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iAGS

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GIVE RECOVERY A CHANCE

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The positions expressed in this report are those of iAGS

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The ongoing recovery of the EA economy is too slow to achieve a prompt return to full employment. Despite apparent improvement in the labour market, the crisis is still developing under the covers, with the risk of leaving long-lasting "scars", or a "scarification" of the social fabric in the EA. Moreover, the EA is lagging behind other developed economies and regardless of a relatively better performance in terms of public debt and current account, the current low rate of private investment is preparing a future of reduced potential growth and damaged competitiveness. So far, the Juncker Plan has not achieved the promised boost to investment. The internal rebalancing of the EA may fuel deflationary pressure if it is not dealt with through faster wage growth in surplus countries. Failure to use fiscal space where it is available will continue to weigh down on internal demand. Monetary policy may not succeed in the future in avoiding a sharp appreciation of the Euro against our trade partners' currencies. Such an appreciation of the real effective exchange rate of the Euro would lock the EA in a prolonged period of stagnation and low inflation, if not deflation.

A window of opportunity has been opened by monetary policy since 2012. Active demand management aimed at reducing the EA current account combined with internal rebalancing of the EA is needed to avoid a worrying "new normal". Financial fragmentation has to be limited and compensated by a reduction of sovereign spreads inside the euro area. Active policies against growing inequalities should complement this approach. Public investment and the use of all policy levers to foster a transition toward a zero carbon economy are ways to stimulate demand and respect the golden rules of public finance stability.

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<div align="right">

(…)
"C'mon
Ev'rybody's talking about Ministers
Sinisters, Banisters and canisters
Bishops and Fishops and Rabbis and Pop eyes
And bye bye, bye byes
All we are saying is give peace a chance."
(…)
"Give peace a Chance" 1969, John Lennon

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It looks like the EMU is on the way to recovery. However, the Great Recession is not over and a strong and steady recovery is essential to limit and repair the damages that a prolonged period of unemployment has produced. The moment is also critical to avoid the persistence of low inflation or deflation, also known as secular stagnation. Even with a clearing of the labour market, such a trap would entail sustained downward pressure on wages, part-time jobs especially for households' secondary source of income (often women), underuse of qualification and skills, low wages and a growing number of discouraged job seekers and working poor. It would mimic full employment through a low rate of unemployment, but it would be a social disaster. It is imperative to avoid that prospect.

The word recovery is misleading. It mostly means the end of acute recession but does not guarantee that the euro area economy, and hence the world economy, are back to "normal". The increase of EA current account surplus and falling expectations of inflation in the US or the EA (see figure 5. below) shows that a persistent liquidity trap is still likely. Monetary policies in developed countries can end up in a currency war and contribute to a global stagnation. More positive signs should not be taken as proof of an exit from the 2008 crisis, and, once again, Mario Draghi's warning that monetary policy alone is not enough should be considered with utmost attention. As we have argued in the 2015 iAGS, fiscal discipline in the EA is without any doubt a necessary condition for an expansive monetary policy and a rebuild of confidence. But failing to stimulate demand will come at a high cost. There are plenty of opportunities in the transition to the zero carbon economy to provide a stimulus. This can be done while achieving public finance stability by applying a golden rule where new debt is matched by the creation of physical assets with positive (social) value. Current tools, such as the Juncker Plan, are not sufficient to decisively engage in such a transition and to avoid the possibility of stagnation. As we proposed in chapter 4 of 2015 iAGS, privatizing the social returns of the transition to a zero carbon economy with a carbon price is part of the solution, but requires compensation for (temporary) losers.

A too-slow recovery

The current recovery reflects a process of closing output gaps and increasing investment from very low historical levels. As we have analysed at length in previous iAGS reports, the diminution of recessive forces explains a large part of the return to growth. Table 2 summarizes the combined effect of the sovereign debt crisis, massive fiscal consolidation and some selected external factors on growth for the EA. In 2015, and probably in the coming years, expansive monetary policy, depreciation of the effective exchange rate of the Euro, and a pause in fiscal consolidation will contribute strongly to the recovery. Favourable and probably temporary factors like the fall in oil prices strengthen the recovery but the recent slowdown in emerging economies, which is partly correlated to the evolution of raw materials prices, raises some concerns. Financial events and their associated wealth effects, along with the postponing of already delayed investment projects could also put these positive prospects at risk – not to mention geopolitical tensions, which may reallocate investment projects.

Table 1. Summary of iAGS 2016 forecasts

	GDP growth in volume (%/y)			2015 revision	2016 revision
	2015	2016	2017	(difference from March 2015 forecast)	(difference from March 2015 forecast)
DEU	1.8	2.0	1.8	+0.4	-0.3
FRA	1.1	1.8	2.0	0.0	+0.1
ITA	0.8	1.6	1.2	+0.3	+0.9
ESP	3.2	3.4	3.0	+1.1	+1.1
NLD	2.0	1.7	1.8	+0.6	-0.2
BEL	1.3	1.5	1.4	+0.1	+0.1
FIN	0.3	1.0	1.5	-1.0	-0.2
AUT	0.8	1.4	1.7	-0.5	-0.2
PRT	1.6	1.8	1.8	+0.2	-0.2
GRC	0.1	-0.1	1.8	-1.8	-2.0
IRL	6.4	3.7	3.6	3.6	+1.1
EA	**1.6**	**2.0**	**1.9**	+0.3	+0.4
GBR	2.5	2.0	1.8	+0.4	+0.2
SWE	2.7	2.9	2.7		
DNK	1.8	2.0	2.0		
EU-15	1.7	2.0	1.9		
13 new MS	**2.8**	**3.2**	**3.2**		
EU-28	**1.8**	**2.1**	**2.0**	+0.3	+0.4

Sources: IMF; OECD; national accounts; iAGS 2016 calculations and forecasts, november 2015.

We forecast an annual growth rate for the euro area of 1.6% year on year (yoy) in 2015, 2.0% yoy in 2016 and 1.9% yoy in 2017 (table 1). That is a confirmation of the positive signs observed in 2014 and implies that the decrease in

unemployment would continue. Some countries are near full employment (Germany), while Spain experiences a rapid decrease in unemployment (2 points/ y) albeit from a very high level (23% in 2015). The unemployment rate in France and Italy stabilizes and then decreases slowly.
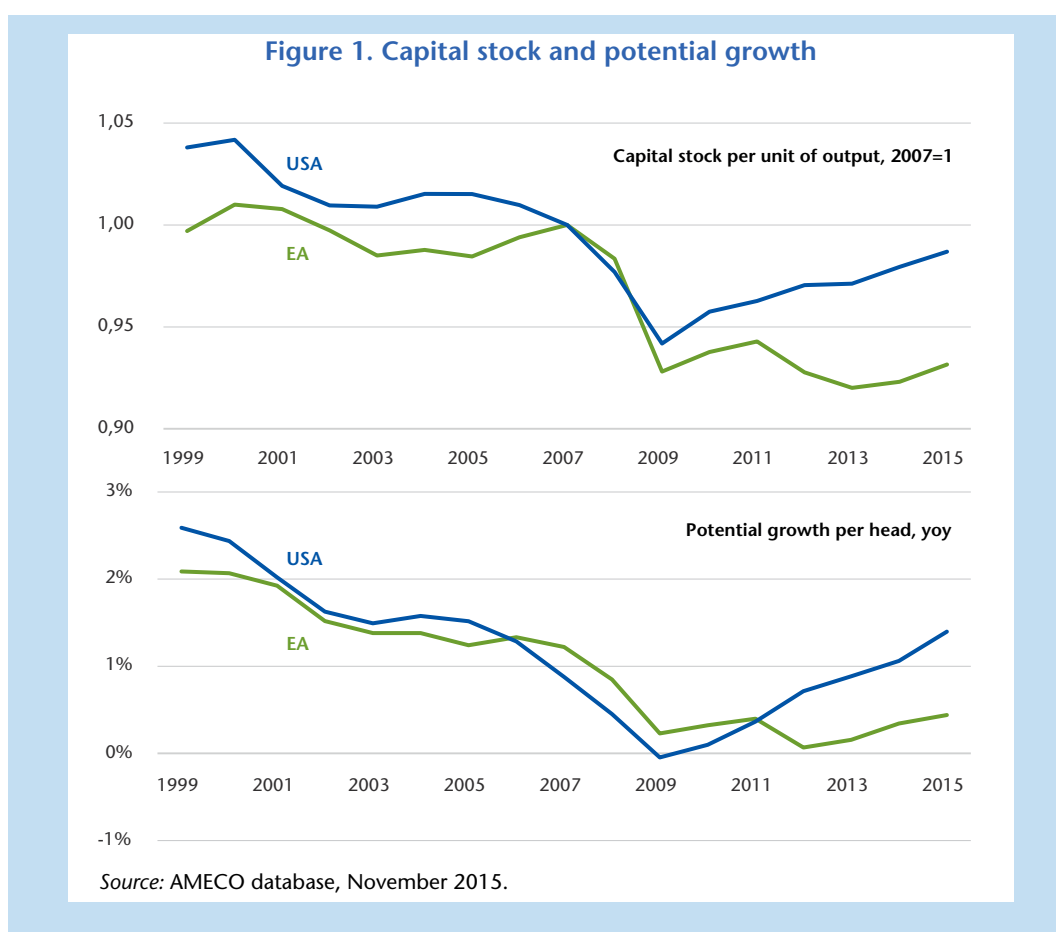
Table 2. Breakdown of short term forecast

	2010	2011	2012	2013	2014	2015	2016	2017
GDP	2.0	1.7	-0.8	-0.2	0.9	1.6	2.0	1.9
effect of … on GDP								
Oil price deviation from 100$/b	0.0	-0.3	-0.2	0.0	0.1	0.5	0.3	0.2
Price competitiveness	0.3	0.4	0.5	0.1	-0.2	0.3	0.4	0.2
Financial conditions	0.0	-0.1	-0.9	-0.3	0.0	0.1	0.0	-0.2
Fiscal policy	-0.2	-1.3	-2.4	-1.3	-0.6	-0.2	-0.2	-0.3
2014 Emerging countries slowdown	0.0	0.0	0.0	0.0	-0.2	-0.4	-0.2	-0.2
Carry on (quarterly profile)	0.1	0.4	-0.2	-0.4	-0.3	-0.5	-0.3	0.3
Other					-0.1	0.0	0.1	0.0
Sum of above effects	0.2	-1.0	-3.1	-1.8	-1.1	-0.1	0.1	0.0
Growth in the absence of effects	2.1	3.2	2.8	2.1	1.6	1.7	1.9	1.9
Potential growth	0.9	0.9	0.8	0.8	0.9	0.9	0.9	1.1
Output gap	-2.0	-0.8	-2.0	-2.9	-2.9	-2.2	-1.1	-0.3

Sources: iAGS 2016 calculations and forecasts, november 2015.

Nevertheless, the recovery remains worryingly weak. The speed at which unemployment has been reducing is far too low. At the current pace of reduction, the 2007 pre-crisis rate of unemployment would not be reached again before 2022. Compared to the US or UK recovery or even to the 2011 phase of growth, output gaps are closing at a slow pace. Moreover, the closing gaps are hiding an untold fact. The measured gap is between actual output and potential output. Potential output is a non-observable concept, built upon estimates (see box 1). Recent evaluation of potential output for EA (by ECFIN or OECD) have been revised downward, meaning that the closing of the gaps is being done from the bottom (increase in actual output) and from the top (decrease in potential output). This is not the case for the US, or at least not to the same extent. Revising downward potential output is a way to acknowledge the long term impact of the financial crisis. Historical analyses from the IMF have shown that usually a financial crisis reduces potential and trend growth in the aftermath of the crisis. However, this analysis is not able to provide a quantified link between a sound measure of the intensity of a financial crisis and its impact on growth. So it may justify a reduction in prospects for potential growth without asserting it quantitatively.

Box 1. Production function method and potential output

The production function method, as defined by the European Commission in the economic paper #535, November 2014, uses information about production factors to estimate potential output. This method relies on information about factor usage, namely unemployment rate or unemployment gap and capacity utilization rates. However, an assumption is made about the stock of capital, supposed to be a good measure of the factor availability and to be at its equilibrium level. This assumption carries 2 errors which, in most situations, cancel each other out. On the one side, as capital stock is based on past investment through the inventory calculation, it is inert and not very sensitive to a slump in investment, when this slump is not too prolonged (as compared to the depreciation rate). Considering capital stock as close to optimal level is thus mainly considering that the optimal level of capital stock has not changed over the recent past. When a recession occurs, this assumption leads to a backward looking measurement of potential growth. The second error is that the measurement of capital is wrong in recession. The capital stock estimate is built using a constant physical depreciation rate and accumulating investment. In a severe recession, however, it is likely that depreciation is not simply physical but is also grounded by economic consideration. Moreover, when overinvestment precedes the recession, it is also likely that some of the capital stock will turn out to be unsuited to future needs as stated by relative prices. Hence, some of the capital stock is going to be unprofitable and will be depreciated for that reason and because of physical wear. As a consequence, in a recession, the inventory method of estimation of the capital stock will overestimate the capital stock. Considering the capital stock as optimal and overestimating it usually yields a conservative and inert estimation of potential output. This implies that the potential rate of growth is not influenced by the outcome of the recession as long as it is a mild one. In a severe and prolonged recession, after a few years, lower levels of investment will reduce productive capital stock estimates and will push forward the conclusion that the loss in capital stock is indicating a harsher reduction in potential output. Fiscal rules, relying on potential output estimates, will close the game by imposing a reduction of demand as an adjustment to a lower prospect for future output. The Figure 1 illustrates that phenomenon, by displaying output per unit of productive capital and potential growth for the euro area and US economies, according to ECFIN evaluation (AMECO database, November 2015).

Figure 1. Capital stock and potential growth

Capital stock per unit of output, 2007=1

USA

EA

Potential growth per head, yoy

USA

EA

Source: AMECO database, November 2015.

However, the main reason for the difference in revisions between US and EA prospects for potential growth is the consequence of lower productive investment during the crisis in the euro area than in the US, due to the sovereign debt crisis in the EA. Following the production function method, potential output is estimated based on an evaluation of the stock of productive capital. A smaller investment rate leads to reduced capital accumulation and hence to a lower estimate of potential output. In the future, a rebound in investment will reconstitute capital stock and one can expect potential output to be revised upward. But, by considering that potential output is lower, current fiscal rules force adjustment of public spending accordingly, fueling a procyclical fiscal policy in the short span of a few years, adding a medium term bias to the existing short term one.

As a complement to poor medium-run prospects for growth, we argue in chapter 2 of the 2016 iAGS that a process of "scarification" of the labour market is under way. The slow reduction in unemployment is going on, indeed. But long term underemployment (as well as very long term unemployment) is increasing. Labour market halo (people willing to work but not actively searching and thus not counted as unemployed in the ILO sense) and labour underutilization (people working part time and willing to work more) are increasing in the EA (Figure 2). Overall, labour underutilization (summing up halo and underemployment) is increasing despite what looks like an improvement of the labour market. This process suggests that dual labour markets have developed, where the frontier

between inside and outside is not the existence of a work contract but rather qualification or age, and that they are growing apart everywhere in the EA. It also implies that the gender gap, especially in the dimension of involuntary part time work, is also increasing. The slow drift of unemployment, on the ILO definition, into a fuzzier phenomenon means also that it is less visible and less reachable by public policies.

Figure 2. Unemployment, underemployment and halo in the EA
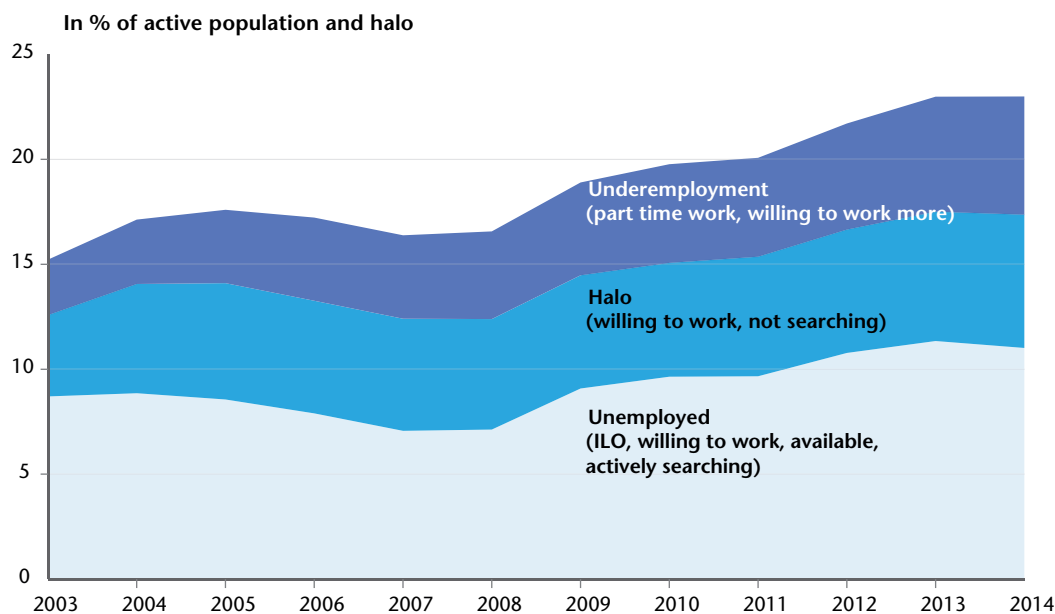
Source: LFS, Eurostat, 2016 iAGS calculations.

The result is more Europeans suffering from severe material deprivation. In the countries that experience the biggest increases in severe material deprivation, the rate among children tends to be even higher, indicating that they are hit harder than any other age groups. One out of 6 children growing up with a single parent in the Eurozone lives in a household with severe material deprivation. The share of single parents experiencing severe material deprivation is twice as large as in households with dependent children in general. Lack of opportunities during childhood is likely to have long-term consequences for the individuals concerned as well as for society as a whole.

Euro area is lagging behind

The 2008 crisis originated in the melt down of the financial and banking system in the US, following the subprime crisis. The close interconnection of banks and financial institutions between developed countries made the financial shock a common one. But the euro area experienced a second dip in 2011 due to the sovereign debt crisis. The possibility of a default of some states in the euro area, facing potential shutdown of their access to financial markets without alternative financing through their central bank and limited capital flow, led, in crisis countries, to a combined increase of sovereign and private sector interest rates

due to bank exposure and financial fragmentation of the euro area, and a strong fiscal consolidation in response to pressures on public debt financing. As previously analysed in the 2013 iAGS and following reports, fiscal multipliers were high in crisis countries as a consequence of high unemployment, banks being under stress and carrying damaged balance sheets and fears of deflation (threatening to hit the zero lower bound or ZLB). Fiscal consolidation in times of high fiscal multipliers is self-defeating and contributed to the euro area crisis. The sovereign debt crisis was (temporarily) solved with the stepping in of the European Central Bank (ECB), first in 2012 (the famous "whatever it takes") and in early 2015 with quantitative easing.

Comparing ero area aggregate indicators to those of the United States or United kingdom helps to measure how costly the sovereign debt crisis was (Figure 3). GDP per head is still below its 2007 level whereas the US economy has undergone a significant recovery. This is even more striking given that the initial impact of the crisis was roughly equivalent in 2008-2009 and that, starting in late 2009, the first phase of recovery was as quick for the EA as it has been for the US

Figure 3. EA vs USA vs UK (GBR)
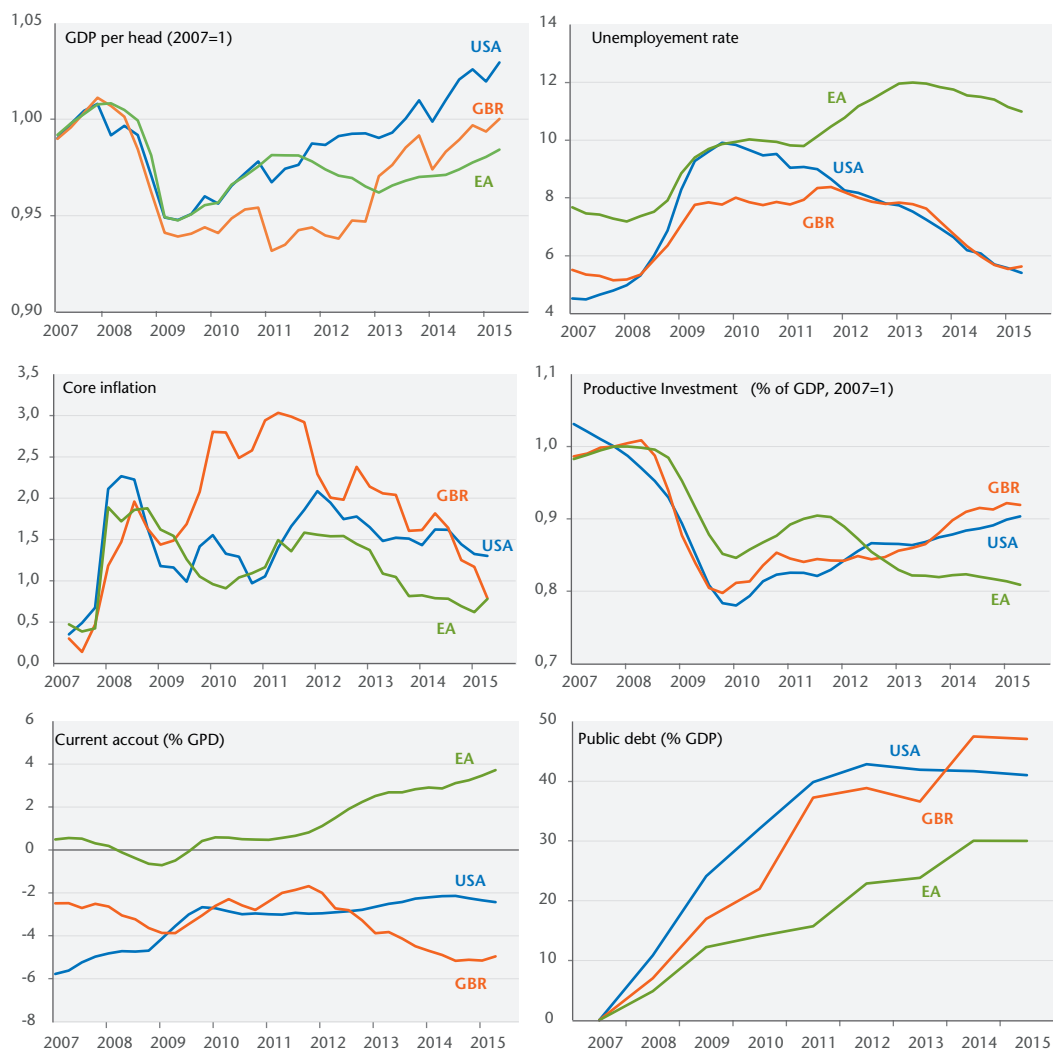
Note: 6 graphs that show that the euro area has performed worse than US or UK, except for current account and public debt.
Source: OECD eo98 (national accounts), iAGS 2016 calculations.

economy. It is often argued that without structural reforms, growth cannot be experienced in most EA countries. This short episode of recovery is a clear refutation of that hypothesis. More important than GDP per head, unemployment has risen in two steps and has reached a high level. Since 2014, unemployment has started to decrease, but at a slow pace. As will be detailed later on, enduring a high level of unemployment, even a decreasing one, has certain consequences.

First, it puts downward pressure on wages and price level, fuelling a "lowflation" and risking deflation. This is displayed on the core inflation graph, where the EA clearly underperforms the US economy. Second, because unemployment insurance schemes in the euro area are limited in time, unemployment is slowly transforming into other forms of labour slack. Even more worrying, productive investment is now well under the level of 2007 while It has sharply bounced back in the US and UK. Less accumulation of productive capital will diminish the potential for future jobs and output and could damage the competitivenessof the EA. This is the core of the medium term procyclicality of the potential production estimate that, combined with current fiscal rules, will lead to a long lasting fiscal consolidation.

