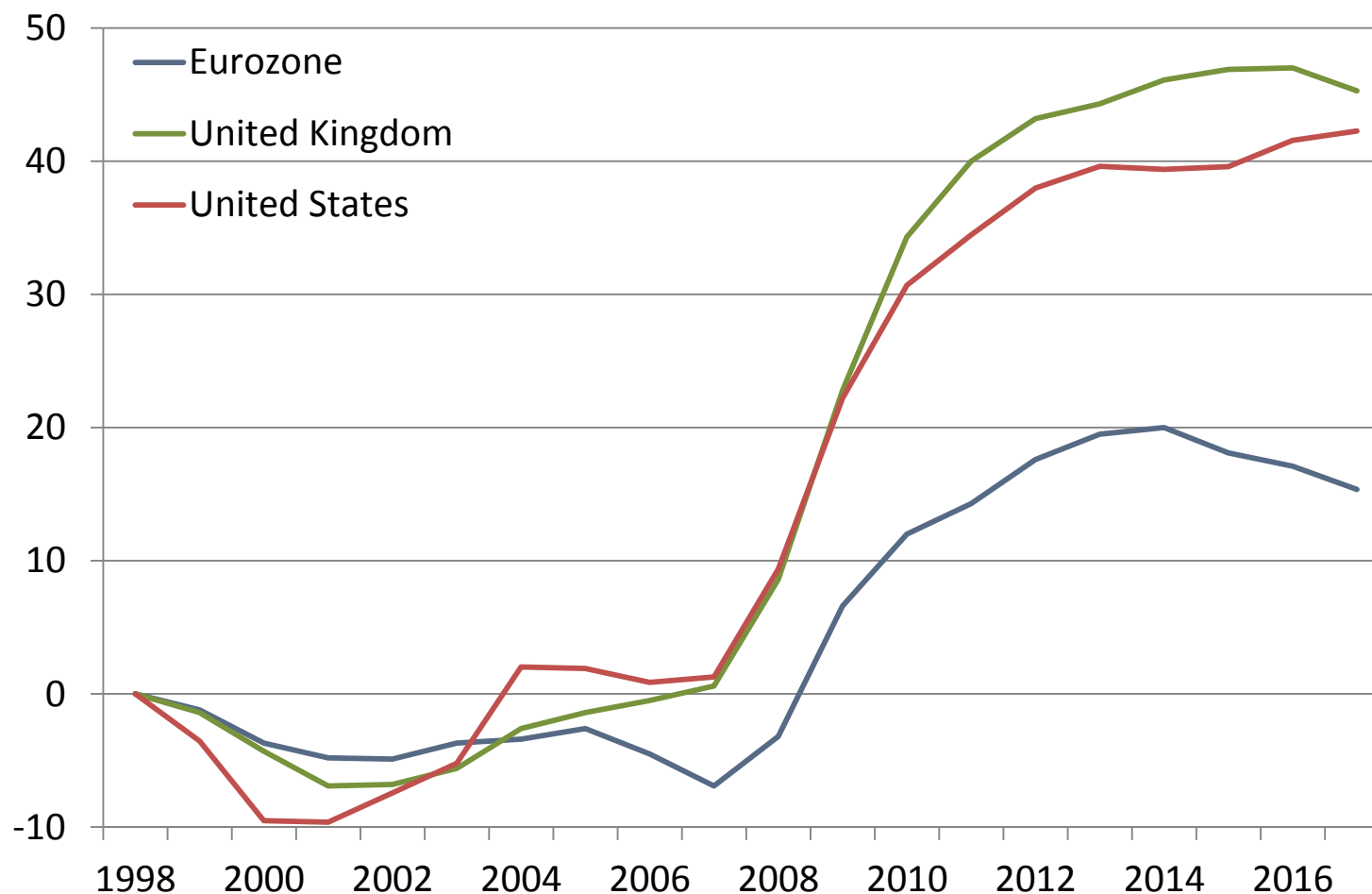
Cumulative change in underlying primary fiscal balance since 2009, in % of GDP



- The countries that had to ask for external help early have tightened their belts significantly
- With the crisis easing, they have relaxed the reins slightly in 2015 and 2016
- Despite the recent slippage, the cumulative adjustment remains impressive
- The eurozone as a whole has granted itself a small fiscal stimulus in the last three years
- Expect more of the same for the eurozone average in 2018
- The fiscal adjustment in the UK has continued, but is more challenging amid Brexit. A special effect exaggerates the UK's 2017 improvement.