The current account and public debt graphs display more positive information, at least compared to the USA or UK. The public debt increase has been significantly lower in the euro area than in the USA or UK. Current account and public debt performance both convey the information that the euro area has been saving more than the USA or the UK over the crisis. This is a perfect illustration of Keynes' paradox of thrift, where excess savings in a period of duress extends the crisis.

Looking forward: debt dynamic and internal rebalancing of the euro area

After a huge effort toward consolidation which cost the euro area a double dip, there is now a pause in the contractionary fiscal policy. As shown on Figure 4 aggregate public debt in the euro area is stabilized and will decrease in the following years under the hypotheses that present structural public deficits remain unchanged, sovereign interest rates normalize, inflation expectations remain anchored to the ECB target, financial fragmentation has no impact on private sector financing and potential growth in the medium term is as forecast by the 2015 ageing report central scenario (Table 3). The results of such simulations are sensitive to a large number of hypotheses as we have argued in previous reports and as is documented in chapter 3 of the 2016 iAGS. Numbers should be considered with care, but they indicate trends and allow for "what if" scenarios. Under those assumptions, EA aggregate public debt would decrease to 65% GDP in 2035 but country specific evolutions are diverse. Some countries (Germany, Ireland, Portugal[1]) are overshooting the 60% ratio, suggesting that they have some fiscal space, whereas others (France, Italy, Spain, Belgium) do need further

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1.   Portugal has currently a positive structural surplus for public finances. That comes from a huge fiscal consolidation and a largely negative gap. The ability of Portugal to overshoot the debt to ratio threshold depends on whether there is no reverse in fiscal policy (fiscal policy acceptance) and that Portugal is able to recover from the current recession (output gap will close in the near future). Failing to meet one or two of these conditions would prevent Portugal to reach 60% GDP debt to GDP ratio.

fiscal consolidation to bring their debt to GDP ratio back to 60%. One might question the necessity to reduce debt back to 60% and, given that the no bail out rule prevails, accept different ratios of debt to GDP as long as debt is stabilized. This question is quite important as aiming for a 60% ratio of public debt will come at a cost in terms of output, unemployment and welfare. The impact of a higher but stable public debt to GDP ratio is unclear and bringing it down uniformly is justified only if one wants to protect from future crises and unwanted increases in public debt.

As pointed to by the Macroeconomic Imbalances Procedure (MIP), the current competitiveness situation is unbalanced. Only pre-crisis external deficit countries have achieved adjustment, while external surplus countries have even increased their current account surpluses. To restore internal balance, nominal adjustment in surplus countries has to be a priority for economic policy in the EA. Significant fiscal stimulus or wage increases would help delivering the necessary additional import demand to reduce those imbalances and would create additional demand with positive spillover effects on growth and employment for deficit countries.

Table 3. Projection of public debt

	Public debt (%GDP)		Structural balance (%GDP)		GDP growth rate (% yoy)		Inflation rate (% yoy)	
	2020	2035	2020	2035	2016-20	2021-35	2016-20	2021-35
DEU	57	24	0.8	1.4	1.3	1.0	1.8	2.0
FRA	95	97	-2.7	-3.6	1.9	1.4	1.2	2.0
ITA	123	80	0.3	1.1	1.2	0.2	0.7	2.0
ESP	96	89	-2.3	-2.7	2.3	1.4	1.1	2.0
NLD	67	62	-1.4	-1.9	1.7	1.3	1.2	2.0
BEL	102	87	-2.0	-2.1	1.8	1.5	0.9	2.0
PRT	110	49	0.9	2.5	1.9	1.0	0.9	2.0
IRL	76	21	0.9	2.6	2.6	1.8	1.8	2.1
FIN	65	74	-2.4	-3.3	2.1	1.6	1.3	2.0
AUT	83	69	-1.3	-1.5	1.6	1.4	1.2	2.0
EA	87	65	-0.8	-0.8	1.7	1.1	1.3	2.0

Source: AMECO (nov. 2015) for historical data. iAGS model simulation, forecasts and hypothesis, November 2015. Structural deficits in 2020 can be different from 2015 data because of change in potential growth endogeneous to the model and variation in sovereign rates.

However, if the painful and counter-productive process of one-sided adjustment of Germany (implicitly acting as the reference country) continues, a large adjustment is still needed (see Table 4). In order to realize this kind of adjustment, we suppose that wage moderation is going to occur during the next 20 years. For instance, France would need a 1%/y (21% over 20y) wage moderation relative to Germany. Inflation in France would be lower by 1% which would thus entail a stricter fiscal stance in order to correct for negative impacts of inflation on debt dynamic (as the nominal sovereign interest rates depend on EA inflation, nominal

sovereign rate minus nominal growth would be higher in France than in the reference scenario). If all EA countries engage in wage moderation according to the last column of table 4, then relative inflation will be lower in those countries. That adjustment is possible with Germany keeping its rate of inflation as close as possible to 2% (asymmetric adjustment) or by accepting higher inflation in Germany, through wage policies for instance (symmetric adjustment). Tighter fiscal stance due to lower inflation in adjusting countries has an impact on all countries, as displayed in Table 5, due to spillovers from trade integration, inflation and competitiveness and fiscal rules.

Table 4. Nominal adjustment for value added prices (relative to Germany)

	2008	2009	2010	2011	2012	2013	2014
DEU	0	0	0	0	0	0	0
FRA	-21	-18	-18	-21	-22	-17	-21
ITA	-35	-29	-40	-38	-22	-13	-10
ESP	-63	-40	-37	-35	-25	-16	-20
NLD	-5	6	6	4	5	7	1
BEL	-40	-36	-17	-37	-27	-25	-27
PRT	-116	-106	-90	-56	-37	-18	-24
IRL	-31	-34	-29	-31	-33	-22	-16
FIN	5	-1	-8	-34	-37	-33	-28
AUT	18	15	12	1	3	6	1

Note: Germany is taken as a reference in order to compare adjustment through time. It does not presume the way the relative internal adjustment must be made.
Source: 2016 iAGS calculations, historical data from AMECO november 2015.

Table 5. Loss/gain of relative nominal adjustment on EA countries

	Using fiscal space in all countries		Not using fiscal space in all countries	
	No Euro appreciation	Euro appreciation	No Euro appreciation	Euro appreciation
DEU	0.1	0.0	0.0	-0.2
FRA	-0.3	-0.4	-1.0	-1.2
ITA	0.1	-0.3	-0.1	-0.8
ESP	-0.1	-0.1	-0.1	-0.1
NLD	0.1	0.1	0.2	0.1
BEL	-0.1	0.0	0.1	0.3
PRT	-0.1	0.0	-0.1	0.0
IRL	0.0	0.0	0.0	-0.1
GRC	0.0	0.0	0.5	0.4
FIN	-0.3	-0.2	0.0	0.1
AUT	0.2	0.2	0.3	0.2
EA	0.0	-0.1	-0.2	-0.4

Note: The Impact is defined as the average loss of output, or equivalently of the increase in unemployment, over the period 2016-2035, each year.
Source: iAGS calculations, historical data from AMECO November 2015. Euro appreciation in scenario without using fiscal space is higher (25% REER) than in scenario using fiscal space (10% REER) because of a lower EA current account in that scenario. See chapter 3 of 2016 iAGS for discussion.

Financial fragmentation, as developed in chapter 3 of the 2016 iAGS adds to the risks of deflation. Because of the linking of private sector rates to sovereign rates inside each country, the increase of real sovereign rates is matched by an increase of real private sector rates.

Box 2. Aggregate fiscal stance

Using the aggregate fiscal stance as a tool to conduct macroeconomic policy is appealing. A common currency implies many externalities between countries which justifies caring about aggregate variables. The first (and the most commented) externality is through trade, increasing when integration of economies is higher. Public debt is another one, as countries contribute to the global market equilibrium, determining jointly the aggregate supply of public debt, which results in the equilibrium sovereign rate in the euro area. The current account is another one, as we argue, especially when the zone is near or in a global liquidity trap. Using aggregate fiscal stance as a target for the EA and then breaking down a compatible fiscal stance for each country would be a progress for policymaking in the European semester.

We propose here two ways to calculate the aggregate fiscal stance. The first one is a weighted sum of the variation of structural balance. These figures assess to a certain extent the evolution of deficits in the long run, once the cyclical effects are purged. This figure depends crucially on the way structural deficits are calculated and hence on the assumptions about the potential output used in this calculation. Even under common budgetary assumptions, the evolution of structural balance can evolve in very different ways (see lines 2 and 3 of the table below). As we have argued (Box 1), it is better to use a medium term potential instead of a shorter term potential. Current calculations by ECFIN seem to use a short term potential and we propose a somewhat different view in the following table.

Table 6. Aggregate fiscal stance

	2014	2015	2016	2017
iAGS	0.1	-0.1	-0.1	0.2
ECFIN, Autumn Forecast	0.3	-0.1	-0.1	-0.1
ECFIN, based on OECD's output gap	0.4	0.0	-0.1	-0.1

Note: The 2017 change of structural balance is computed on a no-policy change scenario by ECFIN, and the iAGS scenario takes into account commitments of Member States in their last Stability Programmes.
Source: Ameco, OECD, Draft Budgetary Plans and Stability Programmes.

On the basis of this indicator, the aggregate fiscal stance in the euro area is neutral or slightly expansionary in 2015 and 2016. However, if the Member States implement the fiscal policy announced in their Stability Programme, fiscal consolidation will start again in 2017.

If the change of the structural balance shows that the fiscal policy is neutral in the whole euro area, the assessment of its economic impact needs to be completed. According to several authors the multipliers of public expenses – which are decreasing in most of the bigger euro area economies– are higher

than those associated with tax changes –which are decreasing and should have an expansionary impact. This is particularly true when output gaps are negative. When the composition and the localisation of the fiscal impulses are taken into account, the assessment of the aggregate fiscal stance needs to be modified for 2015 and 2016.

Hence, the second indicator of the aggregate fiscal stance proposed is based on a weight that takes into account the macroeconomic impact of fiscal policy. As widely discussed, the effects of fiscal multipliers vary over the cycle and according to the composition of the fiscal policy. Time profile of impacts may also produce "apparent" fiscal multipliers far different from commonly used values for fiscal multipliers. The following table provides estimates of aggregate fiscal stance based on impact.

Table 7. Impact of fiscal policy on EA GDP

In points GDP

	2014	2015	2016	2017
iAGS	0.0	0.1	-0.1	-0.2
ECFIN, Autumn Forecast	-0.1	0.2	0.0	0.1
ECFIN, based on OECD's output gap	-0.3	0.0	-0.1	0.1

Source: Ameco (Autumn Forecast 2015) and OECD (eo97).

When the composition and the localisation of the fiscal impulses are taken into account, the assessment of the aggregate fiscal stance is radically modified. Fiscal policy will be slightly contractionary in 2016 (-0.1 point of GDP) in spite of the decrease in the aggregate structural balance. This paradox can be explained by the localisation of the impulsion, which has low impact in Germany (increase of 0.1 point of the German GDP associated with a fiscal impulsion of 0.4 point) and the composition of the expansion in Italy (tax cuts for 0.7 point of GDP with a multiplier of 0.6 and an effort in expenses of 0.2 points of GDP with a multiplier of 1.5) and in Spain (effort in expenses of 0.2 point of GDP and tax cuts for 0.2 point of GDP: while the fiscal stance looks neutral, the impact on GDP is negative).

The apparent paradox of a fiscal loosening with recessionary effects raises the matter of the fiscal space –expansionary policies should be larger in unconstrained countries– and the flexibilities in the application of SGP –expansion should be done in countries with high multipliers. Analysing the situation of each Member State vis-à-vis the SGP, it appears that very few countries have fiscal space with respect to the rules of European budgetary governance. Only Germany would have some fiscal space but the efficiency of a German based stimulus would be limited, at least from a GDP point of view. This raises the question of the creation of a common fiscal capacity that would enable implementation of a counter-cyclical budgetary policy, especially when there is no scope for monetary policy like a situation of liquidity trap and deflation.

Taking into account the very high levels of unemployment and underemployment in figure 2, even the highest value of the fiscal impulse (+0.1% GDP) is far too low to deliver significant fiscal stimulus. A coordinated increase of public investment with a focus on the Europe 2020 targets would be a proper policy change for a more balanced economic policy. With the implementation of the golden rule of public investment, such a stimulus could be achieved in line with the European fiscal rules. A. Truger (2015) made a concrete proposal on how to design and implement the golden rule for public investment in Europe.

Box 3. Economic implications of the refugees surge

In the summer of 2015 Europe was suddenly and unexpectedly confronted with a dramatic increase in the number of refugees seeking sanctuary and asylum. The "refugees crisis", as it is often portrayed, raises primarily humanitarian, political and ethical issues, both for individual Member States and for the European Union as a whole. Against this background, the sharp rise in refugee inflows also raises questions about the likely economic, fiscal and labour market effects. There is still uncertainty about the size of current inflows or their likely distribution across Member States.

Most refugees arrived *via* the Mediterranean/Aegean Sea in Greece and Italy, many subsequently heading for core EU countries overland via Hungary or countries of the former Yugoslavia. The inflow rose steadily to over 60,000 by the end of 2014 from 20,000 since 2012. The number of asylum registrations shot up dramatically, reaching over 130,000 in August 2015. Figures for Germany are available until October, with almost 55,000 registrations in that country alone. Hungary, Sweden and Austria, in view of their smaller size, have also been disproportionately affected. These figures substantially understate the true extent of the refugee inflow due to delays in registering the asylum seekers. Of the asylum seekers registered in 2015 more than 70% were male and under 30% female and they are younger than average EU population. At just under 19% the share of the EU population under 18 is considerably lower than among refugees (27%). Moreover, the average age within the working-age population is substantially higher among EU-residents: The asylum-seeker data indicates that more than half of the total intake (55%) are aged between 18 and 34, while a further 18% are aged between 35 and 64. For the EU population the proportions are more or less reversed: just 21% of the overall population consists of (potential) workers in the younger age category, while 41% are in the 35-64 age brackets. To put it another way, an intake of 1.25 million refugees adds just under a quarter of one percent to the EU overall population, but 0.64% to the younger working-age cohorts and just 0.1% to the 35-64-year age bracket. Moreover, it seems likely that – even if a more effective redistribution and relocation system is established in time – a substantial proportion of the incoming refugees will settle in Germany.

The realisation of positive economic effects of this demographic flow depends on the successful labour market integration of incoming refugees. Combining the large share of younger refugees with uncertainty about their qualifications and known language barriers clearly suggests a need for a substantial investment in providing early and comprehensive language tuition for all refugees, followed by swift integration in school, tertiary education and vocational training programmes and paid employment. Member State policies regarding the asylum process itself will also be decisive for the speed with which refugees enter the domestic labour market. Normally, until refugee status has been formally granted, asylum-seekers are not permitted to take up formal paid employment. This suggests that reducing application processing times is an important way of reducing the time during which refugees are dependent on welfare benefits. In any case educational and other integration procedures should be available as early as feasible, where possible before formal recognition, to promote social and also economic integration.

Heightened competition on the labour market from refugees almost certainly implies a potential for income redistribution among the native population from the bottom up. Given that this pressure comes on top of existing trends towards greater social inequality (see Chapter 2 of the 2016 iAGS), policy-makers should be conscious of and take appropriate steps to mitigate such effects. Financing educational and language-proficiency programmes (which will intensify competition in the middle and the top, rather than at the bottom of the distribution) out of progressive income taxation would seem appropriate in this context, for instance. A number of commentators have called for the abolition of minimum wages and other labour market liberalisation measures in order to ease the integration of refugees and migrants into the labour market. This will lead to resentment amongst native workers, stoke social tensions, and be grist to the mill of the xenophobes. The right approach to maintaining and expanding employment opportunities is to institute active educational and labour market policies as indicated above and to address the real causes of high unemployment in EU countries.

Arrival and transit countries must shoulder the fiscal costs of ensuring the safe arrival, registration and recognition, initial accommodation, food and health-care, and onward passage of refugees, while maintaining security. For some of this expenditure compensation is available from EU funds. Estimations of the size of this additional fiscal spending generally point to modest effects. The European Commission in its Autumn Forecast foresees additional spending averaging out at 0.2% in the current year, rising slightly in destination countries the following year. Sweden is forecast by the Commission to experience the largest spending boost, of around 0.5% in 2015. To the extent that fiscal targets are maintained, it is implied that additional spending on refugees will need to be offset by cuts in other budget areas. However, in our view, the multiplier on fiscal expenditures on refugees is likely to be substantially in excess of one. Refugees are "credit-constrained households" par excellence, while the import leakage (especially the extra-European leakage) of spending on support services, housing etc. is likely to be extremely limited. And for as long as there is a significant negative output gap, additional induced spending rounds are to be expected from the higher private-sector incomes generated by the additional government purchases. A short-run boost to European GDP of several decimal points of one percent seems plausible on this basis. "Front-line" states, most prominently Greece, but also countries such as Italy and Spain should benefit from transfers by other EU countries. Funding from the EU's Asylum, Migration and Integration Fund or the European structural funds should be expanded. And demands to exclude the additional spending on refugees, which undoubtedly has a European dimension, when evaluating national budget positions should be given a favourable hearing.

War of currencies and secular stagnation

Most EA countries with current account deficits prior to 2007 are now in surplus. Belgium and Slovakia are the last exceptions in 2015. Current account performance is linked to output gaps that are still negative in some euro area countries. Our calculations show however that this effect is fading away (it is true

mainly for Spain, see chapter 3 of the 2016 iAGS) and that current account performance is close to the structural one, given the current effective exchange rate. It could be considered a result of wage deflation.

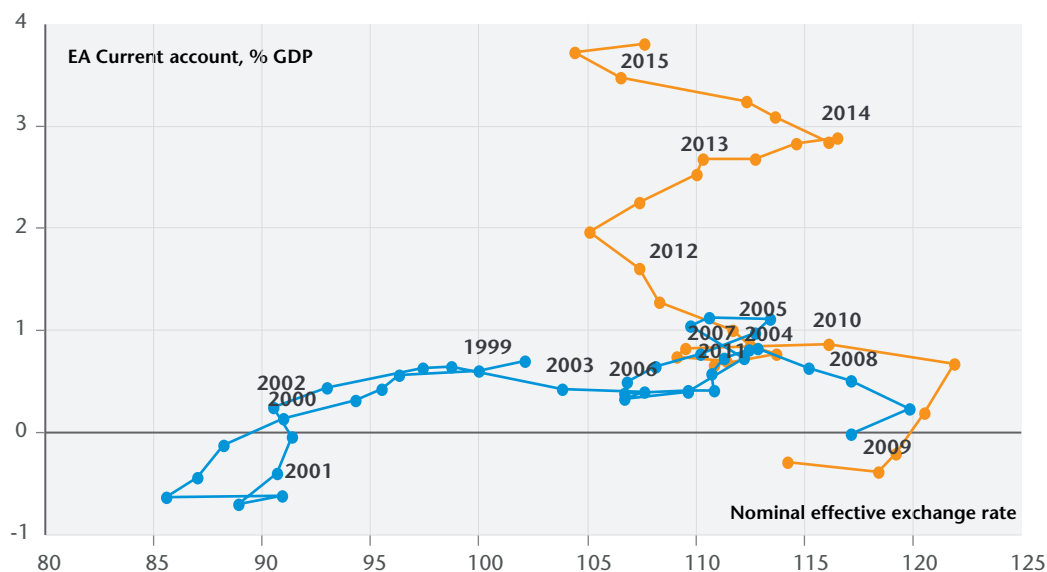**Figure 4. Current account in % of EA GDP**
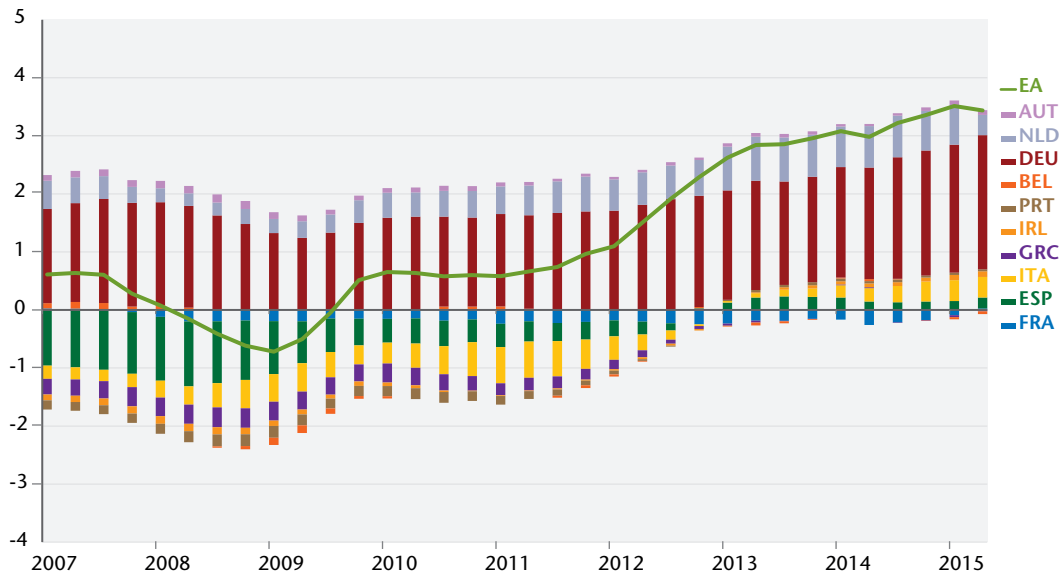
Note: Upward shift of current account is a consequence of lower raw material prices, low internal demand and unconventional monetary policy.
Source: national accounts, ECB, iAGS 2016 calculations. Current account is cumulated over 4 quarters.

The growing surplus of current account for the euro area implies that a strong pressure is building on the appreciation of the Euro against its trading partners' currencies. Since the sovereign debt crisis in 2010 and after 2012 – mostly since 2014 – expansionary and unconventional monetary policies have counterbalanced this effect and have pushed the effective nominal exchange rate downwards (see Figure 5). By postponing appreciation of the effective exchange rate, the increase in the current account (competitiveness effect) has been amplified. Low energy and raw material prices, low demand in the EA, due to both public and private deleveraging, have reduced imports and have also contributed to the increase of the current account of the euro area. This has led to a record high current account surplus for the euro area of 3.8% of GDP (more than 400 bn€ for the sum of the last 4 quarters). In 2014, the current account surplus of the EA exceeded the current account deficit of the US economy and was more than twice the current account surplus of China). To avoid increasing global imbalances, the EA's surplus has to be brought down close to zero by increasing aggregate demand.

Figure 5 suggests a change in regime around 2011, that is to say concomitant with the sovereign debt crisis. In this new regime, record current accounts were made possible without appreciation (nominal or real) of currency and without corrective consequences of appreciation. When euro area monetary policy will cease to be more unconventional than monetary policy from other countries (mainly the USA), chances are high that a strong appreciation of the

Figure 5. EA nominal effective exchange rate versus EA current account

Source: Effective Exchange Rate, broad partners, ECB. EER is 100 in Q1 1999, increase shows appreciation of Euro against trade partners currencies. Current account is for euro area countries, in % of EA GDP, from national accounts (Eurostat). Real exchange rate of euro brings the same pattern.

Euro will occur. Our estimate is that a 25% appreciation of Euro effective exchange rate would reduce the current account surplus. This will reduce the competitiveness of the Euro and drag down export driven demand, weigh down on inflation, and finally depreciate assets held by European countries that are denominated in currencies other than the Euro[2], triggering a negative wealth effect. In other words, unconventional monetary policy is pushing the Euro downwards allowing the EA to increase its current account position and save the extra revenue, building forces that may reduce demand further and lower inflation in the future. As the EA is currently experiencing low inflation and is close to deflation, such a future adverse shock would then precipitate the advent of long lasting stagnation. In that regard, there are similarities between the EA and the Japanese economy in the 1990's. As explained in a recent paper by Caballero, Fhari and Gourinchas[3], one can export a liquidity trap through currency war and it is possible to win some relief. But it is a zero sum game and it is likely that foreign countries will react by also trying to use the depreciation weapon in their

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2.   Because current accounts of most EA countries are now in surplus, it means that large surplus countries are accumulating assets outside the EA, at least on a consolidated basis. There is no accurate way to know the exchange risk borne on those newly accumulated assets, but as the consolidated counterparts are mostly the USA and the UK one can imagine that the exchange risk is on the surplus countries side. That is a neat change from the previous period (2000-2010) when assets accumulated by Eurozone surplus countries were matched by liabilities of deficit countries, and thus, denominated in the same currency, bearing no exchange risk. The risk has proven to be of another nature.

3.   Caballero, R. J., Farhi, E., & Gourinchas, P.-O. (2015). Global Imbalances and Currency Wars at the ZLB. NBER Working Papers, (21670). See also http://www.voxeu.org/article/welcome-zlb-global-economy.

own interest. It could turn into a negative sum game if ongoing depreciations fuel a long lasting stagnation. Figure 6 shows that the fear of low inflation has not disappeared and may be moving, for now, from the euro area to the USA.

Figure 6. Inflation expectations
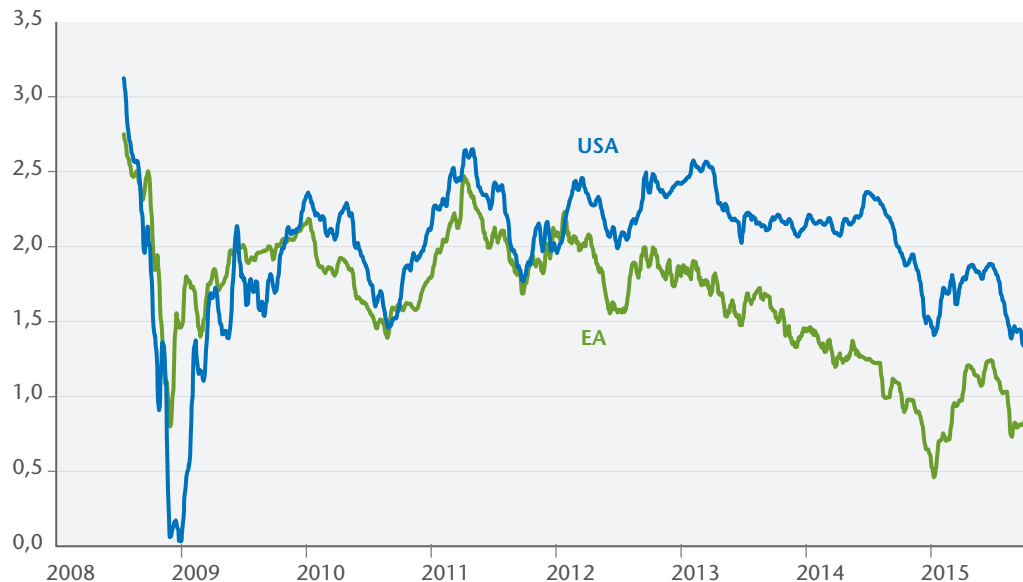
Inflation expectations are measured using 5 Years Forward 5 Years Swap.
Source: Datastream.

Once again the EA is at a crossroad and bears a huge responsibility. As Mario Draghi said in Jackson Hole on August 2014, monetary policy alone cannot lift the EA out of the stagnation trap ahead[4]. External surplus and the induced upward pressure of the effective Euro exchange rate is an additional channel for spillovers among Euro area Member States. The common currency means that EA economies are closely linked through trade. The TSCG adds fiscal rules and thus when facing a common adverse shock in 2011, EA economies engaged altogether in fiscal consolidation, amplifying its impact. Record external surplus will again link EA economies through the consequences of an appreciating Euro. Monetary policy, because of the zero lower bound, will not succeed in stimulating the economy in that situation. For that reason, failing to reduce current account surplus by a strong boost in demand (public or private), will negatively affect all EA countries. For that reason, external surplus is not a matter for a country to decide alone and should, on the contrary, be considered a matter of common interest.

We show in chapter 3 of the 2016 iAGS using simulations from the iAGS model that the current account surplus increases the links between EA economies. It is well known that openness of trade in a fixed currency framework is important (we have used this argument in previous iAGS reports). The scenario of an appreciating Euro due to excessive current account surpluses and normalisation of monetary policy in the EA will depress external demand in all EA countries,

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4. "*it would be helpful for the overall stance of policy if fiscal policy could play a greater role alongside monetary policy*", www.kansascityfed.org/~/media/files/publicat/sympos/2014/2014draghi.pdf?la=en.

regardless of their current account position. Imbalances displaced outside of the euro area would then reappear inside the EA. The magnitude of this channel (according to our simulations) makes the responsibility of EA countries with high surpluses (e.g. Germany) greater than ever. The impact of those spillover effects is illustrated in table 5, where the nominal adjustment impact of average GDP for the next 20 years is augmented by the impact of the Euro appreciation. Not using the fiscal space available to some countries would imply a negative impact of 0.3% of GDP each year from 2016 to 2035 for the EA as a whole. This spillover would be significant for Italy and France (around 1% GDP each year), but would also affect Germany (0.2% GDP).

Box 4. The Juncker Plan and the role of EIB since the crisis

On 26 November 2014, the European Commission announced an initiative to launch a 315 bn€ investment plan in Europe. This so-called "Juncker Plan" aims at increasing investment volumes in the European Union, which were still 370 bn€ below their historical pre-crisis level in 2014. However, the investment package will not result from increased public investments. Rather, it is to be achieved through highly leveraged investments conducted by the European Investment Bank through a new vehicle, the European Fund for Strategic Investments, with a triple focus: infrastructure, innovation and SMEs.

Ultimately the European Union has only mobilized a 16 bn€ guarantee from its budget. Combined with 5 bn€ of EIB's own resources, this provides the EFSI with 21 bn€ in initial funding. The remaining 294 bn€ of the Juncker plan are expected to come from the private sector, through a leverage ratio on EIB's investments greater than 15.

The Juncker plan thus turns out to be yet another round of increase of the EIB capital and leverage, the third one since the 2008 crisis. In 2009, the EIB Board of Governors had approved a 67 bn€ increase in the Bank's subscribed capital[5], followed in 2012 by a decision of the European Council to increase lending activity by 60 billion over the period 2013-2015, with an annual target of 65 to 70 bn€[6]. However, an analysis of EIB's yearly disbursements (Figure 7) reveals that the 2009 spike was short-lived, with annual lending in 2012 falling back to pre-crisis levels, and that both 2013 and 2014 have fallen slightly short of EIB's stated goals.

Through these successive increases in lending activity, the EIB has been recast as the European Union's main tool of contra-cyclical economic intervention. Yet, the breakdown by country of the increase in activity since 2009 shows it has not necessarily been targeted towards countries which needed the most assistance (Figure 8). In particular, relative to GDP, Spain received less of an increase in EIB investments than Sweden between 2010 and 2012; Portugal has received much less since 2013 even though its output gap still stands at -5.8% (eo98); Italy has benefited less than Austria since 2009 while its output gap over the period was more than twice as large, and Greece has received less of a boost from EIB since

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5. EIB press release 2009-057-EN, 3 April 2009.
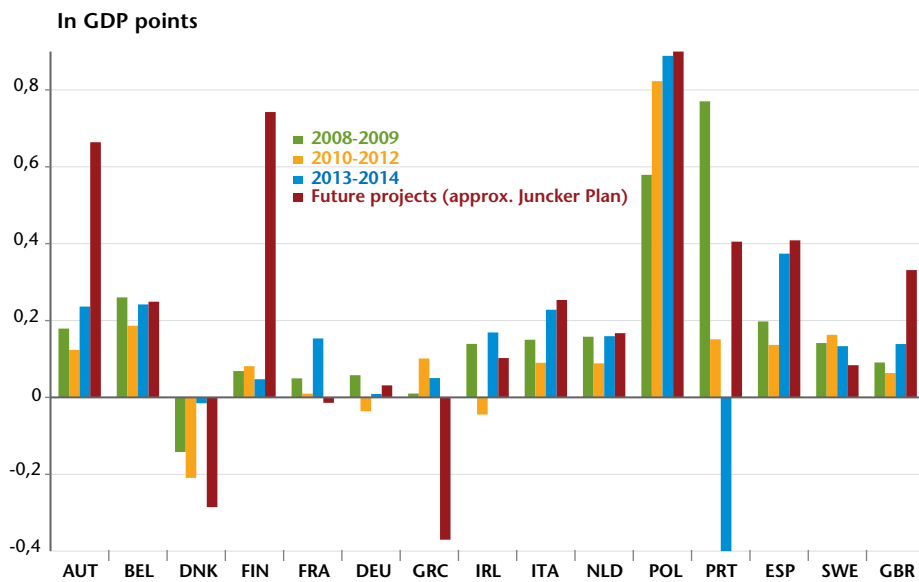6. EIB press release 2013-025-EN, 28 February 2013.

2009 than the United Kingdom. Since the crisis, the country which has bene-fitted the most from EIB's increased activity is Poland, even though it has also been one of the most consistently performing economies throughout the period.

Figure 7. Annual loans disbursed by the EIB (2001-2014, 2014 euros)

In billion euros
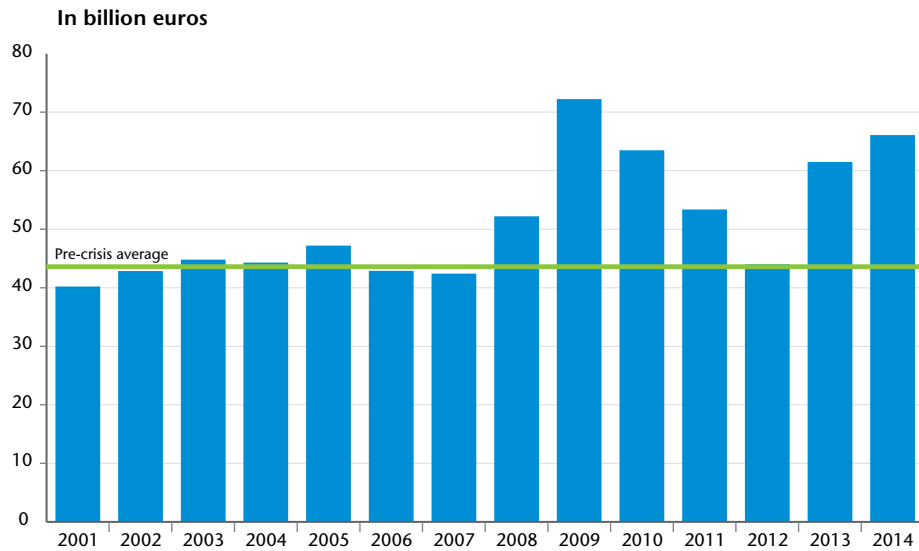
Source: EIB data, 2016 iAGS calculations.

Figure 8. Increases in EIB lending activity from pre-crisis baseline

In GDP points

Source: EIB data, 2016 iAGS calculations.

The increase over baseline lending for future projects in the EIB financing pipeline can be used as a proxy for the investment increment attributable to the Juncker Plan. It should be noted that as of November 2015, only 9 projects had been formally launched under the Juncker Plan label – some of these future projects may therefore not be linked to the Plan. Yet, even if we attribute the entire differential over baseline to the Plan, the main beneficiaries relative to

their GDP, Austria, Finland and Poland are not the countries in the direst need of additional investments in Europe. In particular, Greece would experience a decrease from baseline EIB lending.

To be most effective, the Juncker Plan would need to target those countries that have experienced the worst investment and output gap to date. As it stands, it follows in the footsteps of previous expansions of EIB activity, increasing the overall balance sheet of the institution while failing to rebalance it geographically. This failure undermines the effectiveness of the EIB's interventions in helping Europe's recovery. The 2015 iAGS report (Chapter 3) set out a model by which fresh bond issuance by the EIB could be incorporated within the ECB's QE programme, financing additional public investment by the Member States.

Box 5. The Reports of the Five Presidents and the policy proposal of the Commission

The recent Report of the Five Presidents has highlighted the necessity of progress in the EU in four directions: achieving "a genuine Economic Union, (…) a Financial Union, (…) a Fiscal Union, (and) a Political Union". The associated roadmap for completing the EMU includes a greater focus on employment, a better implementation of the Macro Imbalances Procedure, a better assessment of fiscal stance and fiscal sustainability, the completion of the Banking Union and the launch of a Capital Markets Union. They thus point to a very large set of ambitions which renews the debate about the consistency of the existing 6-pack, 2-pack and fiscal compact, which were mainly related to fiscal and competitiveness issues, and are now encompassing the issue of financial stability with the introduction of Banking and Capital Markets Unions. The Report raises an important question: is it possible to close the unemployment gap, achieve public finance sustainability, reduce macro imbalances, and ensure the liquidity and solvency of financial institutions at the same moment?

Macro imbalances can be reduced through an improvement in relative competitiveness inside the euro area. Wage moderation, fiscal devaluation, structural reforms concentrated in deficit countries can, in principle, contribute to that but would feed deflationary pressures in the EA. Furthermore, such a policy would decrease internal demand and the induced REER appreciation could reduce external demand gains to zero, leaving an overall reduction in demand. Hence, ensuring a return to price stability and the fight against deflation and fiscal consolidation would be harder. Fiscal sustainability has been mostly achieved through fiscal consolidation and the confidence channel has not proven (to say the least) very powerful in providing a compensation for the adverse effect on growth. As a result, growth and possibly future growth are lowered, rendering the Capital Market Union less appealing. Finally, weight on demand and insistence on competitiveness bring a large external surplus for the EA.

In that context, fulfilling at least partially those contradictory targets, would be better achieved with a combination of an investment plan, a more decisive monetary push, and faster wage growth in surplus countries.

WHATEVER FAILS TO HEAL DIES ONE DAY

The crisis that began in 2008, over seven years ago, just keeps going. While the developed countries, including the euro area, finally appear to be heading towards a sustainable recovery, a new weak point seems to be arising, this time in the emerging countries. Although these countries had made it through the depths of the crisis and the slowdown in world trade while limiting the overall losses to their economies, they are now being hit by a combination of factors, including weak growth in the developed countries; instability caused by the winding down of highly expansive monetary policy; capital flows in search of higher yields; the slowdown in the largest emerging economy, China; and falling commodity prices.

This new shock is coming just as the euro area is emerging from a new manifestation of its institutional weaknesses and when the signs of the recovery that began in 2014 are still too weak to bring down unemployment quickly. The slow pace of adjustment, along with an inability to implement economic policy measures, is creating a feeling that the path to regaining full employment, to adjusting current account imbalances, to making the investments needed to ensure prosperity and ultimately the sustainability of public finances, is a very narrow one indeed. In this race between deflation and the deleveraging of public and private agents, the recovery seems fragile, incapable of brightening the medium-term outlook, and leaves no choice but resignation to a slow and painful adjustment.

While the situation in the emerging economies will have a significant impact (notably via the downturn in world trade), this does not, however, call into question our scenario for a European recovery (see Table 1), but it will be a little more fragile. GDP will grow by 1.8% in 2015 (respectively 1.6% in the euro area), 2.1% in 2016 and 2.0% in 2017 (respectively 2.0 and 1.9% in the euro area). While this represents a significant pick-up in pace compared to 2011-2014, the fact remains that the recovery looks moderate in light of the backlog of activity built up since 2008. This underperformance reflects the European economy's inability to make investments that stimulate short-term demand and create the conditions for future growth. While some are expressing concern about a policy of excess liquidity, the credit situation in the euro area points instead towards continued sluggishness, reflecting the continued deleveraging of private and public agents, both financial and non-financial. The balance sheet adjustment is not over and it will lead to a long-lasting downward pressure on prices. Inflation is low due to the decrease in energy prices but it might remain low due a persistent slack on the labour market if recovery is not given a real chance.

Table 1. Summary of iAGS 2016 forecasts

	GDP growth in volume (%/y)			2015 revision	2016 revision
	2015	2016	2017	(difference from March 2015 forecast)	(difference from March 2015 forecast)
DEU	1.8	2.0	1.8	+0.4	-0.3
FRA	1.1	1.8	2.0	0.0	+0.1
ITA	0.8	1.6	1.2	+0.3	+0.9
ESP	3.2	3.4	3.0	+1.1	+1.1
NLD	2.0	1.7	1.8	+0.6	-0.2
BEL	1.3	1.5	1.4	+0.1	+0.1
FIN	0.3	1.0	1.5	-1.0	-0.2
AUT	0.8	1.4	1.7	-0.5	-0.2
PRT	1.6	1.8	1.8	+0.2	-0.2
GRC	0.1	-0.1	1.8	-1.8	-2.0
IRL	6.4	3.7	3.6	3.6	+1.1
EA	**1.6**	**2.0**	**1.9**	+0.3	+0.4
GBR	2.5	2.0	1.8	+0.4	+0.2
SWE	2.7	2.9	2.7		
DNK	1.8	2.0	2.0		
EU-15	1.7	2.0	1.9		
13 new MS	**2.8**	**3.2**	**3.2**		
EU-28	**1.8**	**2.1**	**2.0**	+0.3	+0.4

Sources: IMF; OECD; national accounts; iAGS 2016 calculations and forecasts, november 2015.

1. An environment that is still favourable…

In 2015, the shocks that had deepened the recession – a restrictive fiscal policy and tighter financial conditions due to the sovereign debt crisis – are no longer weighing on demand. The ECB helped to reduce sovereign risk by announcing the Outright Monetary Transactions (OMT) in September 2012 and then improved financial conditions and boosted the low euro by implementing a policy of quantitative easing. In terms of fiscal policy, while in some countries the consolidation phase is far from over, the measures being taken are less frequent and smaller in scale. Furthermore, growth will also be fuelled by the fall in oil prices, which seems persistent. The gains in purchasing power being enjoyed by consumers should stimulate private consumption. These various factors clearly reflect an environment that is much more favourable and propitious for growth. Finally, only the slowdown in China is significantly hurting Europe's economies.

The fall in oil prices seems to be long-term

The fall in oil prices, which in 2014 had seemed temporary, is continuing, with the symbolic threshold of 50 dollars finally breached. This is boosting house-hold purchasing power and cutting companies' production costs, and it should result in an increase in private consumption as well as investment, as business

margins recover. These adjustments could nevertheless be slow, and depend in particular on how long agents anticipate that the lower prices will last. House-holds could save this extra income and businesses could put off investing, preferring to wait for an improvement in demand. According to our estimates, lower oil prices will have a positive impact on GDP of around 0.5 point in 2015 in the main European countries.

Monetary policy: QE is contributing to a weaker euro

While the low inflation being experienced in all the developed countries is boosting household purchasing power, it is also a source of concern for central banks with their mandate to preserve price stability, which is reflected in practice by an inflation target of close to 2%. Although recent price dynamics have mainly resulted from the drop in the price indices of energy, core inflation has yet stabi-lized at a low level, particularly in the euro area (0.9% in Q3 2015[1], year on year). The persistently high level of unemployment in the euro area – the unemploy-ment rate in the zone stood at 11% in August 2015, against 7.2% in early 2008 – reflects a situation of under-activity, which is continuing to rein in both nominal and real wages.

In this context, the ECB and the Bank of England are continuing to support economic activity. The key rates have remained at very low levels, and the central banks have retained or expanded their quantitative easing measures, which is leading to an increase in the size of their balance sheets (Figure 1) and helps make it possible to maintain current financial conditions. In the case of the ECB, this support is expected to increase in the coming months. Meanwhile, the US Federal Reserve and the Bank of England could start to normalize monetary policy.

**Figure 1. Size of the central bank balance sheets**
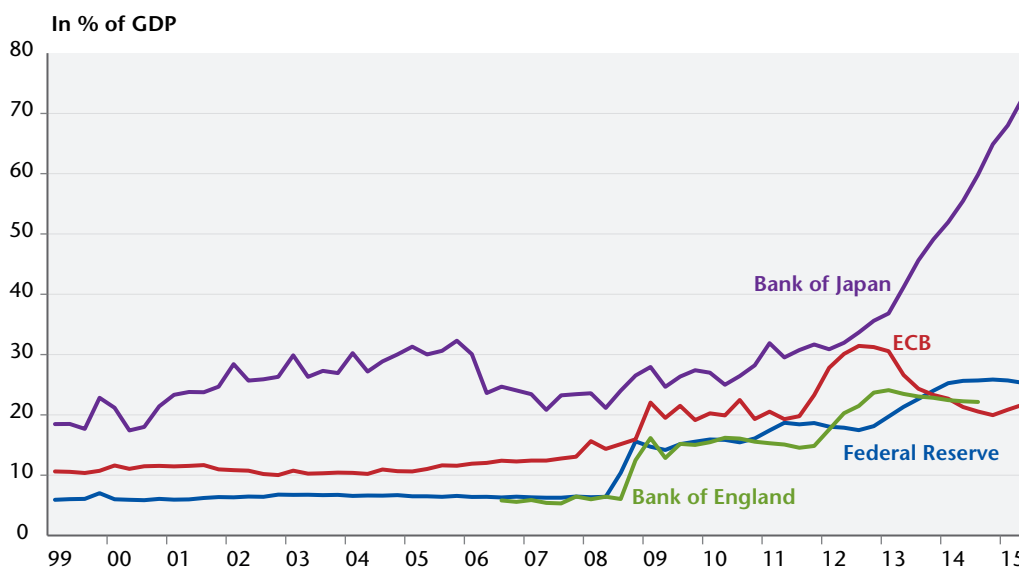
Sources: ECB, BoE, BoJ, Federal Reserve.

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1.   In the United Kingdom, core inflation was 1.1% in the third quarter whereas the consumer price index stagnated over one year.

Growth in both countries has been much more dynamic and robust than in the euro area as a whole or in Japan, and the unemployment rate – although it only partially reflects the labour market situation – has fallen significantly. The Chair of the Federal Reserve has also hinted on several occasions that it was preparing to raise interest rates. However, the turmoil since the summer in the emerging countries is feeding uncertainty about macroeconomic risk and prompting the Fed to exercise caution. But when the first rate hike will finally be decided is undoubtedly only a question of timing. From then on a gap will open up in monetary policy, which would push down the euro and the yen, adding another channel for the transmission of monetary policy to activity and prices.

Moreover, part of the fall in the euro experienced from mid-2014 reflects market expectations about the respective announcements of the ECB and the Federal Reserve. This fall was, for instance, interrupted in March 2015 (Figure 2) due to the declarations of Federal Reserve Chair Janet Yellen concerning the timing of US monetary policy in light of growing uncertainty about the global economic and financial situation. As policy decisions will be taken in early 2016, we anticipate a further depreciation of the euro, which should stabilize at 1.05 USD from the second quarter of 2016. The euro area countries should then be more competitive vis-à-vis the rest of the world. These gains will however be mitigated in so far as the fall in the euro will not be the same vis-à-vis all currencies. The currencies in the emerging countries in particular should continue to depreciate vis-à-vis the dollar. The depreciation measured by nominal and real effective exchange rates will be less than the euro's depreciation relative to the dollar. All else being equal, the improvement in the price competitiveness[2] of the four main euro area countries that has been observed since 2014 and is expected

Figure 2. Euro exchange rate

Sources: Datastream, ECB.