# Fiscal policy: Eurozone prudence

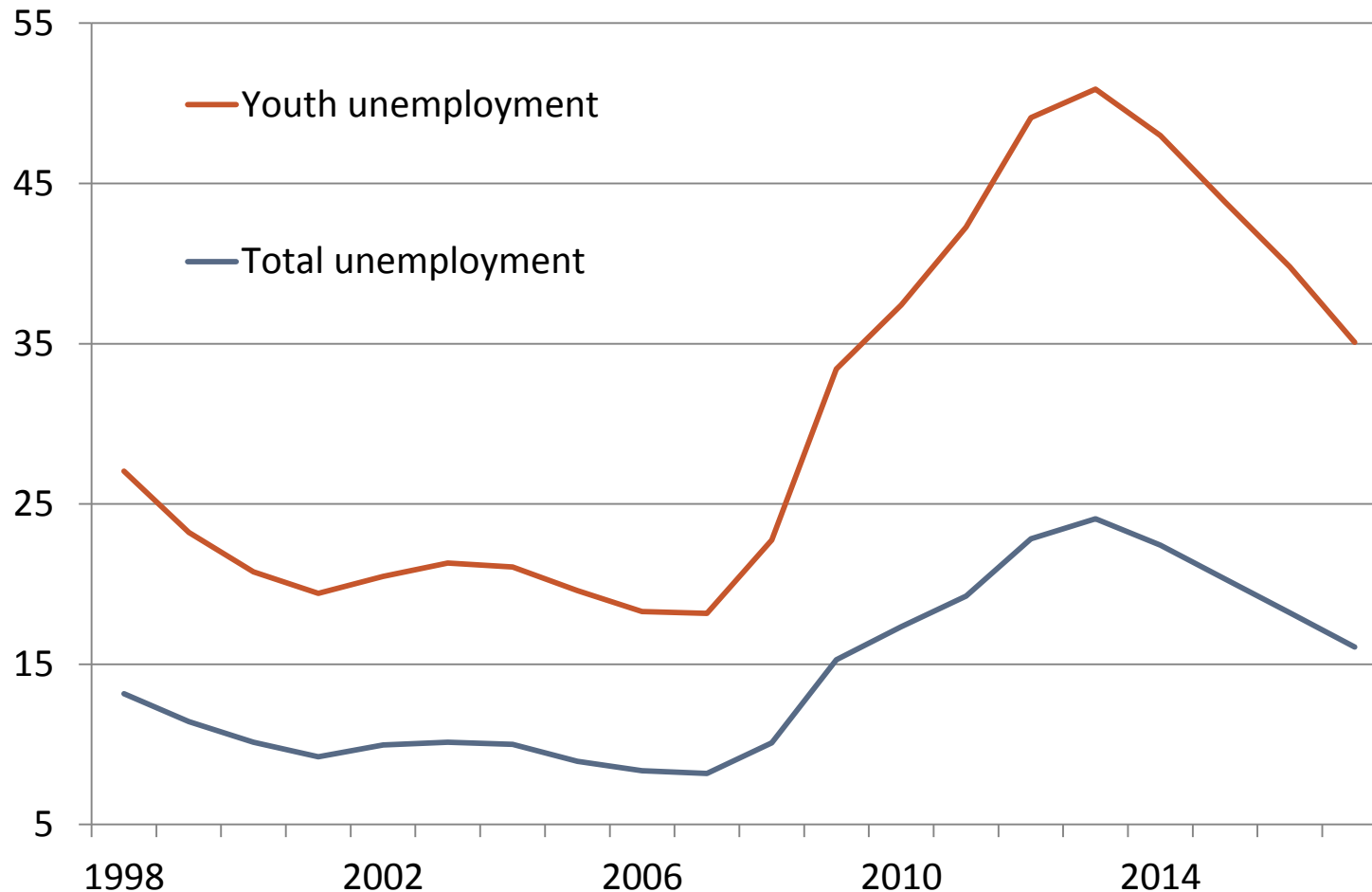
Change in public debt ratio since start of euro, in % of GDP