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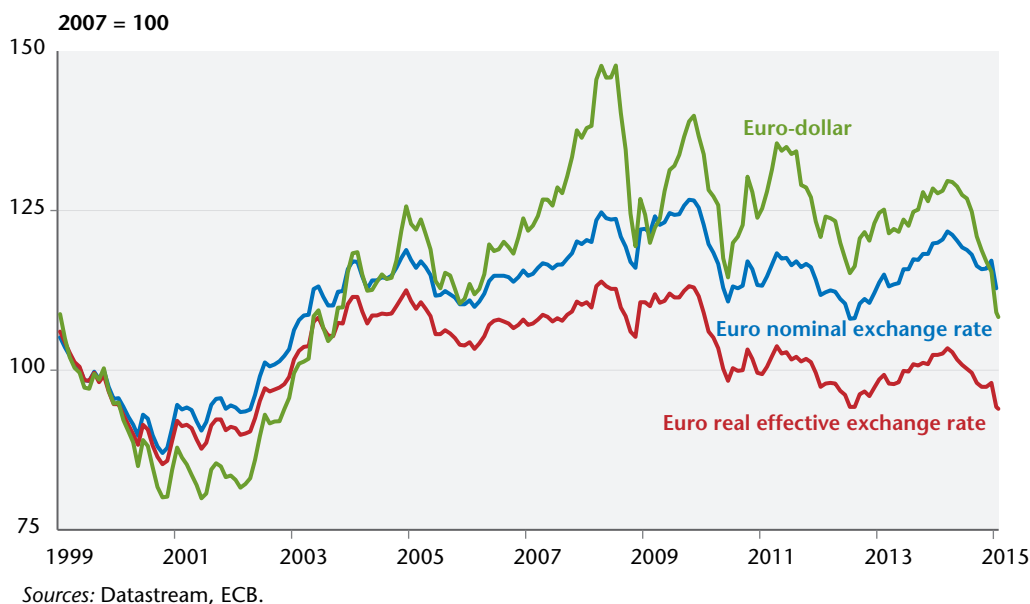
2.   Note that the gain in competitiveness also depends on the dynamics of export prices in each country and thus on changes in the real exchange rate.

to continue in 2015-2016 should lead to an increase in growth in 2016 of between 0.3 point in France and 0.8 point in Spain. The differences in the effect on GDP reflect the impact of variations in competitiveness on export and import volumes in the different countries as well as the economies' degree of openness. Conversely, the appreciation of the dollar and of the pound – in 2015 – will have a negative impact on the GDP of the United States and the United Kingdom.

Fiscal policies: continuing austerity

After the major budgetary efforts launched in 2010, the aggregate fiscal stance of the Euro Area, measured by the change in the structural balance, will be slightly expansionary in 2015 and 2016 (Table 2). According to the 2015 Stability programmes, the structural adjustment will resume in 2017, with an expected adjustment of 0.2 percentage point of GDP.

It is accepted that the weighted sum (by their share of EA GDP) of country-level change in structural balance is a good measure of the aggregate fiscal stance. However, the computation of the structural balance relies on the assessment of potential growth and the output gap of each Member State. This is more cumbersome because the potential output is unobservable and its measure is uncertain by nature. For instance, using the budgetary data from the 2015 Autumn Forecast published by ECFIN, corrected by the output gap published by OECD in their last Economic Outlook modifies the former conclusion: the aggregate fiscal stance becomes neutral in 2015. Beyond this technical issue it is clear that the fiscal policy will be more neutral during the period 2015-2016 than it had been between 2010-2014.

Table 2. Aggregate fiscal stance (change in structural balance)

	2014	2015	2016	2017
iAGS	0.1	-0.1	-0.1	0.2
ECFIN, Autumn Forecast	0.3	-0.1	-0.1	-0.1
ECFIN, based on OECD's output gap	0.4	0.0	-0.1	-0.1

Note: The 2017 change of structural balance is computed on a no-policy change scenario by ECFIN, and the iAGS scenario takes into account commitments of Member States in their last Stability Programmes.
*Source:* Ameco, OECD, Draft Budgetary Plans and Stability Programmes.

If the Euro Area fiscal stance is globally neutral – or slightly expansionary- for the next years, there is still great heterogeneity within the monetary union, depending on the position of the different Member States vis-à-vis the commitments of the Stability and Growth Pact (SGP). The ECFIN data suggest that in 2015 countries in the corrective arm of the SGP contribute to the decrease in the EA structural balance. This suggests not only that fiscal policy is globally expansionary but it also suggest that the expansion is concentrated in countries with significant economic slack. This assessment relies on the evaluation of the potential growth of the ECFIN, especially for Spain (the Spanish structural balance is supposed to decrease by 0.7 point of GDP according to ECFIN, but this depend on a very low evaluation of its potential growth). However, if we use the same budgetary data but correcting it with the OECD data for potential output, the
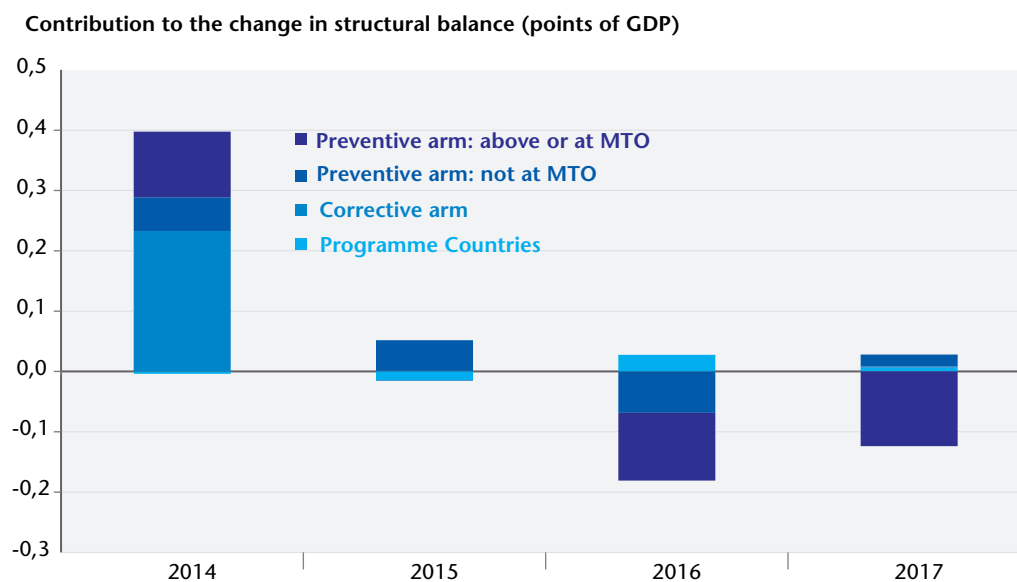
message is radically different. The contribution of countries in the corrective arm of SGP to the aggregate fiscal stance is neutral in 2015 and slightly recessionary in 2016. This example suggests that the evaluation of fiscal policy is dependent of the underlying evaluation of the potential output (Figure 3).

Figure 3. Aggregate fiscal stance and stability and growth pact

a) Using Ameco data for fiscal policy and output gap

Contribution to the change in structural balance (points of GDP)
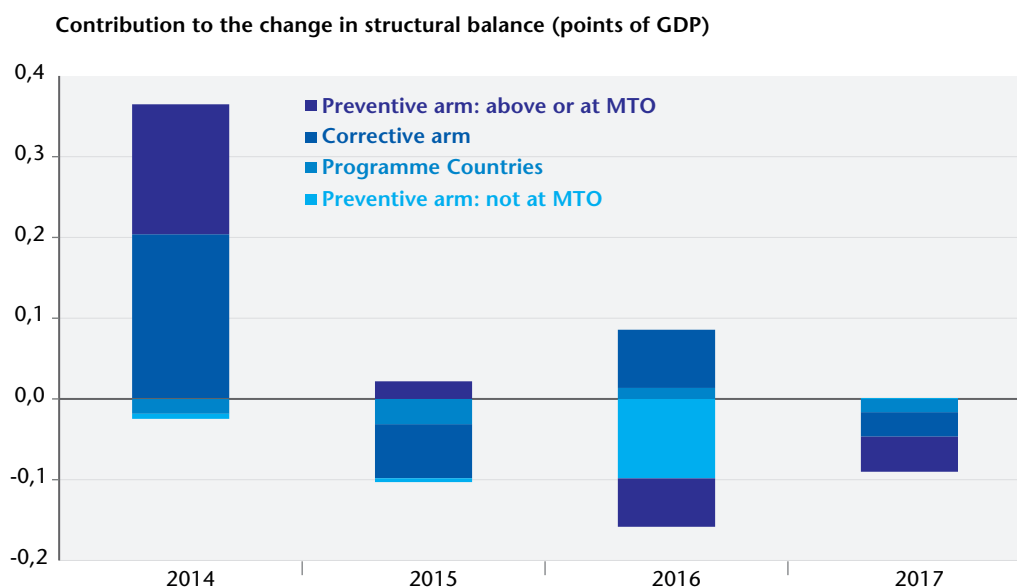
b) Using Ameco data for fiscal policy and OECD data for output gap

Contribution to the change in structural balance (points of GDP)

Source: Ameco (Autumn Forecast 2015) and OECD (EO 97).

Germany will use some of its fiscal leeway room to produce an expansionary fiscal impulse (+0.4 point per year). France and Spain are still in excessive deficit procedures but their fiscal impulsions diverge in 2015. The fiscal adjustment is sizable in France (0.5 point) but Spain take advantage of the cyclical improve-

ment of its public finances and reduces its structural balance (-0.4 GDP point). Italy is in the preventive arm of the SGP but its structural balance remains below its MTO. However, Italy will implement a positive fiscal impulse in 2015 (+0.3 point of GDP) and in 2016 (+0.5 point). Recently the Italian fiscal policy ceased to weigh on growth in relation to the decrease in the sovereign interest rate and to some flexibility in the application of the SGP. In the United Kingdom, the Conservative government re-elected in May 2015 has stated that it will prioritize reducing the budget deficit. The cuts in public spending announced were large enough to make the fiscal impulse negative: -0.6 GDP point in 2015 and -0.7 point in 2016 and 2017 (Table 3).

Table 3. Change in structural balance

In GDP points

	2014	2015	2016	2017
DEU	-0.1	-0.4	-0.4	0.1
FRA	0.2	0.5	0.3	0.3
ITA	-0.1	-0.3	-0.5	0.3
ESP	0.5	-0.4	0.1	0.1
NLD	0.7	-0.3	-0.2	-0.1
BEL	-0.1	0.2	0.4	0.3
PRT	0.8	0.7	0.3	0.1
IRL	0.6	-0.2	0.1	1.0
FIN	-0.5	0.6	0.3	0.2
AUT	0.5	0.0	-0.3	0.4
EA	**0.1**	**-0.1**	**-0.1**	**0.2**
USA	-1.1	-0.2	-0.1	0.3
JPN	-1.1	-0.6	-0.7	-0.3

Source: iAGS calculations and forecasts, November 2015.

If the change of the structural balance shows that the fiscal policy is neutral in the whole Euro Area, the assessment about its economic impact should be completed. First, among the principal economies of the Euro Area, the fiscal impulsion is essentially realized through tax cuts (in 2016, discretionary tax measures are negative in France, Germany, Spain, Italy, the Netherlands, and Austria) and besides those tax cuts are partially compensated by efforts in primary expenses. The combination of those discretionary measures can have a recessionary impact. According to several authors the multipliers of public expenditures – which are decreasing and are recessionary – are higher than those associated to tax changes, which are decreasing and should have an expansionary impact. The former is particularly true when output gaps are negative. When the composition and the localisation of the fiscal impulses are taken into account, the assessment of the aggregate fiscal stance is modified (Table 4 and Box for a technical discussion). Fiscal policy will be slightly recessionary in 2016 (-0.1 point of GDP) in spite of the decrease in the aggregate structural balance. This paradox can be explained by the geographical breakdown of the impulses, which has low impact in Germany (increase of 0.1 point of the German GDP asso-

ciated with a fiscal impulse of 0.4 point) and the composition of the expansion in Italy (tax cuts for 0.7 point of GDP with a multiplier of 0.6 and an effort in expenses of 0.2 points of GDP with a multiplier of 1.5) and in Spain (effort in expenses of 0.2 point of GDP and tax cuts for 0.2 point of GDP: if the fiscal stance looks neutral the impact on GDP is negative).

Table 4. Impact of fiscal policy on euro area GDP

In GDP points

	2014	2015	2016	2017
iAGS	0.0	0.1	-0.1	-0.2
ECFIN, Autumn Forecast	-0.1	0.2	0.0	0.1
ECFIN, based on OECD's output gap	-0.3	0.0	-0.1	0.1

Source: Ameco (Autumn Forecast 2015) and OECD (EO 97).

Box. A new measure of the aggregate fiscal stance

In order to assess about the global orientation of fiscal policy the weighted sum of changes in structural balances is the traditional indicator used in the European Semester. The structural balance of a country c at a date t is computed by correcting the headline budgetary balance of the cyclical conditions (measured by the output gap) and of the one-offs that have a non-permanent impact of the budgetary balance:

$$\Delta \, Structural \, balance_{ct} = Budgetary \, Balance_{ct} - \varepsilon \times Output \, Gap_{ct} - One\text{-}offs_{ct}$$

However, this measure neglects some recent advances in economic theory about the impact of fiscal policy. First, the fiscal multiplier is dependent of the position in the cycle and it tends to be bigger in countries with severe economic slack.[3] Second, the fiscal multiplier is dependent on the precise measures that are implemented. It can be shown empirically that cutting public expenses, especially public investment,[4] has an immediate and large impact while cutting taxes has smaller but longer effects on GDP.

We propose to evaluate the EA fiscal policy by its impact on GDP rather than only regarding the budgetary impact.[5] The change of the structural balance is split between the contribution of the discretionary change in taxes[6] $((New \, Taxes_{tc}) \, / (GDP_{tc}))$ and the contribution of the evolution of public expenses to the structural balance. In order to compute the impact on GDP of discretionary fiscal policy, each component of fiscal policy is multiplied by a cycle-dependent multiplier.[7] Finally, the country-level fiscal impact is weighted by the share of the Member State in the EA current prices GDP.

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3. See Blot, Cochard, Creel, Ducoudré, Schweisguth and Timbeau (2014) for a survey on this topic.

4. For this particular topic see IMF (2014).

5. In the US, the Brookings Institute publishes a fiscal barometer built by the Hutchins Center on Fiscal & Monetary Policy (http://www.brookings.edu/research/interactives/2014/fiscal-barometer) very close to our proposal.

6. Based on ECFIN's evaluation available in the Ameco database.

$$AFS_t = \sum_{\forall c \in EA} \omega_{tc}$$

$$\times \left[\left(m^{tax}(OG_{tc}) \times \frac{New\ Taxes_{tc}}{GDP_{tc}} \right) + \left(m^G(OG_{tc}) \times \left(\Delta Structural\ balance_{tc} - \frac{New\ Taxes_{tc}}{GDP_{tc}} \right) \right) \right]$$

This simple measure of the aggregate fiscal stance, does not take into account the possible spill-overs generated by fiscal policy among Member States.

Slowdown in trade from China

The current slowdown in the Chinese economy is negative shock that will undermine growth not only in the emerging countries but also in the developed countries. The slowing growth in China will directly affect Chinese imports, which will rise by 4.2% in 2016 and 2017 (4% in 2015), compared with the 10% average growth experienced between 2006 and 2013. This will result in a fall in GDP which depends not only on China's weight in the trade with the respective country but also the country's degree of openness. In Europe, Germany will be hit hardest, with a cumulative effect from 2014 to 2017 of more than 2 GDP points. Then come the United Kingdom, Italy and France, with a cumulative effect of close to 1 GDP point. Spain will be least affected, with a cumulative effect of around 0.5 GDP point.

However, it must be added that this analysis quantifies the effect of the slow-down in China only via the trade channel, and this impact depends mainly on China's weight in world trade.[8] Neither the financial impact – the impact on the FDI flows and portfolio flows that can be redirected to the advanced countries – nor the indirect effect on oil resulting from a decline in global demand are taken into account here, meaning that the total effect could be weaker. Because of this, the hypothesis adopted for oil prices integrates the indirect effect of the slow-down of the Chinese economy on demand for oil.

In this light, while the sum of the shocks had a strongly recessionary impact during the 2011-2014 period, they will have a much weaker impact, or even a slightly positive impact in some countries like Italy and Spain (Table 5). The significant difference for the euro area countries makes it possible to appreciate the dynamics of the recovery that is gradually developing. The difference is particularly significant for Spain, since, according to our estimates, the cumulative

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7.   The same that is used for simulations in the iAGS model. The maximum multiplier for public expenses is defined at 1.5 when the output gap is smaller than 3 points of potential GDP and it reaches its minimum value of 0.2 for output gaps bigger than 3 points of potential GDP. When the output gap is closed both multipliers are equal to 0.5. For tax discretionary measures: the maximum multiplier is equal to 0.6, the minimum is equal to 0.3 and for a closed output gap it is equal to 0.5. Between those values of output gaps, the multipliers evolve in a linear way with respect to the economic slack.
8.   Since 2013, China has become the largest trading power in the world. According to the WTO, its weight in world merchandise exports rose from 8.7% in 2007 to 11.7% in 2013, and in imports from 6.7% to 10.3%.

impact of the shocks on GDP amounted to a negative 1.4 points in 2014, compared with a cumulative positive impact of 0.9 point in 2015. These elements help to appreciate the improvement in Europe's growth prospects.

Table 5. Summary of the impact of the shocks
(oil prices, credit conditions, competitiveness, fiscal policies, Chinese slowdown)

In GDP points

	2011	2012	2013	2014	2015	2016	2017
DEU	-1.4	-2.3	-0.9	-0.7	0.3	0.4	-0.1
FRA	-1.4	-2.0	-1.5	-0.9	0.0	-0.1	-0.4
ITA	-1.0	-4.0	-1.5	-0.4	1.1	0.9	-0.2
ESP	-2.0	-4.9	-2.6	-1.4	0.9	0.7	-0.5
EA	-1.4	-2.9	-1.4	-0.8	0.5	0.4	-0.3
GBR	-2.8	-1.2	-1.9	-0.6	-0.6	-0.6	-1.1

Sources: iAGS calculations and forecasts, November 2015.

2. ... but a timid recovery

The upturn that began in 2014 continued in 2015. Growth in the first half of 2015 came to 1.4% year on year. All the major countries are now racking up positive growth rates, including Italy (for the first time since 2011). The GDP of the countries that received financial assistance from Europe and the IMF also made marked progress, although Greece has returned to recession in the third quarter of 2015, in the wake of its new budget cut plans and the constraints resulting from capital controls.

Household consumption in the euro area has held steady since mid-2014, benefiting initially from a growing total payroll (+2.2% yoy) and then from the disinflation resulting in particular from oil prices. It should remain buoyant from 2015 to 2017. Nominal household income will benefit from continued job creation: after a rise of 0.4% in 2015, employment will increase by nearly 1% in 2015 and 2016. The savings rate will decline in most countries in a context of falling unemployment rates, which should boost consumption. It would increase in the euro area by 1.6% on average in 2016 and 2017. Household consumption is currently the main driver of British growth, and, in a context of low unemployment (5.5% in June 2015), will remain so up to 2017. British Households have seen their purchasing power improve significantly over the past year, under the dual impact of slowing inflation and nominal wage increases. Wages, which had fallen in real terms since the start of the crisis, have recently begun to rise. Nominal wages are now up 3% in the economy as a whole, and our forecast foresees continued growth at this rate. But the steady rise in inflation to around 2% at the end of the period will gradually undermine the gains in household purchasing power. Finally, after a seven-year fall, housing investment in the euro area began to grow timidly in 2015, mainly due to the upturn in Spain. In France, this trend will only take shape in late 2015, as the indicators improve (building permits and housing starts).

Ultimately, housing investment should gradually pick up pace, reaching 3.1% on average in the euro area in 2017. Buoyed by a favourable financial environment and anticipated demand, and by economic policy measures (tax cuts on corporation and business tax in Italy; reform of corporation tax in Spain; the implementation of the CICE tax credit and the Responsibility Pact in France), the rate of productive investment in the euro area should rise, reaching its mid-2008 peak by end 2017. As for the United Kingdom, business investment has recovered significantly since the onset of the crisis. The investment rate is now approaching pre-crisis levels, but has not yet regained the peak it reached in the late 1990s.

The euro area will enjoy a positive contribution from foreign trade (0.2 point in 2016 and 2017). The demand for exports should grow at a pace of around 4% per year, spurred mainly by the industrialized countries. In 2017, France and especially Spain should gain market share due to the favourable impact of exchange rates and of national policies to improve competitiveness. In Italy, market shares should stabilize, while they will tend to fall slightly in Germany. After a very good first half year in 2015, including exceptional aircraft sales, a correction is being integrated for the second half year, which takes into account diminished auto exports as a result of the Volkswagen scandal. In 2016 and 2017, German companies will lose market share within the euro area, but the depreciation of the euro will ensure that they can serenely continue exporting to countries outside EMU (63% of German exports), so long as they maintain their non-price competitiveness.

Finally, growth in the euro area as a whole should climb to 1.6% in 2015 and 2.0% in 2016 and 1.9% in2017, with the United Kingdom at 2.4% in 2015, but slowing to 1.8% in 2017. Among the euro area countries, Spain's GDP should grow by over 3% a year, making up part of the losses in past production. This should trigger a process of Spain's catching up with Germany and France (Figure 4), which should perform comparably, with a slight advantage for France from 2016. Finally, Italy will still be lagging, with a near-zero potential growth rate and persistent structural difficulties. The ILO-based unemployment rate, which peaked in mid-2013 at 12.1%, has fallen to 11.1% in mid-2015. It will continue to fall, to 9.7% in late 2017, but this is still well above its pre-crisis level (7.2% in early 2008).

With the exception of Germany, where the unemployment rate is at a historic low (4.4% in mid-2015), the ranks of the jobless are still very large in the other countries. In Spain, despite a decline that began in late 2013, the unemployment rate was still 21.9% in the second quarter of 2015. In France and Italy, unemployment did not really begin to fall until early 2015, but it is expected to continue to drop in the coming quarters (Figure 5). This situation will have durable consequences on the labour market (see Chapter 2 for details) and will fuel inequalities within and among European countries.

This scenario should not, however, mask the fragile nature of growth in Europe, which depends in part on positive factors (oil prices and exchange rates for the euro area countries) to compensate or overcompensate for the restrictive effects of fiscal consolidation. In other words, the recovery is not arising so much from an internal dynamic and self-sustaining growth as it is from stimulation by volatile and generally temporary factors.

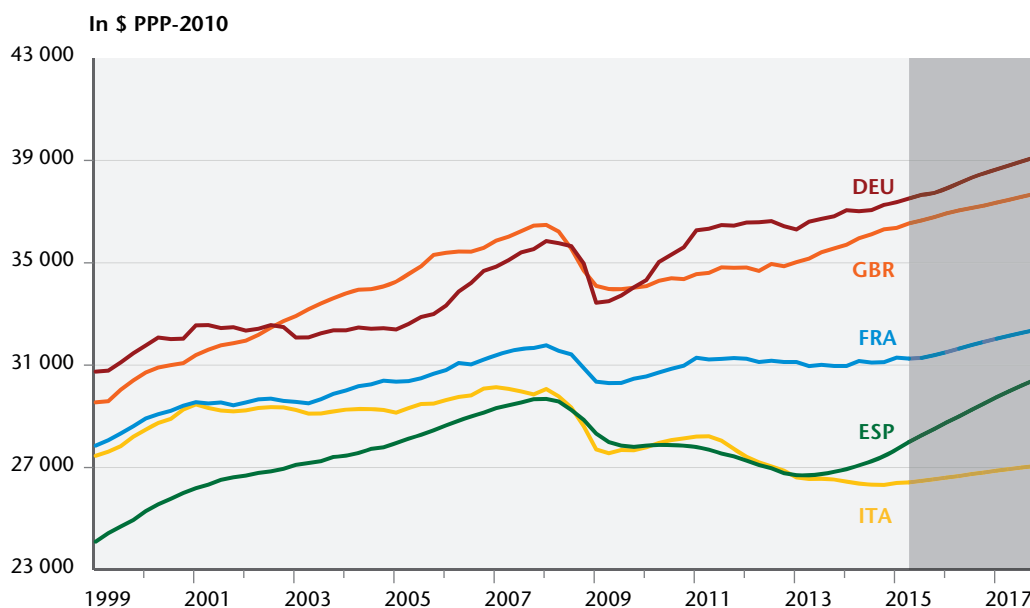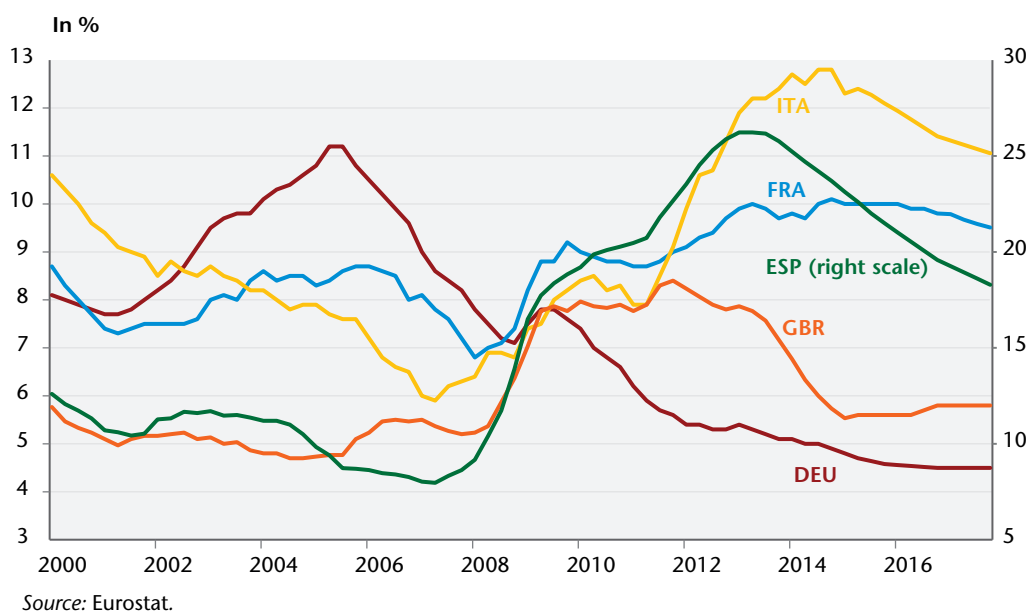**Figure 4. GDP per capita in the European countries**

In $ PPP-2010

Sources: National accounts; iAGS calculations and forecasts, November 2015.

Figure 5. Unemployment rates in the major European countries

In %

Source: Eurostat.

Moreover, the euro area's growth is still rather moderate relative to previous recoveries and to the 2.2% average growth seen between 1996 and 2008. As a consequence, the euro area will still be lagging the United States. While a slow-down in potential growth could be evoked to explain this loss in dynamism, we tend instead to think that it reflects the brakes which have held back activity and which are being released only very gradually. Nevertheless, studies on the consequences of financial crises show that the impact on growth is generally longer and more severe, partly because lending and financing remain permanently

affected by the impact. Two reasons in particular can contribute to this phenomenon. When the boom preceding the crisis has been fuelled by the indebtedness of non-financial agents and by excessive risk-taking in the banking system, the crisis provokes a long-term correction during which the banking system reduces its risk-taking in a pro-cyclical manner and non-financial agents prefer debt reduction to spending.

3. Credit still in low gear

Impact of supply or demand?

The banking system was at the heart of the financial turmoil that plunged the global economy into recession in 2009. The banks generally contributed to the emergence and dissemination of structured products. They significantly increased their exposure to risk and then had to face significant losses once their tangled web of structured products collapsed, which caused a worldwide liquidity and solvency crisis. Governments and central banks were forced to intervene through massive bailouts and by granting unprecedented liquidity. Despite these measures, the correction was brutal, and this has resulted in restricting the supply of credit around the world and especially in the euro area (Figure 6). The need to clean up the banks' balance sheets magnified the 2009 recession. In the euro area, the sovereign debt crisis caused a second shock wave to a banking system that was already fragile and heavily exposed to sovereign risk, creating a vicious circle in which the risks of public and bank solvency were mutually reinforcing.

Figure 6. Bank lending survey to non-financial corporations
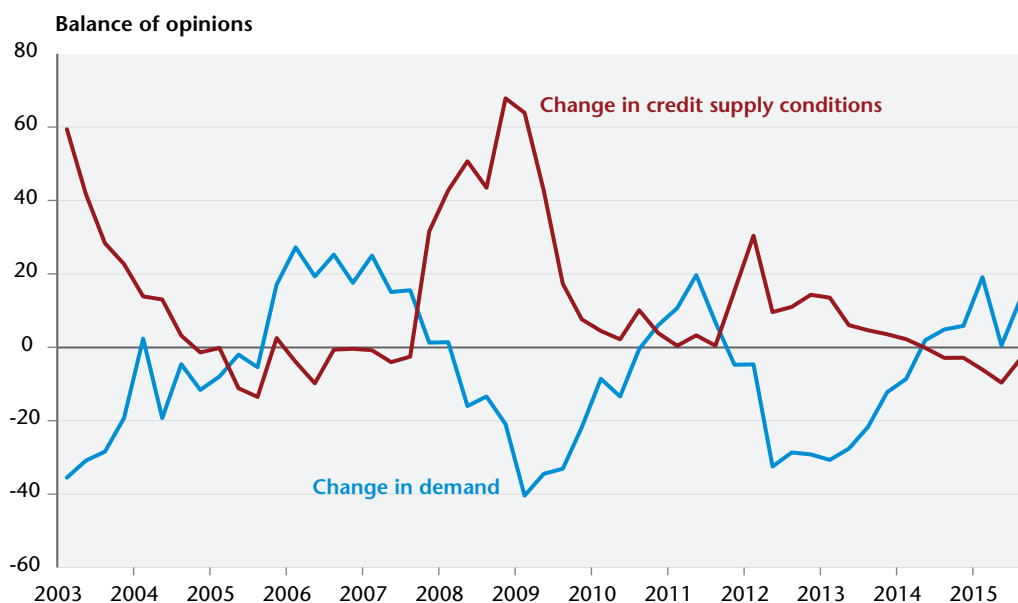
Note: The surveys conducted by the ECB of euro area banks can be used to determine the balance of opinion between institutions that say they have tightened (respectively, loosened) their conditions on the supply of credit. A similar balance can be obtained using a question about changes in the demand for credit.
Source: ECB (BLS survey).

Given the magnitude of the past excesses, the duration needed to consolidate the bank balance sheets is a factor that is further weakening the economies, which may explain the sluggishness of credit and private demand, which had in a way been partially weaned. This is also the risk that prompted the ECB to adopt an array of measures to ensure access to bank liquidity and to stimulate lending. This included in particular the Targeted Long-Term Refinancing Operations (TLTRO), the mechanism set up in 2014 through which the ECB provides liquidity on advantageous terms, but whose amount is conditional on the volume of loans to non-financial corporations (NFCs). However, the amounts allocated in the course of these operations (5 operations since September 2014) were almost always lower than the sums anticipated by the ECB. The corollary of the banks' lack of enthusiasm for this scheme is that lending to financial and non-financial agents in the euro area remains well below pre-crisis levels (Figure 7).[9] Thus loans to NFCs fell from 52.3% of euro area GDP in the second quarter of 2009 to 41.5% in mid-2015. As for households, while mortgages were relatively stable, consumer loans fell by 1.3 points over the same period. On the real estate market, the situation between countries is heterogeneous, with the share of housing loans in France's GDP rising by more than 5 points since the end of 2008, partially offsetting the fall seen in Spain.[10]

Figure 7. Bank sector credit in the euro area

Source: ECB.
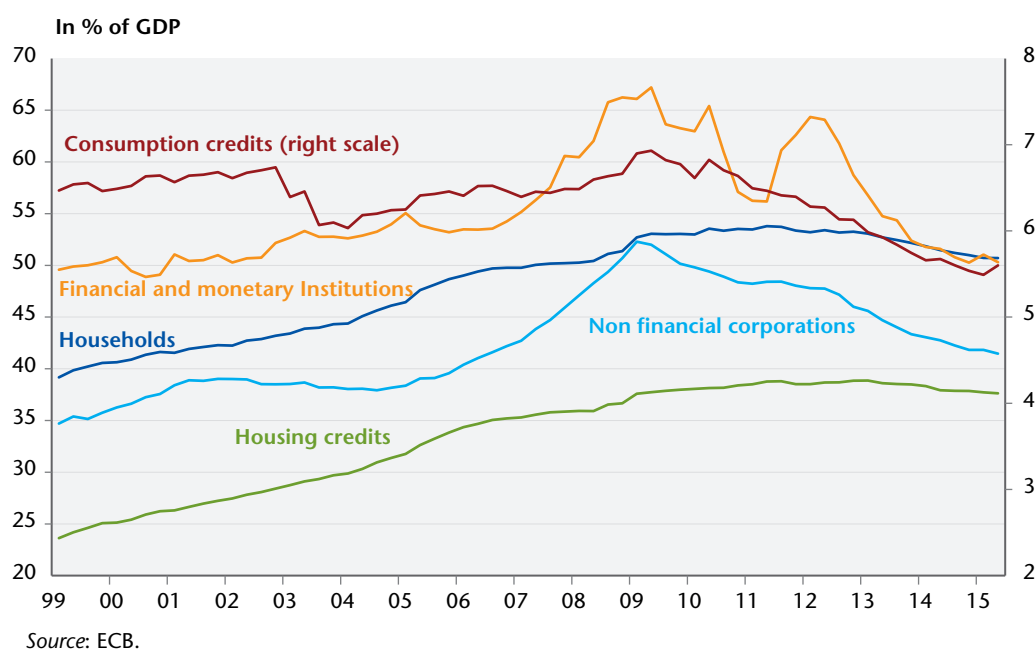
However, the sluggishness of the credit situation does not result necessarily and solely from a problem with the supply of credit. This is in any case what is suggested by the survey conducted by the ECB of euro area credit institutions on

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9.   Note, however, that the production of new loans to households has boomed since the end of 2014, but this undoubtedly reflects redemptions of credit; outstanding loans to households shows a much more moderate increase.

10.   Real estate loans continued to decline in Germany, a trend that has been observed since the early 2000s.

the conditions for credit supply and demand (figure 6). While the euro area insti-tutions reported that they tightened conditions on the supply of credit in 2008-2009 and during the sovereign debt crisis in 2011-2012, they now indicate an easing of credit conditions. The low level of lending would then be due in particular to demand effects that would doubtlessly reflect the desire of house-holds and businesses to reduce debt.

Target: reduction of private debt

The weakness of the recovery also reflects the continued deleveraging of private agents in several of the more fragile euro area countries, while even the strongest countries remain very cautious about debt levels and are not offsetting the decline. In other words, the debt levels of households and NFCs are shrinking in the major European countries (Figure 8). The two countries where household deleveraging has been strongest are Spain and the United Kingdom. As a percent of GDP, household debt has fallen by nearly 15 points in Spain since 2010. Despite the generally more favourable economic situation of German households, they have also continued the deleveraging process that began in the late 1990s. Conversely, French households are taking on debt even though the increase since 2008 has been moderate. While this downward adjustment of household debt is a correction of past imbalances that some countries need to make, the fact remains that this adjustment has constrained household spending in terms of housing investment and consumption.

**Figure 8. Household bank debt in the major European countries**

In % of GDP
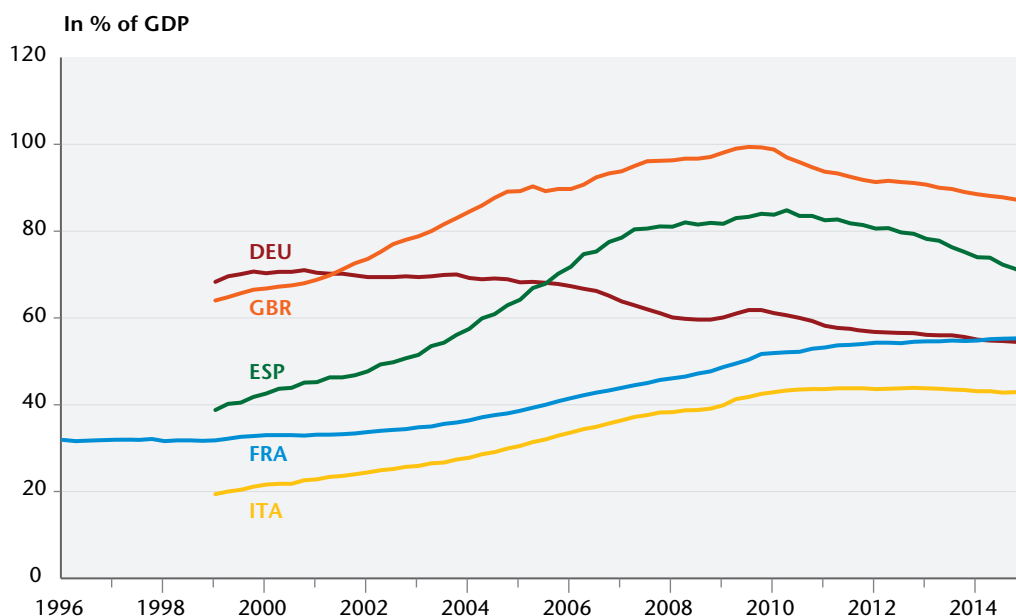
Source: Banque de France.

With respect to business, the debt level of NFCs fell dramatically in Spain, due to the sharp compression of wage costs, from 110% of Spanish GDP in 2010 to 83% in early 2015, while NFC debt stagnated in Italy, and in Germany declined

slightly by 4 GDP points between 2010 and 2015 (Figure 9). During this same period, French companies increased their indebtedness by 8 GDP points, but this was not sufficient to reverse the general trend in the euro area. In the United Kingdom, deleveraging by NFCs also continued, falling by 12 points between 2010 and early 2015.

Figure 9. Bank debt of non-financial corporations in the main European countries
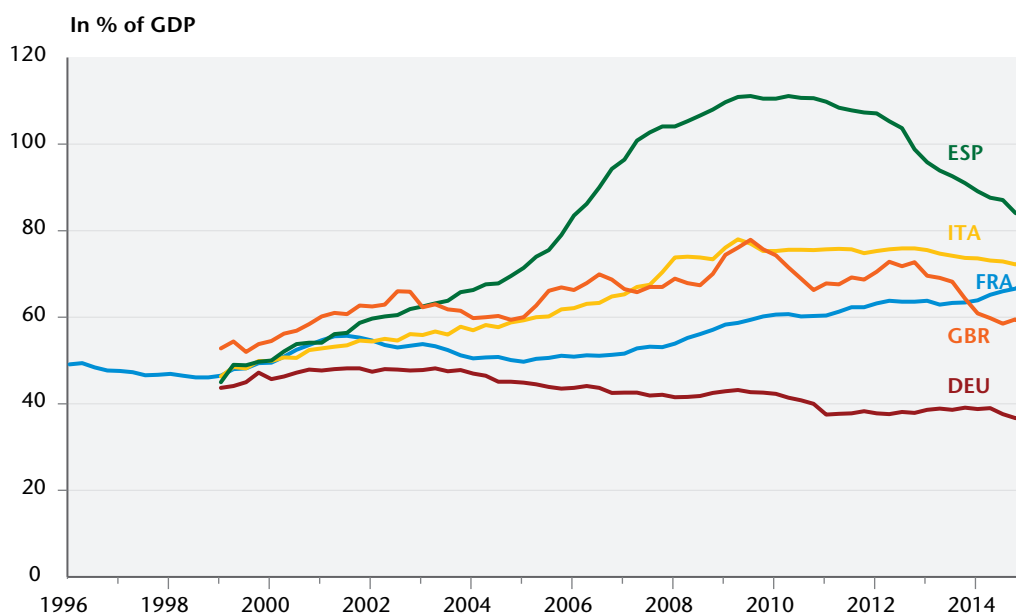
Source: Banque de France.

The crisis that began in 2007-2008 was undoubtedly a debt crisis, but the debt of private agents (financial and nonfinancial) and not sovereign debt. This is now resulting in an ongoing process of cleaning up balance sheets throughout Europe. In the euro area, this process has contributed to the long recessionary phase from which the economy is just emerging. But until these adjustments are completed, spending will be constrained and growth cannot really take off. This critical situation for investment has been recognized by European institutions. The European Commission has consequently announced the Junker's plan precisely to address the problem of the lack of investment in Europe.

The Juncker Plan and the role of EIB since the crisis

On 26 November 2014, the European Commission announced an initiative to launch a 315 billion euro investment plan in Europe. This so-called "Juncker Plan" aims at increasing investment volumes in the European Union, which were still 370 billion below their historical pre-crisis level in 2014. However, the investment package will not result from increased public investments. Rather, it is to be achieved through highly leveraged investments conducted by the European Investment Bank through a new vehicle, the European Fund for Strategic Investments, with a double focus: infrastructure and innovation, and SMEs.

Ultimately the European Union has only mobilized a 16 billion euros guarantee from its budget. Combined with 5 billion of EIB's own resources, this provides the EFSI with 21 billion in initial funding. The remaining 294 billion euros of the Juncker plan are expected to come from the private sector, through a leverage ratio on EIB's investments greater than 15.

The Juncker plan thus turns out to be yet another round of increase of the EIB capital and leverage, the third one since the 2008 crisis. In 2009, the EIB Board of Governors had approved a 67 billion increase in the Bank's subscribed capital,[11] followed in 2012 by a decision of the European Council to increase lending activity by 60 billion over the period 2013-2015, with an annual target of 65 to 70 billion.[12] However, an analysis of EIB's yearly disbursements (Figure 10) reveals that the 2009 spike was short-lived, with annual lending in 2012 falling back to pre-crisis levels, and that both 2013 and 2014 have fallen slightly short of EIB's stated goals.

Figure 10. Annual loans disbursed by the EIB

2001-2014, 2014 euros
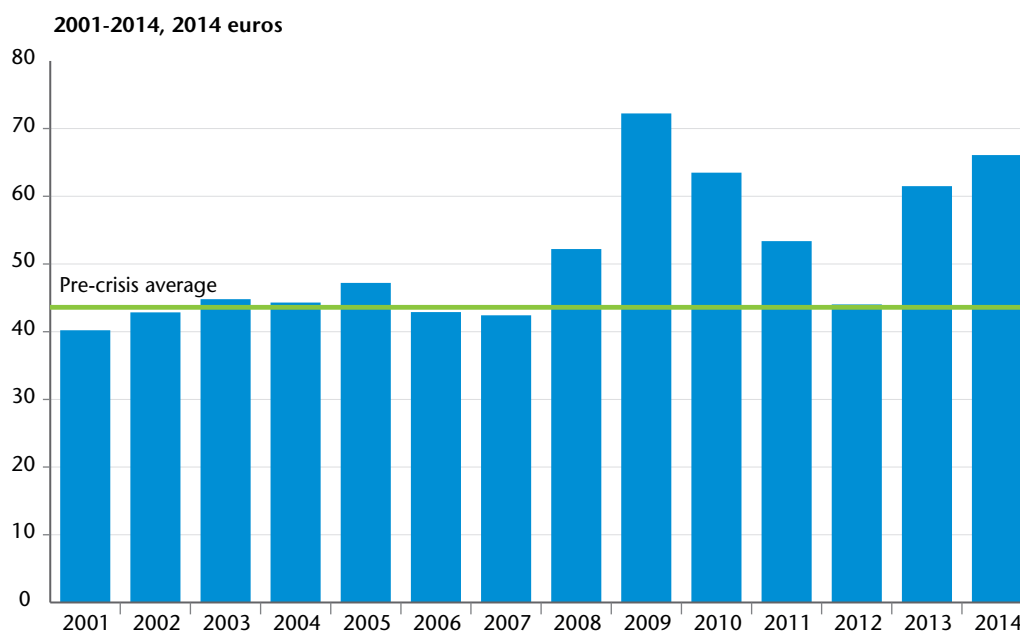
Source: EIB data, iAGS calculations.

In the following sections, we analyze the characteristics of EIB's response to the crisis. We have collected a comprehensive database of all 4,118 projects funded by the EIB over the 2001-2014 period, along with 344 projects currently in the EIB's financing pipeline. We have then carried a detailed analysis of this extensive dataset to identify the geographical distribution of the increase in its lending activity, the nature of that increase, the evolution of the leverage on the projects it financed, and then use these results to assess the current performance and future feasibility of the Juncker Plan.
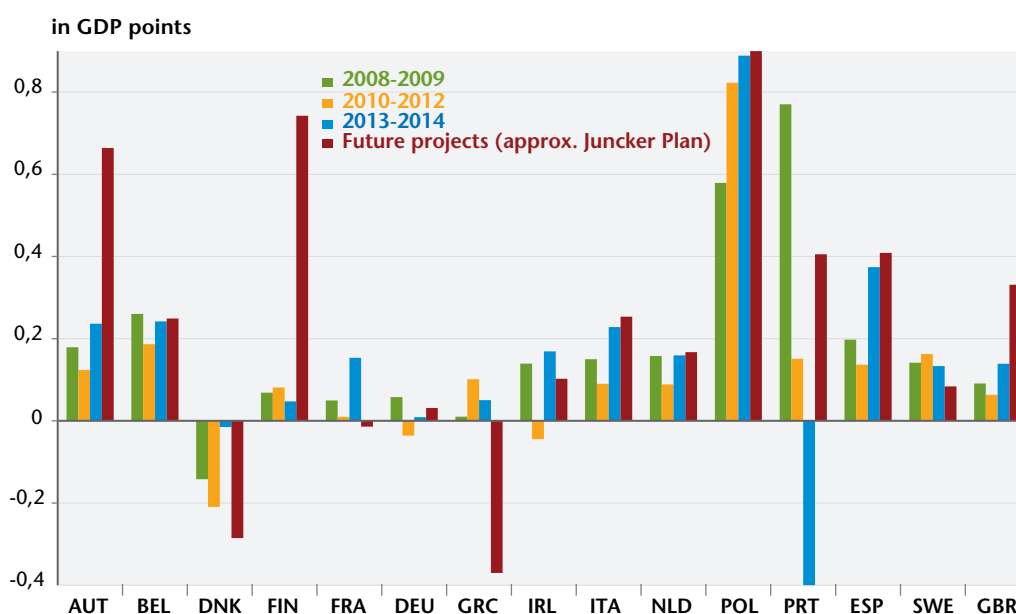
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11. EIB press release 2009-057-EN, 3 April 2009.
12. EIB press release 2013-025-EN, 28 February 2013.

EIB lending does not target countries in crisis

Through these successive increases in lending activity, the EIB has been recast as the European Union's main tool of contra-cyclical economic intervention. Yet, the breakdown by country of the increase in activity since 2009 shows it has not necessarily been targeted towards countries which needed the most assistance (Figure 11). In particular, relative to GDP, Spain received less of an increase in EIB investments than Sweden between 2010 and 2012; Portugal has received much less since 2013 even though its output gap still stands at -5.8%;[13] Italy has benefited less than Austria since 2009 while its output gap over the period was more than twice as large, and Greece has received less of a boost from EIB since 2009 than the United Kingdom. Since the crisis, the country which has benefitted the most from EIB's increased activity is Poland, even though it has also been one of the most consistently performing economies throughout the period.

Figure 11. Increases in EIB lending activity from pre-crisis baseline

in GDP points

Source: EIB data, iAGS calculations.

The increase over baseline lending for future projects in the EIB financing pipeline can be used as a proxy for the investment increment attributable to the Juncker Plan. It should be noted that as of November 2015, only 9 projects had been formally launched under the Juncker Plan label – some of these future projects may therefore not be linked to the Plan. Yet, even if we attribute the entire differential over baseline to the Plan, the main beneficiaries relative to their GDP, Austria, Finland and Poland are not the countries in the direst need of additional investments in Europe. In particular, Greece would experience a decrease from baseline EIB lending.

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13. OECD, *Economic Outlook 98.*

To be most effective, the Juncker Plan would need to target those countries that have experienced the worst investment and output gap to date. As it stands, it follows in the footsteps of previous expansions of EIB activity, increasing the overall balance sheet of the institution while failing to rebalance it geographically. This failure undermines the effectiveness EIB's interventions in helping Europe's recovery.