- After Lehman, the debt ratio surged much less in the Eurozone than in the US and the UK. Japan would be off the charts.
- Until 1998, the UK had been more prudent than the future Eurozone. Since then, it's the other way round.
- Less aggressive monetary policy and faster fiscal repair explain why Eurozone demand growth has lagged behind the US and UK since 2011
- But policy is now different. In 2013, the Eurozone returned to growth around its 1.5% sustainable rate.
- Brexit adds to the UK's fiscal problems – that's not in the chart yet.

# Reaping the rewards: more jobs at the periphery

## Unemployment is falling fast in the reform countries

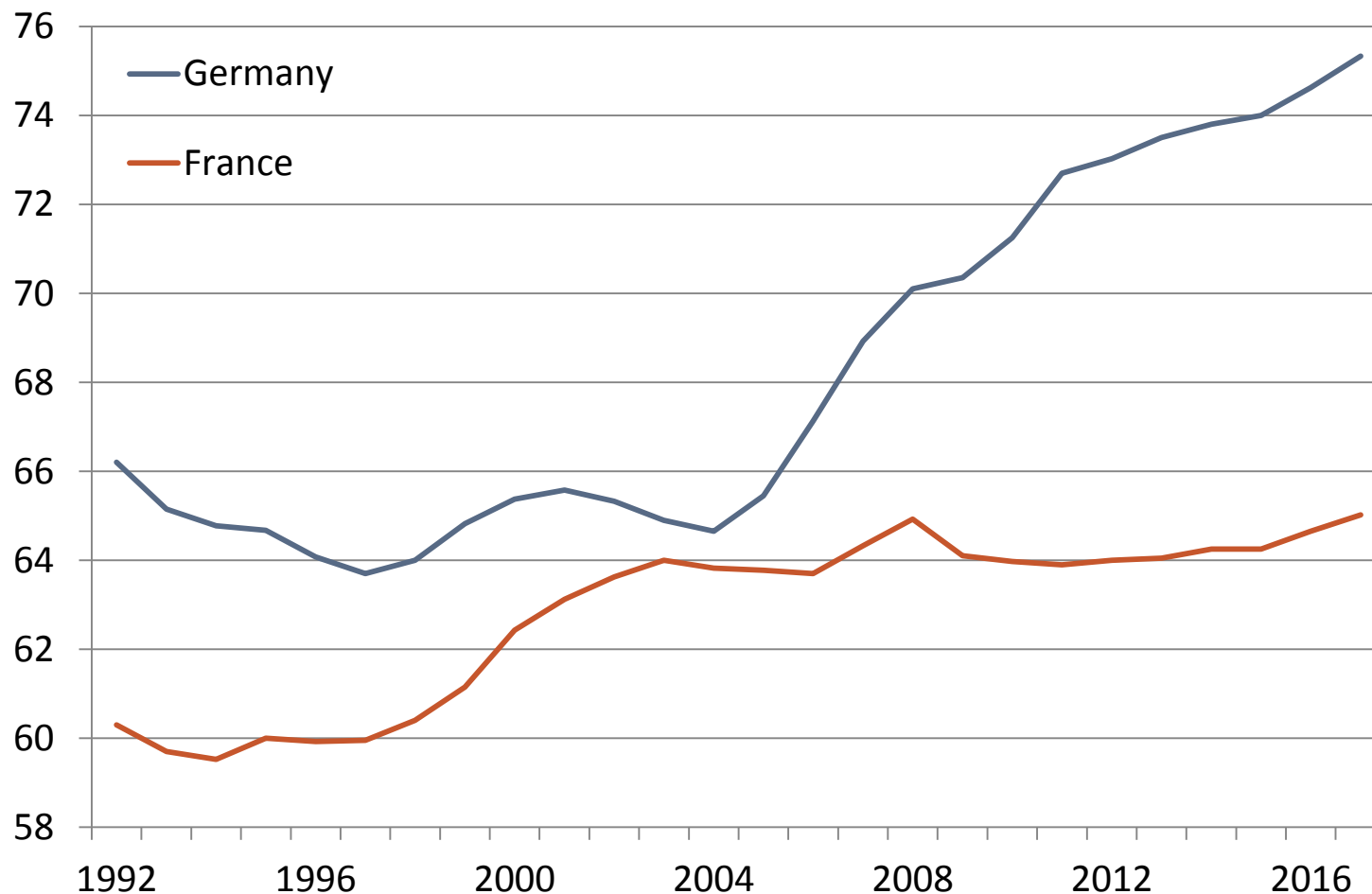


Unemployment rates in % of labour force. Youth unemployment among the under 25 year olds; total unemployment for age group 15-74 years. Reform 4 countries are Greece, Ireland, Portugal and Spain. Source: Eurostat

- The worst is over for the labour market of the reform countries
- Since the peak in February 2013, the number of unemployed in Greece, Ireland, Portugal and Spain has fallen by 3.0mn to a still-high 5.5mn
- Youth unemployment remains very high, with a total of 800k. But the number of unemployed aged 16-24 age has declined by 600k since the peak.
- The labour market reforms support sustainable jobs growth
- The challenge now: preventing reform reversals.

# France: a golden decade ahead?

## French and German employment: big gap means big potential



Employment in percent of working age population (16-64 years).  
Source: Eurostat.

- President Macron promises to deliver the labour market, pension and public sector reforms that France needs
- Reforms matter. Think Thatcher, Schröder or Rajoy.
- Two cheers for the labour market reform of 22 September: Macron has started to deliver.
- To follow: unemployment insurance and pensions
- France is heading for a golden decade if Macron continues to deliver, as he probably will
- The current gap between German and French employment rates indicates the potential which France could unlock with its reforms



# Notes on the Brexit debate

The United Kingdom has nothing to gain from leaving the EU

**A place apart?** Few countries have scores closer to the eurozone average than the UK

**Fundamental health:** the UK ranks slightly below the eurozone because of its twin deficits

**Adjustment progress:** in line with the eurozone average

**Strong points:** The UK gets tops marks for microeconomics despite gripes about EU regulations

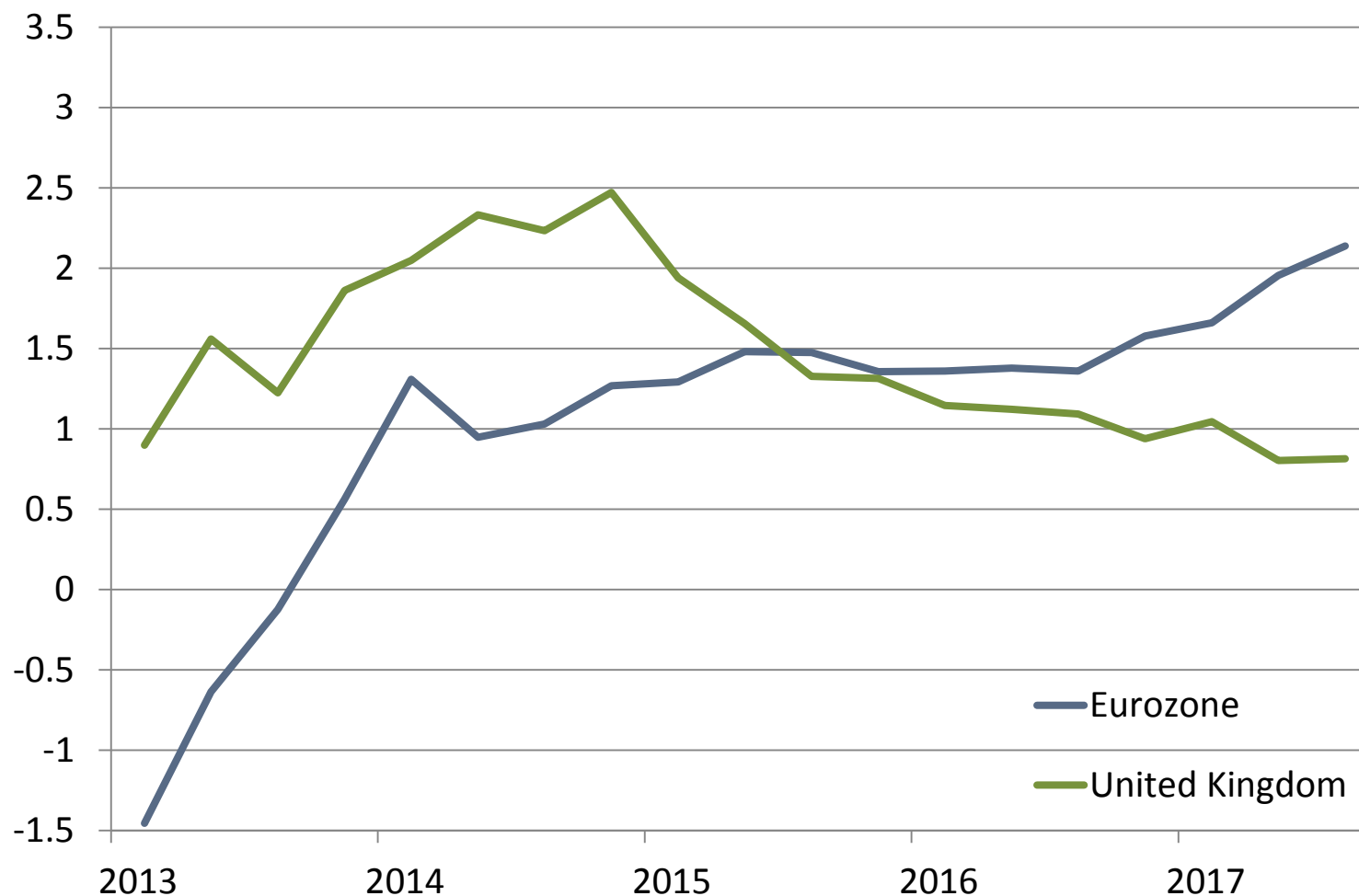
**Weak points:** macroeconomic imbalances which reflect domestic policies, not EU regulations