Credit lines represent a growing share of EIB lending

EIB lending activity comes in two varieties: direct investment in projects, and provision of credit lines – which does not entail any leverage. The share of credit lines in total EIB lending has been increasing continuously since the crisis, to reach an all-time high in 2014 at 36% (Figure 12).

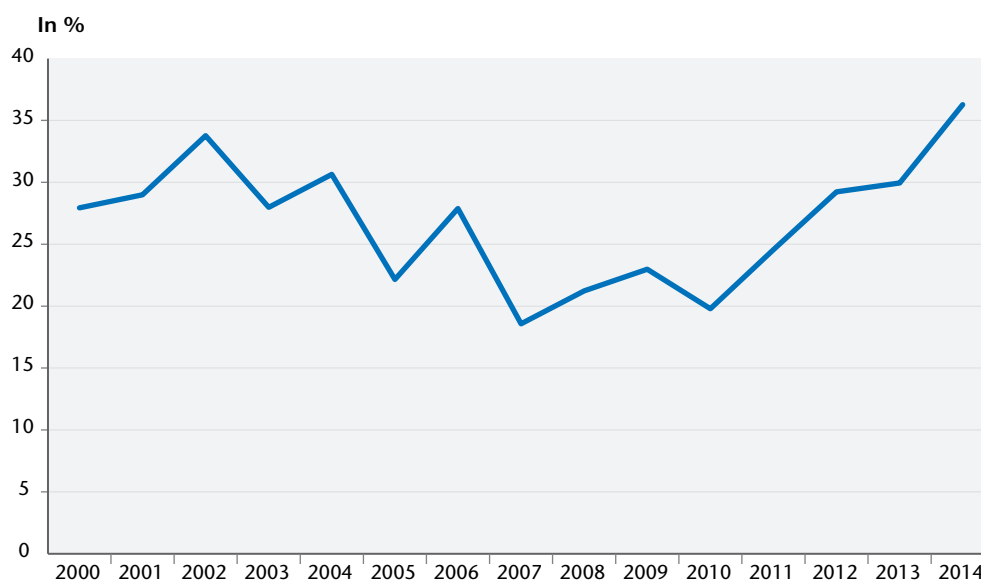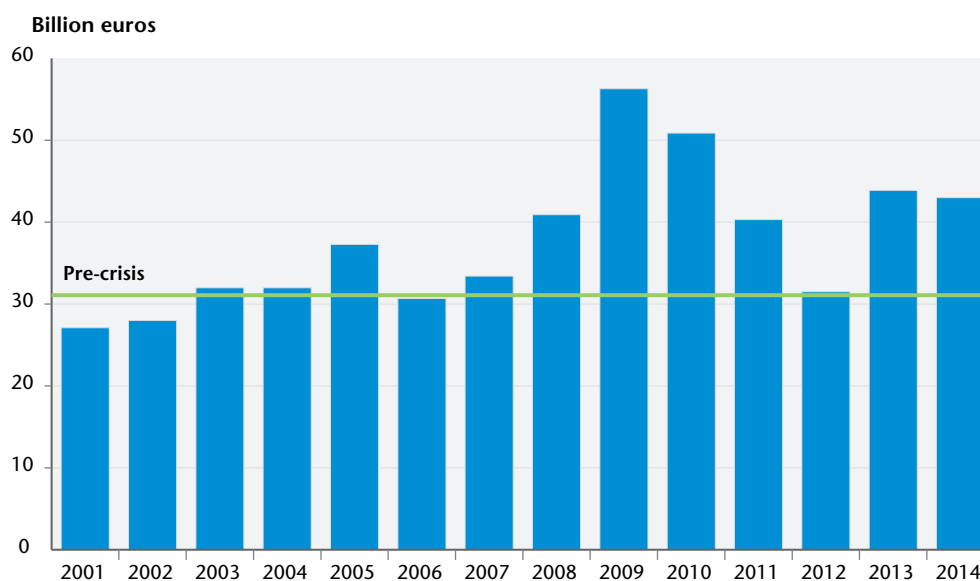**Figure 12. Share of credit lines in total EIB lending**

Figure 13. Total EIB project financing (lending – credit lines)

Source: EIB data, iAGS calculations.

Thus, total loans targeting project investments have evolved differently from overall EIB lending activity. While the spike in lending right after the crisis was mostly targeted at project financing, lending for investments had fallen back to its pre-crisis level by 2012, and was only 36% higher over 2013-2014, while total lending was 47% higher (see Figure 13). Thus, as the EIB was asked to sustain a lending volume close to 50% higher than its pre-crisis normal, it has increasingly resorted to providing credit lines instead of project finance. This trend will have to be reverted for the Juncker Plan to be successful.

The Junker Plan's anticipated leverage is not realistic

The 315 billion target of the Juncker is predicted on leveraging the 21 billion euros invested by the EU budget and the EIB at a ratio of 15 to 1. This can be decomposed in two stages: the initial capital is first leveraged three times into 63 billion euros of lending by the EIB through the EFSI,[14] which is then expected to attract five euros of private investment for each euro lent by the EFSI, adding another 5:1 leverage for an aggregate 15:1 leverage ratio over the starting funds of the EFSI.

However, if we consider historical leverage on EIB-funded projects, the hypothesis for the second round of leverage seems unjustifiably high. The total cost of a project was provided for 80% of the investments we surveyed. However, this total cost could be specified in imprecise terms, or using a range of estimates. In all cases, we have taken the highest estimate for a project's entire cost – the figures we provide for leverage should therefore be considered as upper bounds on the true leverage of projects financed by the EIB.

Focusing solely on investments in projects, we observe that mean leverage has been steadily decreasing, from 3.8 before the crisis to 3.2 over 2013-2014 (Figure 14). As the EIB has increased its lending by close to 50%, the mean leverage on its projects has come down. As it stands, the current mean leverage is a far cry from the Juncker Plan's target of 5.

Lending all of the planned 63 billion euros in 3 years within the EFSI will prove challenging: since its creation in July 2015 only 995 million euros have been lent over 9 projects in 4 months – should this pace be sustained, 9 billion euros instead of 63 would be disbursed over the Juncker Plan's projected duration. Yet, even considering that all of the planned lending can be disbursed, at a leverage of 3.2, the Plan would only result in 189 billion euros in investment – 126 billion euros short of its target.

Beyond the Junker's plan, there is an additional opportunity to run more pro-growth policies through the use of fiscal space. The euro area would indeed benefit from more expansionary fiscal policies in countries, where fiscal rules are not binding. It is therefore of crucial important to assess the amount of fiscal space among the euro area.

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14. Source: European Council, http://www.consilium.europa.eu/en/policies/investment-plan/strategic-investments-fund/

Figure 14. Mean leverage of projects financed by the EIB, by period
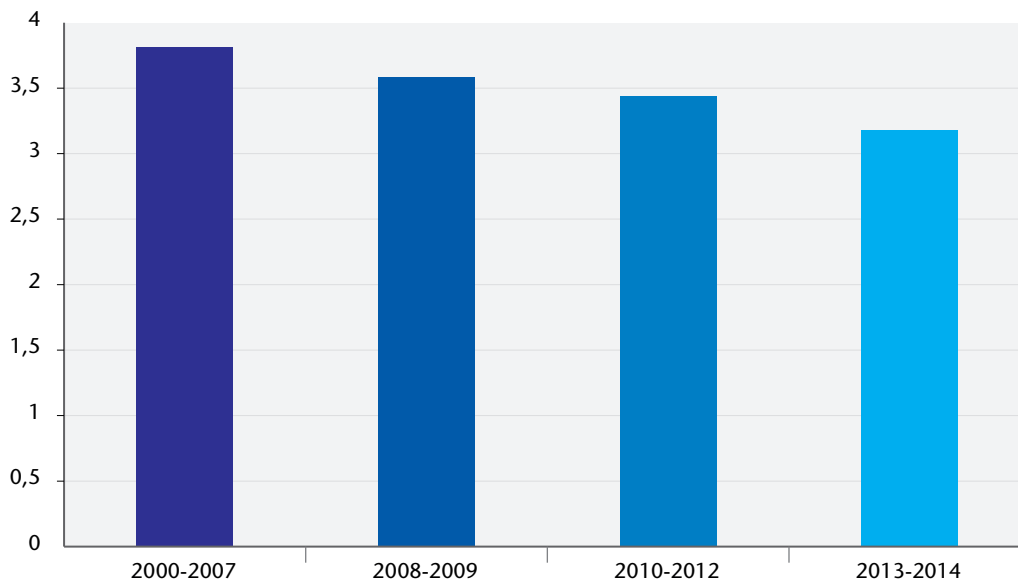
Source: EIB data, iAGS calculations

Is there scope for a more expansionary fiscal policy within the framework of the SGP?

The apparent paradox of a loosen fiscal adjustment with recessionary effects raises the issue of the fiscal space – expansionary policies should be bigger in unconstrained countries – and the flexibilities in the application of SGP – expansion should be done in countries with high multipliers.

With regard to the fiscal space, according to ECFIN, four euro area members are in the preventive arm of the SGP and their structural balance is higher than their MTO: Germany, the Netherlands, Luxembourg and Estonia. Those Member States are without doubt the countries that have more fiscal space but only Germany and the Netherlands can impact significantly the GDP of the euro area. The Dutch Draft Budgetary Plan (DBP) implement a fiscal impulse in 2015 and 2016 (+0.3 point of GDP in 2015 and +0.2 point of GDP in 2016) that is close, according to ECFIN, to the available fiscal space that complies with SGP commitments. In 2015 and 2016 Germany is also implementing an expansionary policy (+0.4 point of GDP by year) but to a lower extent than what can be done within the rules of the SGP. According to the Analysis of the 2016 Draft Budgetary Plan of Germany published by ECFIN, a fiscal impulse of 1.7 in 2015 and of 1.6 point of GDP would still ensure compliance with the SGP requirements. However, if this level of impulse would have a bigger effect on GDP, this use of the available fiscal space may not be optimal from the point of view of the aggregate euro area GDP, as the German output gap is almost closed and its policy multipliers are low.

Following the logic of the SGP, the other countries that may have fiscal space are those in the preventive arm, with a structural balance lower than the MTO and without problems to comply with the debt criterion (among this group Austria is the bigger countries). Austria will deteriorate its structural balance by 0.3 point in 2016 and according to ECFIN the Austrian DBP poses a risk of non-

compliance with the requirements under the SGP, so the fiscal space available for the Austrian government is low or non existent.

Then, Italy and Belgium are also in the preventive arm, their structural balance is also lower than the MTO but they are expected to make additional adjustment to comply with the debt criteria. In a deflationary context it is very difficult to comply with the debt criteria and the Commission considers that those countries are complying with this criteria. In particular, Italy has benefited of the new guidelines issued in January 2015 but it remains uncertain that it will continue to benefit in 2016. It will be very important to ensure that the flexibilities will be maintained in 2016 in order to consolidate the recovery after several years of economic slack. The ECFIN analysis of the Italian DBP suggests that there is a significant risk of non-compliance with the SGP requirements, but the Commission will analyse if Italy can apply to the investment clause (with signals for a positive answer) and that the unexpected costs linked to the refugees flows will be taken into account on an *ex post* assessment. The expected fiscal impulse of 0.7 point of GDP would let to consolidate the Italian recovery. Finally, we expect that the Belgian fiscal adjustment will persist in 2016, in a level slightly inferior to the benchmark level of 0.5 point of GDP.

Finally, countries that are under the excessive deficit procedures (EDP) are committed to respect a consolidation path towards a target deficit of 3% of GDP in a certain year. France, Spain, Portugal, Ireland are the main countries subject to EDP. Those countries have clear targets in terms of nominal balance but the Council also issue recommendations in terms of structural adjustment but they are less mandatory in case of meeting the headline targets. According to the last ECFIN forecasts, France and Slovenia will meet exactly their headline targets but will underachieve in terms of the structural adjustment, suggesting that those countries cannot use more fiscal space. Otherwise, there are big risks of underachievement of both nominal and structural targets in Spain and in Portugal. The debate is particularly important in Spain as the government and the Commission discord on their assessment of the cyclical situation and of the Spanish potential growth. The Spanish government assures that the fast growth would permit to meet the nominal targets, while the Commission suggests the inverse. The government forecast assures that the headline target would be exactly achieved; suggesting that the fiscal space is non existent. ECFIN invited Spain to submit an update of its DBP as soon as possible.

After recalling the situation of each Member State vis-à-vis the SGP, that very few countries have fiscal space with respect to the rules of budgetary governance. Only Germany has some fiscal space without doubt but the efficiency of a timid German based stimulus would be limited, at least from a GDP point of view. This raises the question of the creation of common fiscal capacity that would let to implement counter-cyclical budgetary policy, especially when there is no scope for monetary policy like a situation of liquidity trap and deflation.

4. Long-term lower inflation?

Several factors suggest that the risk of deflation, very ominous in 2014, might have lessened recently. Growth is consolidating in the United States and the United Kingdom, and the euro area appears to be entering a phase of recovery, although this is still fragile. In addition, monetary policy remains expansionary overall. Yet, despite this context, the inflation rate is holding at close to zero in Europe and the US (Figure 15), a level still below central bank targets. In addition, various measures of inflation expectations have tended downwards lately. However, the current price weakness is largely due to the continuing decline in imported inflation, in line with the steep fall in energy and commodities prices. But even when these factors are excluded the risk of deflation remains high. In the United Kingdom, core inflation came to 1.0% and has been on a downward trend since the end of 2012, a development that is in contradiction with the fall in unemployment. In the euro area as a whole, core inflation seemed to be moving upwards after reaching its lowest point in January 2015 (0.6%), which was considered a sign of the success of the ECB's use of quantitative easing. However, core inflation reached a peak of 1.0% in July and has even fallen by 0.1 point since then, suggesting that the risk of deflation cannot be completely excluded.

**Figure 15. Trends in inflation**
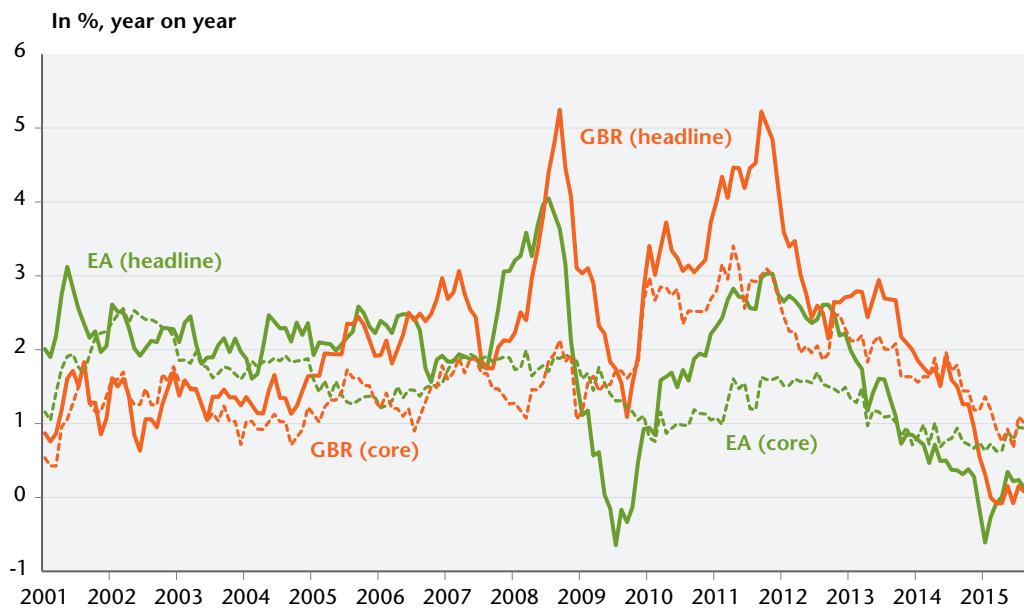
Source: Eurostat.

Moreover, this general picture of core inflation in the euro area masks significant differences between countries (Figure 16). On one side, core inflation is close to 2% in some countries, such as Austria, Ireland, Luxembourg and some Baltic countries. On the other, Cyprus and Greece are already in a deflationary scenario. The case of Greece is particularly striking: in August, core inflation adjusted for the effects of indirect taxation came to -1.7%; the relative resilience of a 0.3% rate of core inflation is largely due to the recent increase in VAT. The largest EU economies lie in an intermediate area, with marked differences. The core inflation

rate in Germany, the Netherlands and Italy is slightly higher than 1%, while in France, Spain and Portugal, it lies between 0.5% and 0.6%. These differences reflect the ongoing process of rebalancing taking place within the euro area to restore the levels of relative competitiveness between countries. The weakness of Germany's core inflation does, however, raise questions about the duration of the adjustment required to absorb the imbalances accumulated since the creation of the single currency. This could plunge some countries, notably in the south of the euro area, into a state of long-term low inflation – or even deflation.

Figure 16. Core inflation in the euro area countries (August 2015)
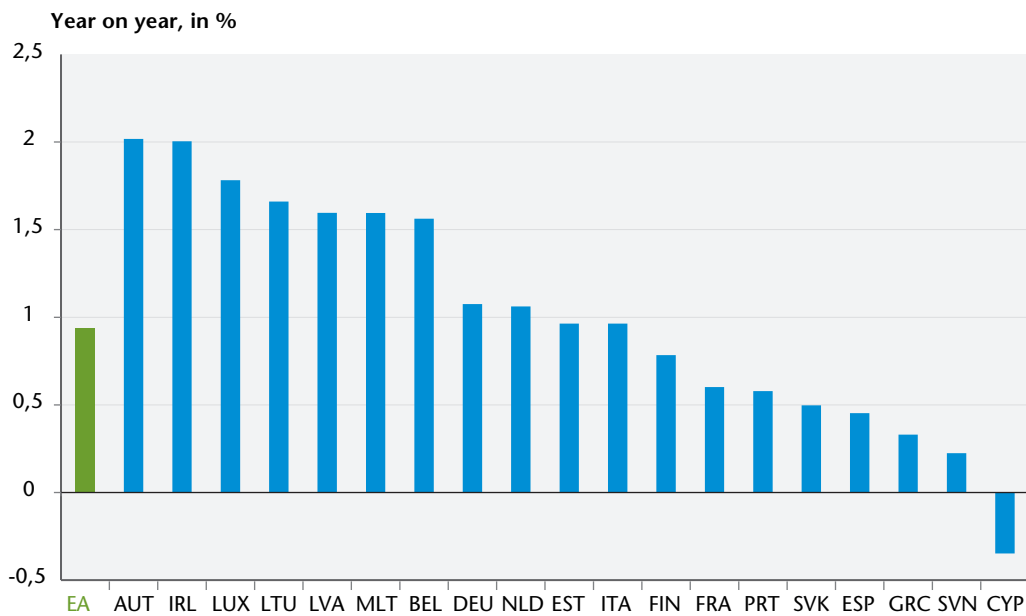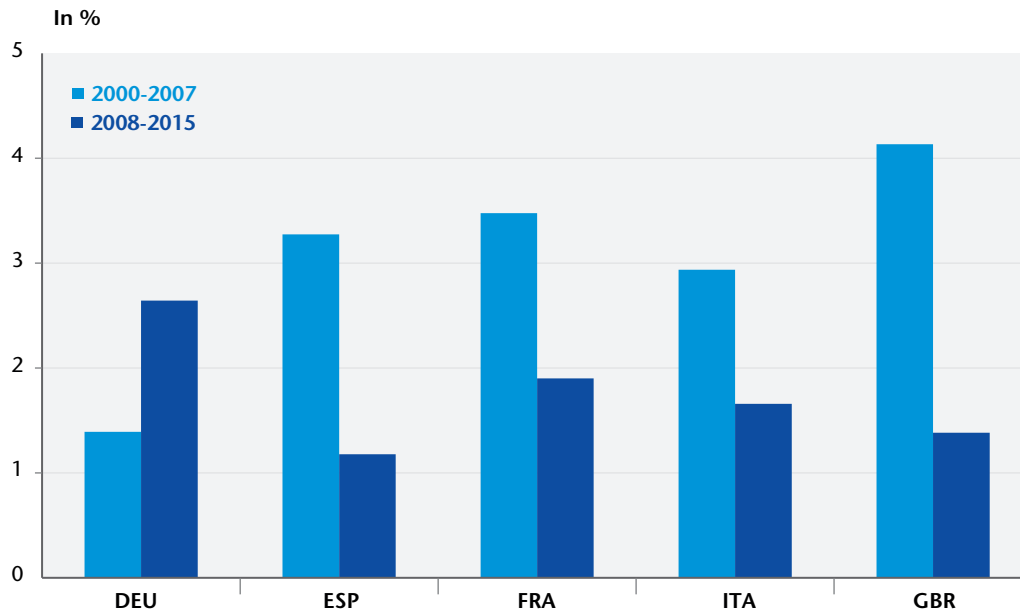

Source: Eurostat.

Slowing wage increases are holding down inflation

Among the factors that determine overall price dynamics, changes in nominal wages obviously play a prominent role. From an economic and political point of view, wages should increase in line with productivity and the ECB's inflation target to keep functional distribution unchanged and avoid wage-driven price deviations. Figure 17 traces trends in nominal hourly wages in the commercial sector in the major European industrialized countries (Germany, France, Italy, Spain, United Kingdom) since 2000. Before the crises, unit labour costs (nominal wages adjusted from productivity) undershoot the ECB's target in Germany while it had been overshoot in Spain, France and Italy. Yet, at the euro area level the growth of ULC was in line with the 2% target. With increasing asymmetric pressure on wages (Euro-Plus Pact, Macroeconomic Imbalance Procedure, …) in countries with overshooting development and deflation tendencies later on, the gap of the actual development widened in relation to the benchmark for Spain and Italy. As a consequence, internal demand will be weakened further.

Overall, there is a downward trend in wage inflation, with increases generally lying between 3% and 4% per year before the 2007-2008 financial crisis, in

contrast to the 1-2% annual increases observed after the crisis. Although this is certainly not the sole explanation of the phenomenon of worldwide disinflation, the significant and sustained rise in unemployment in most countries has certainly played a major role; in a period of mass unemployment, workers have less bargaining power, which is invariably reflected in their salary expectations.

Figure 17. Changes in wages in the main industrialized countries (average annual growth rate)

Source: Eurostat.

Germany is of course an exception to this overall picture of crisis-induced wage disinflation. From 2002 to 2007, wage increases there were systematically lower than those in the other countries, with wages even falling in 2006. In contrast, post-crisis wages have been more dynamic than in other countries, with a peak of 4% in 2012. This observation is related to unemployment trends in Germany, which have differed greatly from other countries. After rising between 2000 and 2005, Germany's unemployment rate has fallen nearly continuously. Spain's trajectory has been almost exactly the opposite. Between 2004 and 2008, Spanish wages accelerated significantly, reaching an annual growth rate of 7% in 2008; the trend reversed radically thereafter, with pay increases of less than 1% from 2010 to 2014. As for wage inflation in France and Italy, these two countries have followed generally similar paths, with relatively non-volatile rates of wage inflation also on a downward trend. In both countries the wage formation process thus seems less sensitive to the economic cycle.

Nominal re-adjustment in the euro area and the risk of deflation: Germany as referee

In the euro area, these trends in nominal wages form part of a broader context involving the rebalancing of aggregate nominal disequilibria that have

built up since the introduction of the single currency. The pre-crisis divergence can be explained in part by German wage restraint (see Lemoigne and Ragot, 2015), especially compared to Spain but also vis-à-vis Italy and France. This was amplified by changes in productivity. Thus, not only were wages more moderate in Germany, but productivity also rose more, while it stagnated in Italy and was low in Spain. As explained above, the heterogeneous trends in unemployment have helped to moderate wage increases in Spain and to a lesser extent in France and Italy, while pushing them up in Germany. Thus, the years 2010-2014 saw the beginning of a nominal rebalancing, notably between Spain and Germany, without however totally resolving the pre-crisis divergence. In the coming years, we expect that the impact of the crisis will continue to be felt on labour markets, particularly in countries that accumulated current account deficits within the euro area before the crisis (Italy, Spain and in France). In these countries, where unemployment remains at historically high levels, wages and prices should remain contained. This will result in a rebalancing process that will be particularly expensive and dangerous: expensive from a social perspective, as the slow fall in unemployment will lead to greater inequality and poverty. Dangerous because the euro area will remain characterized by long-term heterogeneity and national interests that diverge in practice, which represents a political threat to the European project.