**External adjustment:** Despite some devaluation-related progress, UK does even worse than Italy

**Competitiveness:** the UK has a problem to start with; putting access to its major market at risk looks foolhardy

# Brexit: economic damage for the UK

Annual growth rate in real GDP per capita since 2013

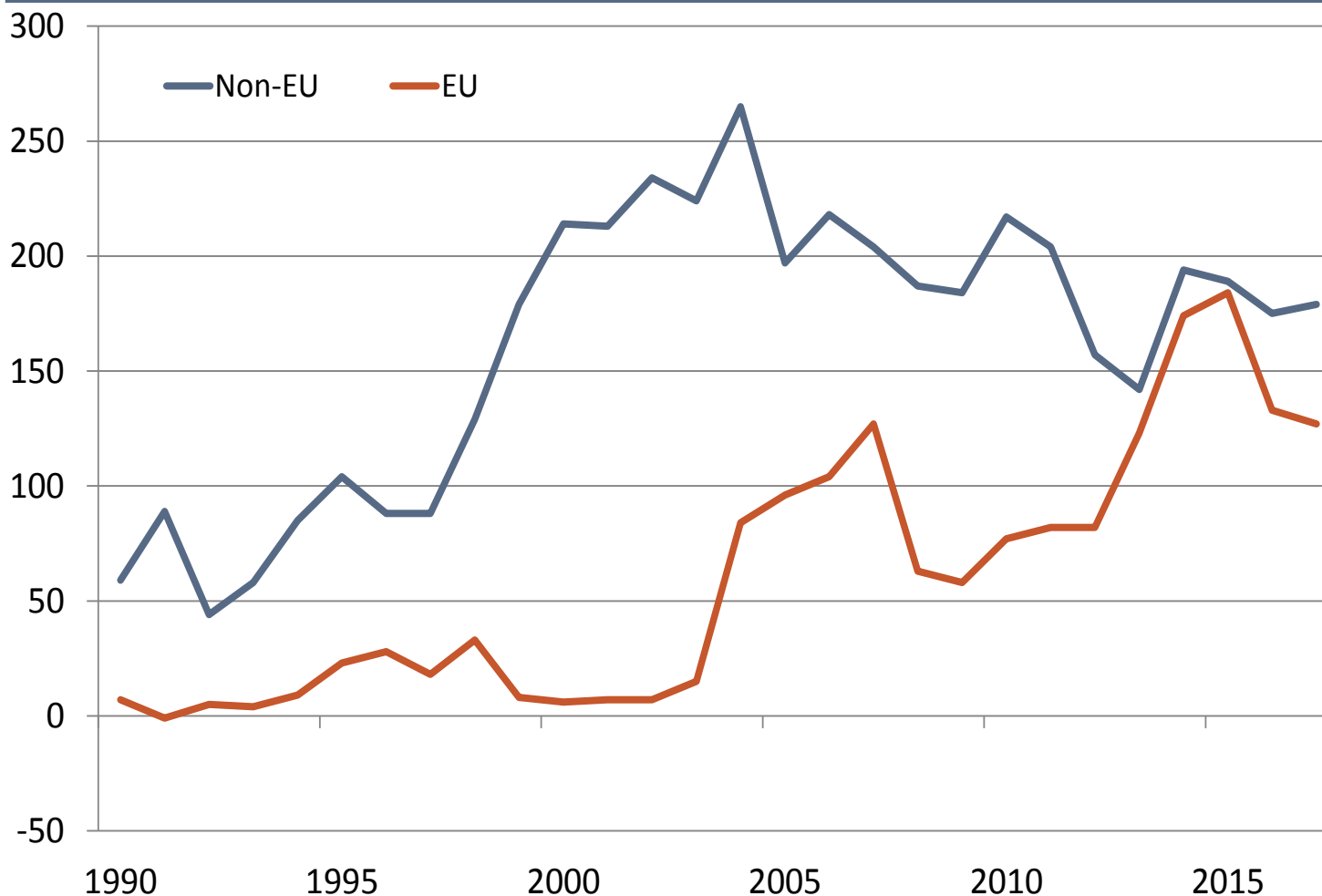


Annual growth rate in real GDP per capita.  
Sources: OECD

- Trend growth down from 2.2% pre-Brexit to 1.8% (soft Brexit) or 1.5% (hard Brexit)
- Weaker investment, slower population growth and limited access to the EU market for services will reduce the UK's potential growth rate
- Weaker trend growth exacerbates fiscal problems

# People vote with their feet: UK net migration

Net long-term migration into the UK (000s)



Annual data. 2016 data are still provisional.  
Source: ONS.

- Will the UK and EU manage to agree a trade deal? It will be difficult.
- The UK could face a tough choice between a hard Brexit or accept the potentially unfavourable terms – maintaining free movement of labour – of a transitional deal largely set by the EU27
- In 2016, net migration from the EU into the UK fell for the first time in seven years
- Further falls in EU net migration could make this choice easier

# Outlook for European reforms

## Which reform ideas make sense?

New funds, rules or institutions need to be measured against 4 criteria: do they (i) improve efficiency, (ii) provide incentives for suitable policies, (iii) safeguard against systemic risks, and/or (iv) provide a buffer against temporary asymmetric shocks. They must also economise on the use of scarce political capital.

**European Defence Fund?** Yes, if it provides incentives to reduce duplication of systems.

**Fiscal transfers?** No need for further permanent transfers beyond those in the EU budget already.

**Joint unemployment insurance** could set the wrong incentives. Better: a joint scheme to **subsidise temporary unemployment on the job** in case of sharp sudden cyclical downturns (akin to the German “Kurzarbeitergeld”).

**European Monetary Fund** to take over the role of the European Stability Mechanism. Running support programmes without IMF and ECB involvement in a troika or quadriga makes sense.

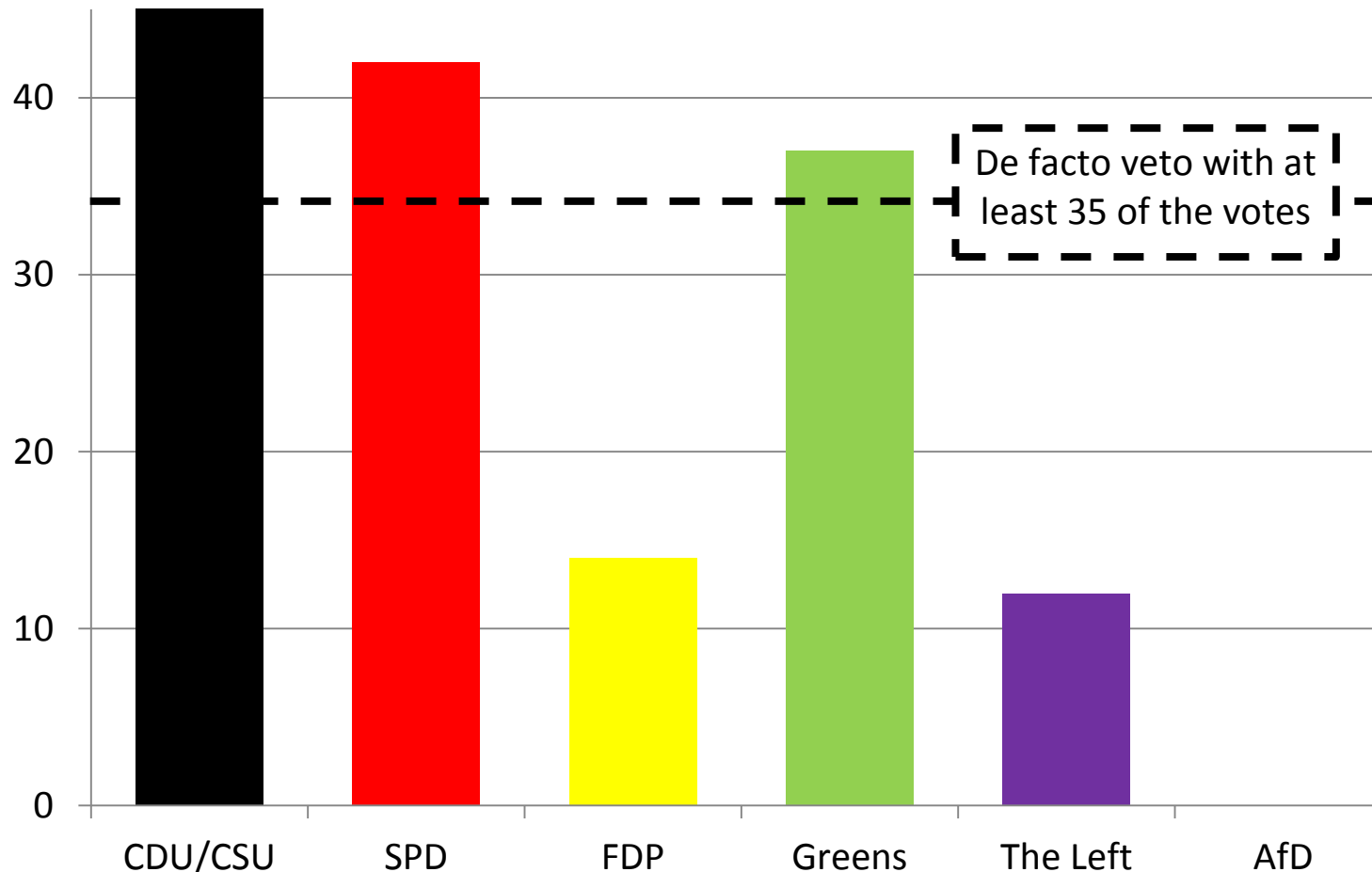
**Anti-cyclical buffer?** Yes, with a governance structure similar to that of the ESM/EMF. While the ESM/EMF deal with systemic crises, the anti-cyclical buffer could offer subsidised loans to countries hit by an asymmetric shock that does not pose a systemic risk.