LABOUR MARKET, INEQUALITY, THE SCARS OF THE CRISIS

Despite some improvements, the European Union still feels the scars of the crisis in terms of unemployment and inequality. As this chapter will show, unemployment remains high, especially youth and long-term unemployment which raises the problem of human capital depreciation and unemployment hysteresis. The chapter also shows a very heterogeneous Europe in terms of both unemployment and inequality. This should be kept in mind when we treat the EU or the euro area as a whole. Both dimensions (EU as a whole and the dispersion between countries) are therefore taken into account in this chapter.

Whereas inequality is first and foremost an issue of social justice, it is more and more raised in a macroeconomic perspective. The OECD and the IMF now count inequality as a potential source for low growth. There is a vicious circle where low growth spur inequality through unemployment and inequality spur low growth through inadequate investment in human capital. Many European countries need to get out of this vicious circle. This chapter therefore also discusses the ways to tackle inequality in the 21st century.

1. European labour market

When looking at the European labour market we are seeing improvements, but the improvements are slow, and it is clear that the crisis is far from over. From 2008 to 2013, unemployment in the EU increased with around 10 million people. Even with a fall of 2 million people from 2013 to 2014, 8 million more are unemployed today compared to prior to the crisis. In percent of the labour force, unemployment has fallen from 2013 to 2014 by 0.7 percentage points to 10.2 in 2014, compared to an unemployment rate of 7 percent in 2008. In the euro area the fall has been even smaller, leaving the unemployment rate close to 12 percent, reminding us that there is still a long way to go before the European labour market gets close to the levels we had before the crisis, *cf.* Figure 1.

Labor market halo (people willing to work but not actively searching and thus not counted as unemployed in the ILO sense) and labor underutilization (people working part time and willing to work more) are increasing in the euro area (Figure 2). Overall, labor underutilization (summing up halo and underemployment) is increasing despite what looks like an improvement of the labor market. This process suggests that dualization of labor market, where the frontier between in and out is not the working contract but the qualification or age, is increasing everywhere in the euro area.

Even more concerning, the long term unemployment rate in EU is still on its highest level since the crisis broke out, and long term unemployment has even increased in the euro area from 2013-2014. The consequence is that today half of

the unemployed in Europe are long-term unemployed. The same pattern is seen when it comes to very-long-term unemployed (above 24 month). 3.8 pct. in the euro area and 3 pct. of the active population in the EU are very-long-term unemployed.

Figure 1. Unemployment rate in the EU and the euro area
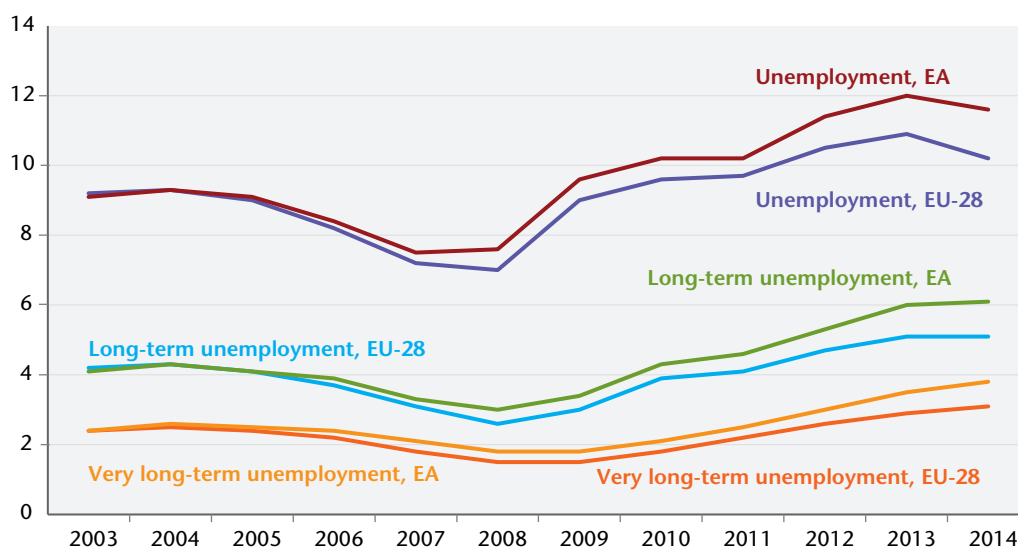
Source: Eurostat.

Figure 2. Halo of unemployment, euro area
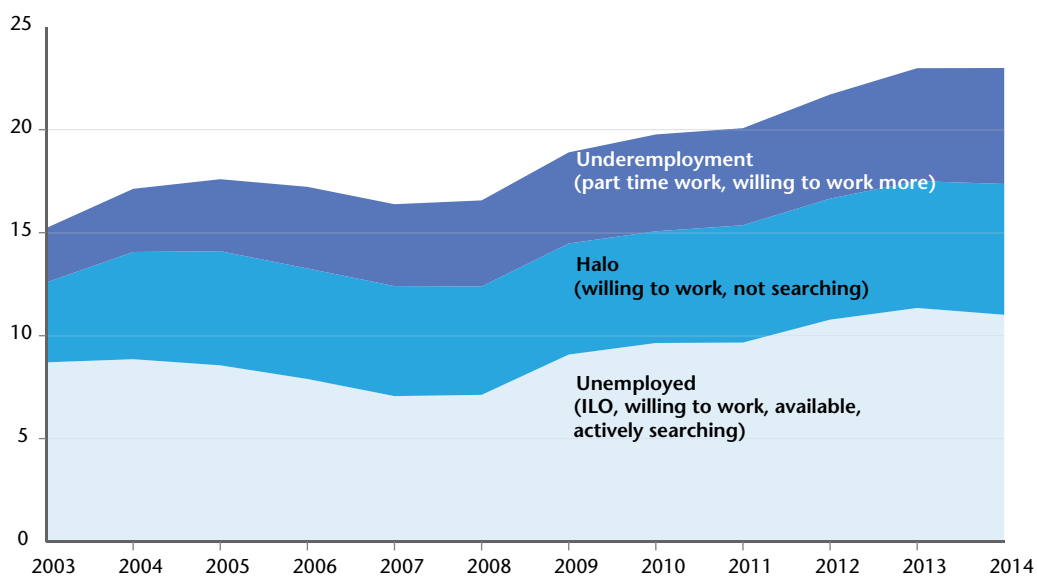
Source: Eurostat.

The crisis has affected the EU member countries differently, but almost all countries have experienced a rise in the long term unemployment rate. Figure 3 shows the rate prior to the crisis and in 2014. Austria, Finland Luxembourg and Malta are all very close to prior crisis levels and in Germany the long term unem-

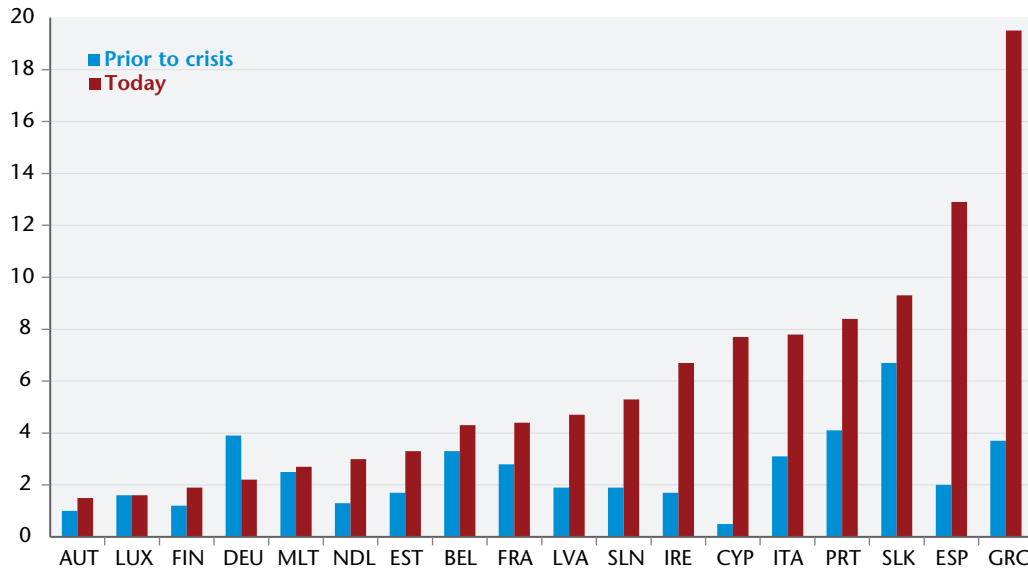ployment rate today is lower than before the crisis broke out. In the other end of the scale, Cyprus has had an increase of around 7 percentage point and Spain and Greece have experienced increases in long term unemployment of almost 11 and 16 percentage point.

Figure 3. Long term unemployment rates

Note: Prior to crisis is 2008 and today is 2014
Source: Eurostat

Unemployment for young people finally seems to have peaked and now youth unemployment is starting to decline but remain at a very high level. From 2013 to 2014, there was a decrease of 500.000 people in EU-28. In 2014, 5.1 million people aged 15-24 were unemployed in EU-28, while the number was 3.4 million in the euro area. The youth unemployment ratio, i.e. the number of unemployed young people as a share of the population, for the 15-24 year olds can be seen below in Figure 4. The figure shows that the ratio has been increasing since the crisis hit in 2008 for both EU-28 and EA-18. However, this changed during 2014. From a historical peak of almost 10 percent in 2013, there has been a decrease in both ratios. They are still far above the level prior to the crisis, and the ratio of young long-term unemployed is increasing in the euro area. In 2014 more than a third of the young unemployed in Europe were long term unemployed (more than 12 month).

For EU member states the youth unemployment ratios vary a lot, as some countries have been hit harder than others (Figure 5). The ratios are very high in countries such as Spain, Greece and Cyprus with current ratios from almost 15 to 19 percent. Despite this fact, the good news is that they have fallen from 2013 to 2014. For Spain and Greece, the decrease is 2 percentage points, while Cyprus has experienced a decrease of 0.5 percentage point. Again, Germany is the only country that has experienced a decrease in the youth unemployment ratio compared to before the crisis. Countries such as Estonia, Luxembourg, Austria and Malta are almost on the same level as they were prior to the crisis.

Figure 4. Youth unemployment ratio in the EU and the euro area
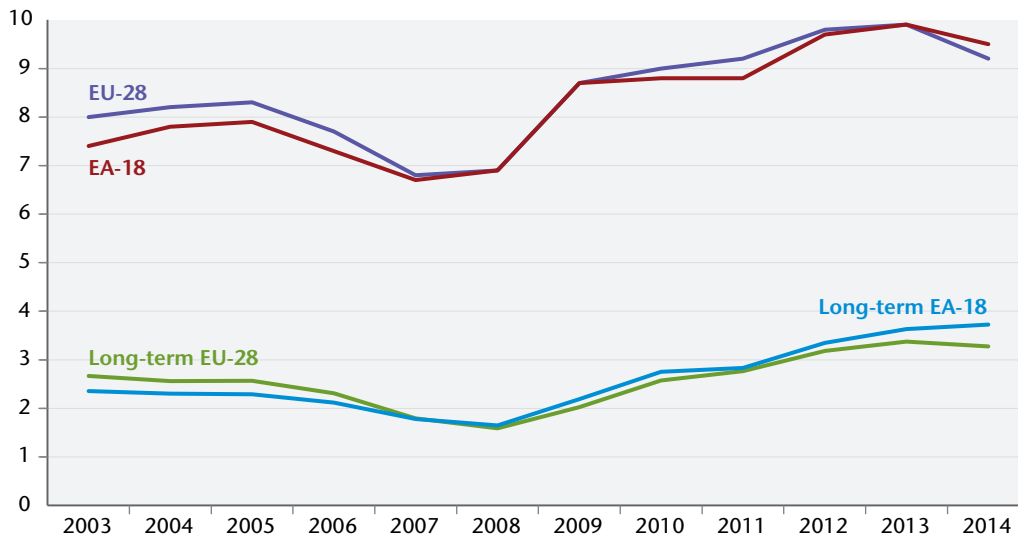
Source: Eurostat.

Figure 5. Youth unemployment ratios
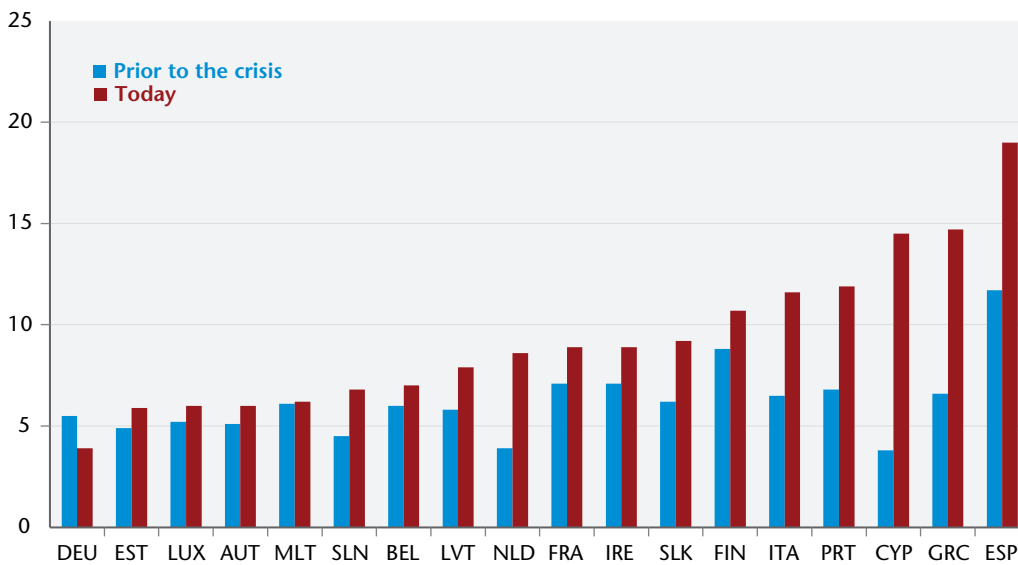
Note: Prior to crisis is 2008 and today is 2014.
Source: Eurostat.

Education and training are aspects worth taking into account when considering young people's unemployment as these activities play an important role for the younger people. It is of particular significance for people aged 18-24 who are unemployed. NEET-rates measure the share of young people that are Not in Employment nor in Education or Training (hence, NEET).

Figure 6 shows the NEET-rates for EU countries and for EA-17 before the crisis and in 2014. The picture is similar to figure 5 in the sense that countries with high youth unemployment ratios also have high NEET-rate and the other way around. Both Germany, Sweden and Luxembourg are currently at a lower level than in

2008, but all other countries have experienced increases. Again, Greece is at a very high level along with Italy, Bulgaria and Spain.

Figure 6. NEET-rates (young people not employed nor in education or training)
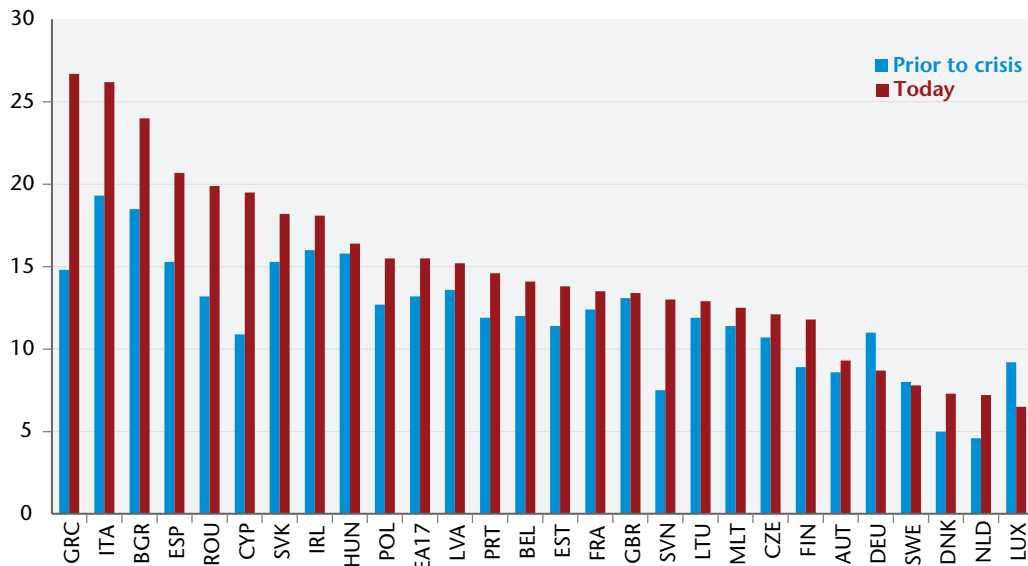
Note: prior to the crisis is 2008 and today is 2014.
Source: Eurostat.

2. An unequal Europe

Despite the fact that the European economy is showing mild signs of improvement, the crisis is far from over and all over Europe people are still suffering under the social consequences of the crisis. Many Europeans have experienced decreases in living standards during the crisis, resulting in increases in income inequality and poverty leading to material deprivation, but also inequalities between regions, age groups and household types. These changes can be measured in many ways and below we look into some of them.

Income inequality in the EU

One way to measure income inequality is through decile income shares. Decile income shares allow us to decompose changes in inequality into what is driven by the bottom and what is driven by the top of the income ladder. Figure 7 shows the evolution of inequality in the top of the income scale (S10/S6) as well as the evolution in the bottom (S6/S1). S10/S6 is the ratio of the share of income earned by the richest 10 percent (S10) to the middle incomes, i.e. the share earned by the 6th decile of equivalised income (S6). An increase in S6/S1 indicates an increase in inequality in the bottom part of the income ladder since the income earned by the poorest has decreased relatively to the income received by the 6th decile. Figure 7 shows that the southern European countries that were hit hard by the crisis, have experienced the largest rises in inequality mainly driven by a rise in the inequality in the bottom part of the distribution (S6/S1).

Figure 7. Evolution between 2008 and 2014 of share of national equivalised income
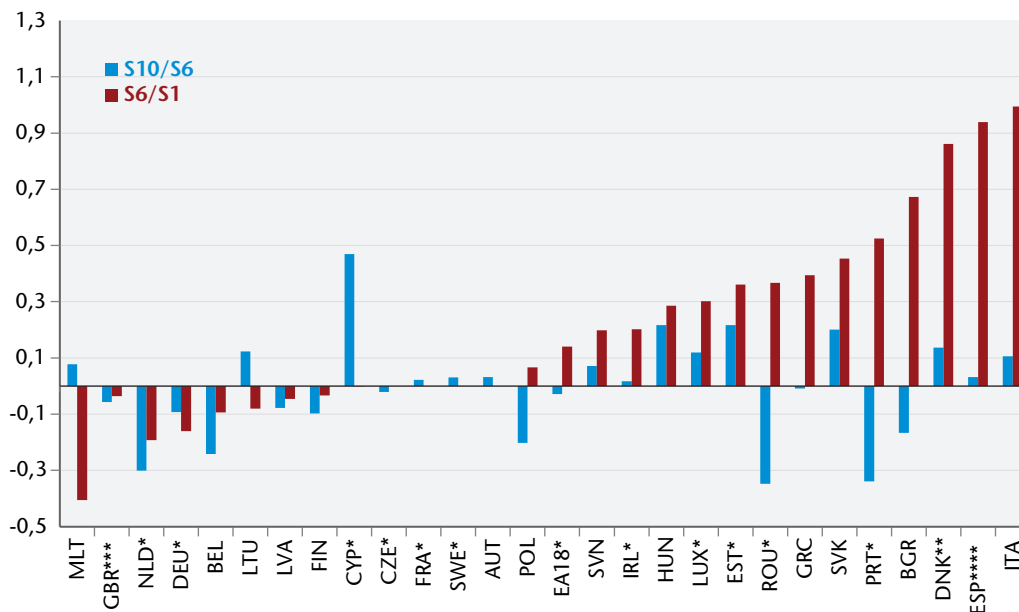
Note: (*)Latest data from 2013. (**) Data from 2008-2013 due to break in time series. (***) Data from 2008-2011 due to break in time series. (****) Data from 2009-2014 due to break in time series.
Source: Eurostat.

One thing is to look at income inequalities between European countries, another thing is to look at Europe as a whole. Figure 8 shows the evolution of European and euro area global inequality (global Gini and Global Theil), which compares all households regardless of residence. In the European Union as a

Figure 8. Evolution of income inequality in the EU, the euro area and the US
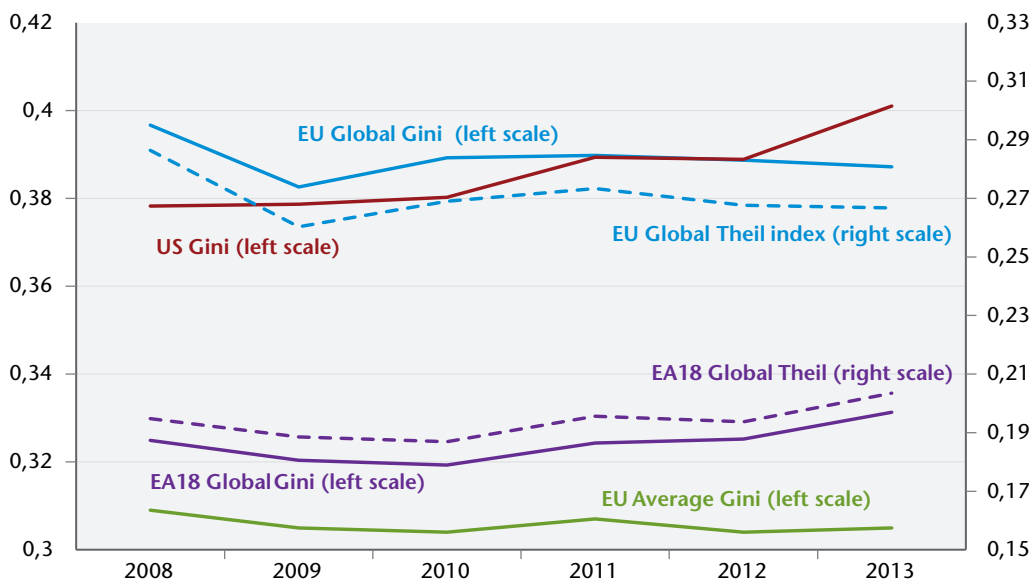
Sources: EU-SILC, OECD, iAGS calculations.

whole, inequality (global EU Gini) was rapidly falling between 2008 and 2009 and then stagnated. In 2013, global inequality is only slightly lower in the European Union than in the United States. Global inequality is lower in the euro area but it has been rising fast since 2010.

The average Gini in the EU27, as calculated by Eurostat is also shown in the figure. It is much lower than the global European Gini because it does not take into account inequalities between European countries (it averages inequality within each individual country).