**Eurozone budget** run by a Eurozone finance minister answering solely to a Eurozone committee of the European Parliament? Probably too ambitious, would use up a lot of political capital to establish that.

**Completing banking and capital markets union?** Yes, but positive effect may be limited.

# German consensus machine: the Bundesrat (upper house)

CDU/CSU, SPD and Greens have de facto veto in Bundesrat



- The Bundesrat needs to approve most major laws that affect spending and taxes and major European commitments as well as immigration policies
- If there is no consensus within a federal state's government, the state abstains from the vote – which counts as a „no“
- The CDU/CSU, SPD and Greens are each represented in ten state governments
- Either of these three parties could veto any law in the Bundesrat. That often forces a consensus.

# Disclaimer

This document has been prepared by Berenberg or one of its affiliates (collectively "Berenberg"). This document does not claim completeness regarding all the information on the stocks, stock markets or developments referred to in it.

On no account should the document be regarded as a substitute for the recipient procuring information for himself/herself or exercising his/her own judgements.

The document has been produced for information purposes for institutional clients or market professionals.

Private customers into whose possession this document comes should discuss possible investment decisions with their customer service officer, as differing views and opinions may exist with regard to the stocks referred to in this document.

This document is not a solicitation or an offer to buy or sell the mentioned stock.

The document may include certain descriptions, statements, estimates and conclusions underlining potential market and company developments. These reflect assumptions which may turn out to be incorrect. Berenberg and/or its employees accept no liability whatsoever for any direct or consequential loss or damages of any kind arising out of the use of this document or any part of its content.

Berenberg may act as market-maker or underwrite issues for any securities mentioned in this document, derivatives thereon or related financial products or perform or seek to perform capital market or underwriting services.

Berenberg reserves all the rights in this document. No part of the document or its content may be rewritten, copied, photocopied or duplicated in any form by any means or redistributed without Berenberg's prior written consent.

## Remarks regarding foreign investors

The preparation of this document is subject to regulation by German law. The distribution of this document in other jurisdictions may be restricted by law, and persons into whose possession this document comes should inform themselves about, and observe, any such restrictions.

## United Kingdom

This document is meant exclusively for institutional investors and market professionals but not for private customers. It is not for distribution to or the use of private investors or private customers.

## United States of America

This document has been prepared exclusively by Berenberg. Although Berenberg Capital Markets LLC, an affiliate of Berenberg and registered US broker-dealer, distributes this document to certain customers, Berenberg Capital Markets LLC does not provide input into its contents, nor does this document constitute research of Berenberg Capital Markets LLC. In addition, this document is meant exclusively for institutional investors and market professionals, but not for private customers. It is not for distribution to or the use of private investors or private customers.

This document is classified as objective for the purposes of FINRA rules. Please contact Berenberg Capital Markets LLC (+1 617.292.8200), if you require additional information.