Regional convergence turning into regional divergence

Another way to analyse income inequality is to look at whether the GDP levels in European regions are converging or diverging. Regional convergence is the traditional way to assess inequality *across* the European Union. The European Regional Development Fund (ERDF), established in 1975 is the first, and still main policy instrument aimed at reducing inequality across Europe. Prior to the crisis, a regional convergence could be observed. Figure 9 shows that between 2000 and 2008, the Nuts 2 regions which enjoyed the greatest average annual growth are also the ones with the lowest initial level of GDP, which implies convergence between European regions. It can be argued that this convergence was obtained at the cost of an unsustainable dynamic (like in Greece). This point is rather difficult to prove or to dismiss, and can be made as a general caveat to all kind of convergence processes. Nevertheless, by itself convergence is not unexpected from a theoretical point of view, and it seems that the burden of the proof should be on the doubters.
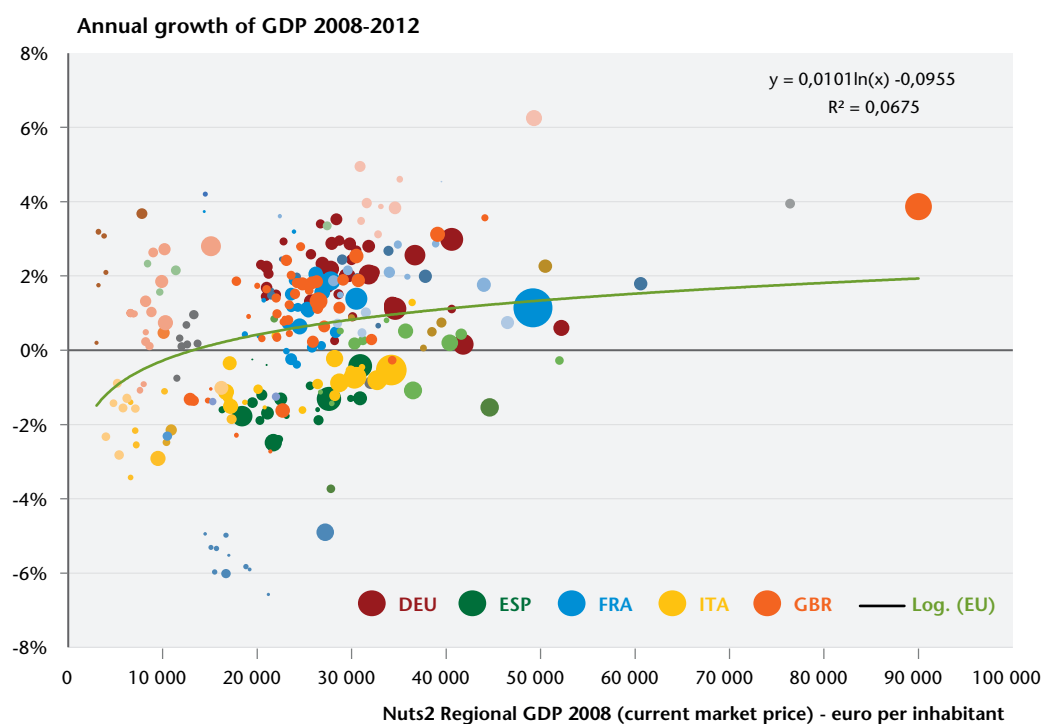
Figure 9. Regional convergence in the EU
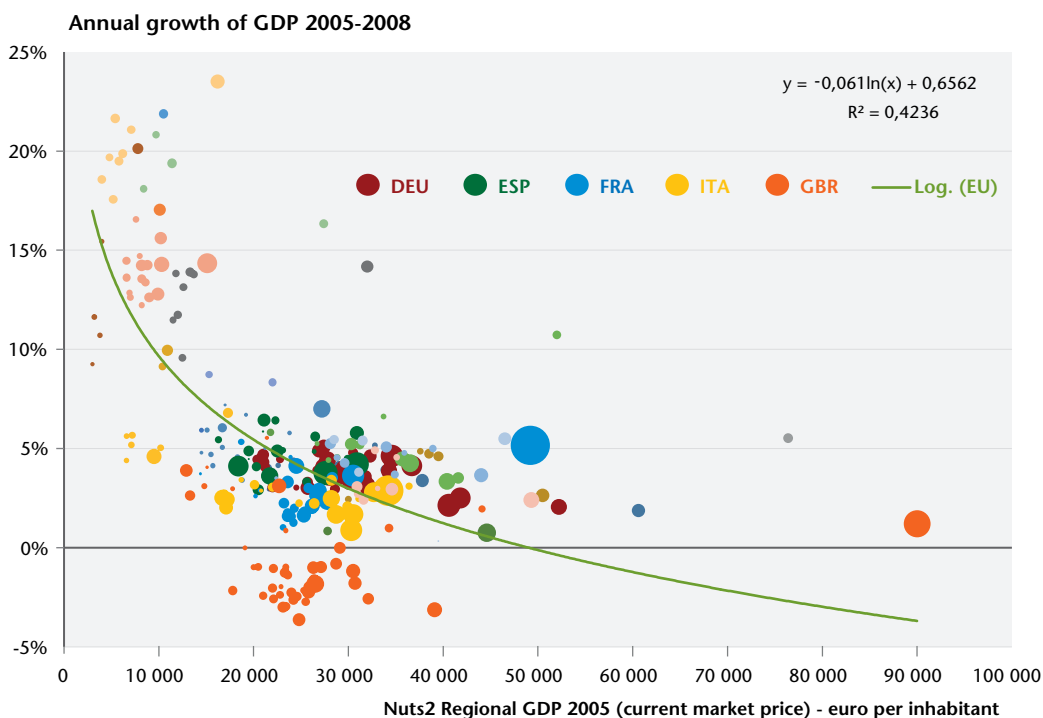
Sources: Eurostat, iAGS calculations.

The great recession has not been felt equally in Europe. Obviously, some regions have been hurt more than others. Figure 10 shows a different picture from figure 9, consistent with the end of regional convergence since the beginning of the crisis (2008) up to 2012. It can be said that the crisis has stopped regional convergence in the EU.

Figure 10. The end of regional convergence in the EU

Annual growth of GDP 2008-2012

$y = 0,0101\ln(x) - 0,0955$
$R^2 = 0,0675$

DEU ESP FRA ITA GBR —— Log. (EU)

Nuts2 Regional GDP 2008 (current market price) - euro per inhabitant

Sources: Eurostat, iAGS calculations.

Increasing poverty since the crisis

When it comes to poverty and analyzing changes over time, the preferred measure is the anchored risk-of-poverty (Figure 11). In this case the median income is anchored in 2008. An increase over time in the anchored poverty rate indicates that the living standards of low-income households have become worse compared to 2008. On the other hand, a decrease indicates better living standards compared to the base year. The risk of poverty has increased in many European countries. Greece stands out with an increase of over 25 percentage points. This could have lasting scarifying effects. In the other end of the scale, Poland and Bulgaria have experienced decreases of over 5 percentage points during the period.

Figure 12 shows that the change in the anchored poverty rate is highly correlated with the change in the output gap since the crisis broke out, underlining that the countries that have been hit hardest by the crisis are also the countries that have experienced the highest increase in poverty (relative to 2008 income).

Figure 11. Change in the anchored risk-of-poverty rate from 2008-2014
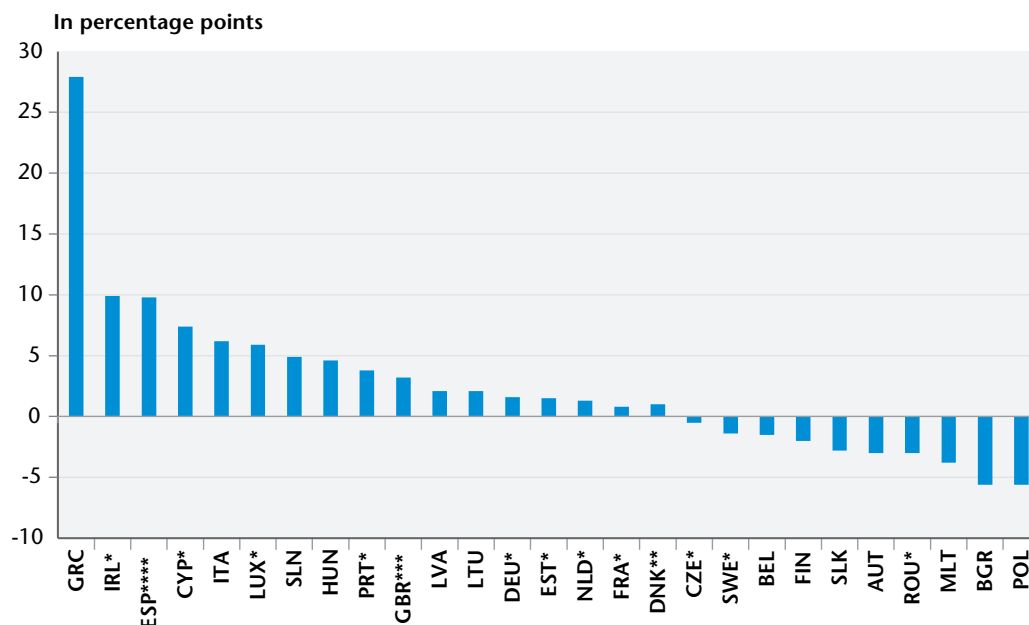
In percentage points

Note: (*) Latest data from 2013. (**) Data from 2008-2013 due to break in time series. (***) Data from 2008-2011 due to break in time series. (****) From 2009-2014 due to break in time series.
Source: Eurostat.

Figure 12. Correlation between change in anchored poverty and change in output gap 2008-2014
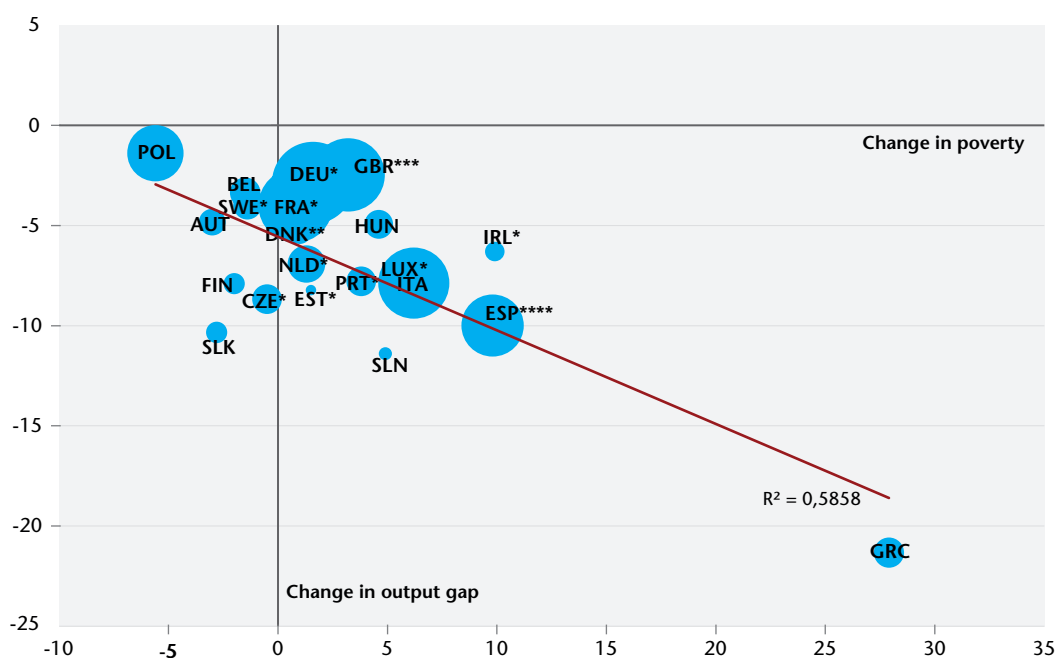
Note: (*)Latest data from 2013. (**) Data from 2008-2013 due to break in time series. (***) Data from 2008-2011 due to break in time series. (****) From 2009-2014 due to break in time series.
Source: Eurostat and OECD.

Severe material deprivation

The severe material deprivation rate is another indicator of poverty. Instead of looking at income, the severe material deprivation rate shows how individuals experience inadequate access to basic amenities. The rate is defined as the declared inability to pay for a certain number of necessary items such as rent and utility bills.

Figure 13 shows the change in the severe material deprivation rate from 2008-2014 for the entire population and for children (aged 0-18). In both cases, Greece, Cyprus, Hungary and Malta have experienced the highest increases in severe material deprivation during the period with increases of around 6 to 10 percent for the total and up to over 13 percent for children. On the other hand, especially, Poland and Romania have experienced decreases. For children, the ranking among the countries mirrors the ranking for the overall severe material deprivation rate to a large extent. For the countries that experience the biggest increase in severe material deprivation, there is a tendency that the rate among the children is even higher. This indicates that children are hit harder by material deprivation than other age groups. Growing deprivation among children is very concerning since lack of opportunities during childhood is likely to have long-term consequences for the concerned individuals as well as for society as a whole.

Figure 13. Change in severe material deprivation rate 2008-2014

Note: (*) Latest data from 2013. (**) Data from 2008-2013 due to break in time series. (***) Data from 2008-2011 due to break in time se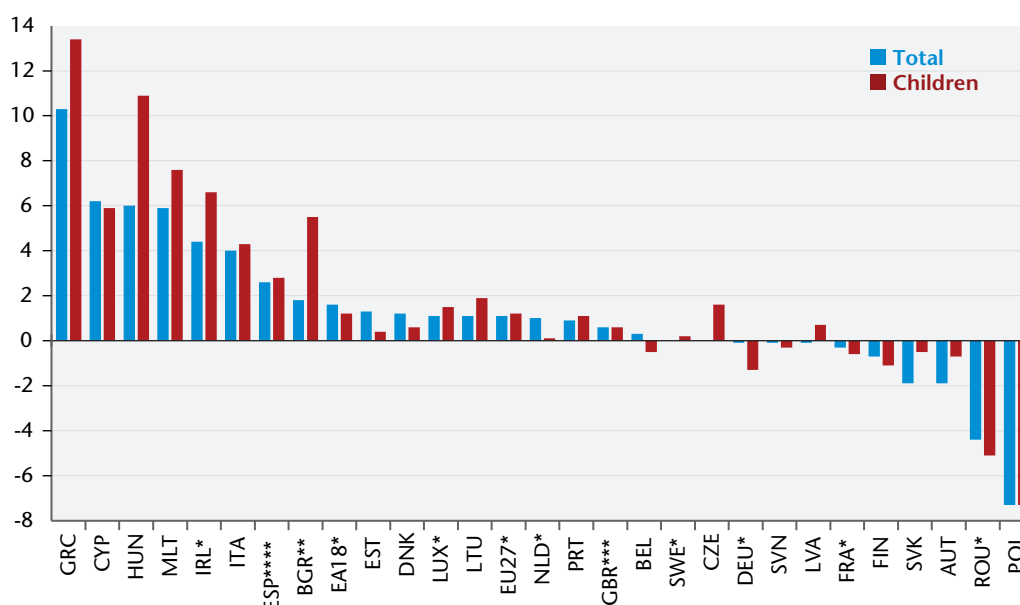ries. (****) From 2009-2014 due to break in time series.The severe material deprivation rate is an EU-SILC indicator defined as the inability to do at least four of the following: to pay rent, mortgage or utility bills, to keep their home adequately warm, to face unexpected expenses, to eat meat or proteins on a regular basis, to go on holiday, to have a television set, a washing machine, a car and a telephone.
The indicator distinguishes between individuals who cannot afford a certain good or service, and those who do not have this good or service for another reason, e.g. because they do not want or do not need it.
Source: Eurostat.

Figure 14 shows severe material deprivation for single parents, mainly single mothers, in comparison with other households with and without children. It is seen how severe material deprivation is much more common among single parents compared to both households with and without children. One out of 6 children in the euro area growing up with a single parent lives in a household with severe material deprivation. The share of single parents experiencing severe material deprivation is twice as large as in households with dependent children in general. The figure also confirms the result from the figure above – That a larger share of households with dependent children (compared to household without dependent children) live with severe material deprivation, and the share has been increasing since the crisis broke out.

Figure 14. Severe material deprivation in different household types, the euro area
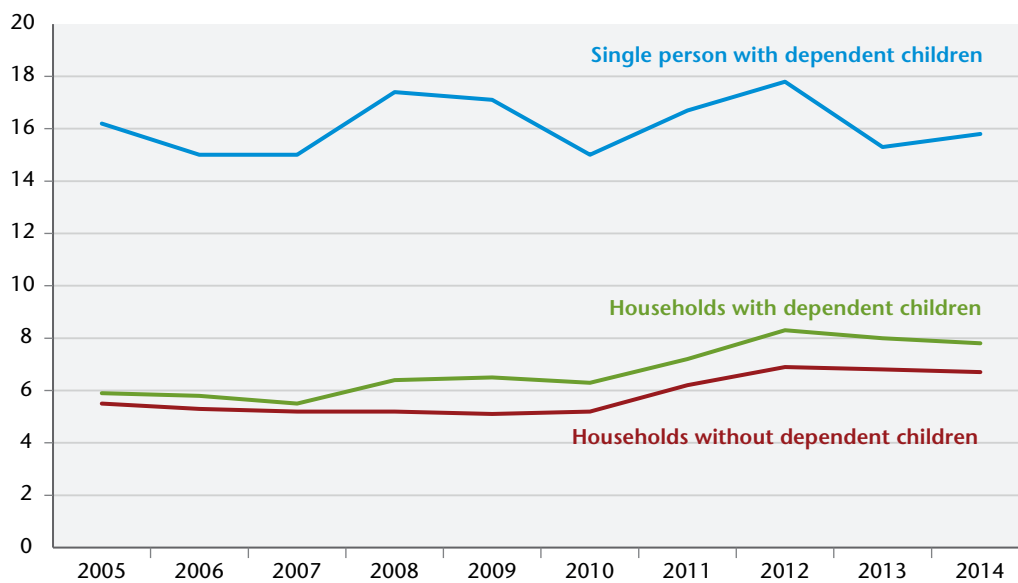
Source: Eurostat.

Box. Recession and austerity in Europe: A gender perspective of labour markets trends in Europe

The current economic crisis is identified as being different to others over the last three decades, in several ways: the severity of the crisis, the interventions of national governments in implementing stimulus packages, the subsequent European sovereign debt crisis and the ensuring fiscal consolidation to contain public deficits. In the literature on the gendered impact of economic recessions, the current crisis is also viewed as being specific because women seem to have been particularly protected from jobs destructions. As suggested by Smith and Villa (2013), the analysis of the impact of recession on the female labour force must be related to long term trends, such as gender regimes, family models and institutional environments, all of which have changed over time. Since, the European Employment strategy launched in 1997, female labour force participation has risen, so that women are no longer a secondary earner

in families. Spain has experienced a particularly dramatic increase in female participation in the labour market, over the last decade. This trend has destabilized the male breadwinner model, but Spanish women are still more affected than men by short term contracts, unemployment, and part-time jobs (Gonzales et al., 2014). The increase in the female participation rate has been coupled by an increase in gender sectoral segregation.

Female employment was less affected during the recession phase than male employment and the Austerity stage of the crisis is expected to be particularly harsh for female employment. This double phenomenon is called in the economic literature "He-Cession and She-Austerity" (see Rubery and Karamessini, 2014; Eydoux, Math and Périvier, 2014). It is mainly explained by the high level of gender sectoral segregation of European labour markets. The recession has a clear sectoral dimension and the public policies implemented to stimulate economic growth or those targeted toward fiscal consolidation was also sectorally-oriented. Leschke and Jepsen (2011) show that despite the fact that men were in general more affected by the shocks, women have been less sheltered than in the past crises. Their analysis of the stimulus packages and of the responses to the crisis indicates that in the UK and in Germany, women are less likely to have access to unemployment insurance. They conclude that in long term, the austerity measures have usually targeted the social services sector and education, as well as cut-backs in social security system. All of these are likely to have negative consequences on the economic position of women relative to men.

This box summarizes the main results of a working paper OFCE to be published (Périvier, 2015). It aims to analyse more precisely the forces that drive the gendered impact of the recession and of the austerity policies in the labour market in different European countries, in terms of participation and employment trends for women and men. Eight European countries have been chosen: Denmark, France, Germany, Greece, Italy, Spain, Sweden, and the UK. During the recession, a discouraged-worker effect is observed for men in some southern countries (Spain, Greece and Italy) as the male labour force has experienced a larger destruction of jobs than the female one. Besides, labour supply might be subjected to the same intra-household decisions, leading for instance an inactive wife to participate in the labour market (or to increase her working time), in response to the loss of her husband's job (the added-worker effect). This phenomena is observed in Spain, Greece and Italy (see (Karamessini and Koutentakis, 2014; Gálvez-Muñoz, RodríguezModroño, Addabbo, 2013).

Female employment and male employment are differently allocated across sectors and occupations. These characteristics explain at least partially the gendered impact of the different stages of the crisis. The variation of employment by gender and industry does not allow identification of the "pure" effect of job segregation in explaining the gendered impact of the crisis. During 2008 and 2014, the share of women in each sector might have changed, this might have hidden specific gendered effects of employment changes during the crisis. It might be due to the sex occupational segregation: for instance, in sectors where women are under-represented, job destructions might have been concentrated on female occupations, and the share of women in these sectors might have fallen as a consequence.

A shift and share analysis provides a measure of the role played by the sex segregation of the labour market in the evolution of women's employment

during the period under review. Spain is a typical case of the He-Cession and She-Austerity scenario. The sex sectoral segregation explains the gendered effect of the business cycle on employment: the share of women in each sector had remained stable since 2008. Spanish women have been less affected by the crisis in terms of employment trends than men, and this is mainly explained by the fact they are over-represented in sectors that were less hit by the recession. But women also experienced decreases in employment during the recession stage, and during the austerity stage of the crisis, though the speed of the decrease has been lower than for men. The increase in female employment during the crisis has gone hand-in-hand with an increase in precariousness, low income and bad jobs for women, in a context of low income and economic pressure.

The Greek situation is characterized by a "Race to the bottom" scenario: employment has decreased for both men and women, with similar trend. For Italy, Germany, France and Sweden, the He-Cession and She-Austerity scenario does not clearly apply regarding to the decomposition of employment. Interestingly, in the UK and Denmark, from Q1 2009 to Q3 2011, women should have benefited more of the employment evolution than they actually did. In Denmark, female employment should have decreased more slowly than it did. In the UK, women should have experienced a positive trend in employment, but according to the evolution in their share in sectors, female employment actually decreased. Then, in absolute terms employment of women were less affected by the recession than the men's one, but in relative terms they were more hit by the economic shock. These countries experienced a He-Cession and a She-Cession too. The gendered effect of the crisis on jobs cannot be explained only by the fact the men and women do not work in the same sectors, since the share of women in sectors has changed unfavourably for them. Besides Denmark also experiences a She-Austerity as the austerity phase seems to affect more clearly female employment than men's one.

Despite the sex occupational and sectoral segregation of labour markets, the reallocation of jobs during the crisis has a clear gendered dimension in some countries, especially in the UK and Denmark and to a lesser extent in France. The austerity phase that is less favourable to female employment seems in some countries (Spain, the UK, and Denmark). But other countries have not experienced such trends (Sweden, Italy and Germany). In Greece, both female and male employment has kept decreasing, and the third stage of the crisis has affected women and men with equal magnitude.

3. The impact of inequality on economic growth

Growing income inequality is by many economists considered to be one of the causes for the ongoing crises. In the economic literature, the nexus between inequality and growth has been discussed with reference to both, the functional and the personal distribution of income. Only recently, the availability of cross-country wealth data has directed attention to the drastic wealth inequality and its destabilizing effects in European economies and societies.

The long term fall in the wage share

The relation between growth and the distribution of national income goes back to a notion by Kalecki (1954). It is argued that an increase in the wage share boosts aggregate demand since the propensity to consume out of wages is higher than that out of capital incomes. A growth regime that is mainly driven by increases in the wage share is called wage-led. In contrast, Goodwin (1967) argued that higher profits translate into higher investments and thus a higher profit share leads to more growth (profit-led demand regime). Considering the two opposing theoretical views, the empirical literature, that captures the total effect of changes in the wage and profit shares on aggregate demand, is discordant (Stockhammer/Onaran 2013). Briefly speaking, most studies conclude that domestic demand is wage-led since consumption is much more sensitive to an increase in the profit share than is investment. On the other hand, demand is profit-led when the effect of the functional distribution on exports is high enough to offset the effects on domestic demand which is likely only in small open economies. This may hold for the majority of single member states but certainly not for the EU or the euro area as a whole.

From a Post-Keynesian view, falling wage shares have led to a stagnation of domestic demand in most European countries. Figure 15 illustrates the long-term decrease of wage shares since 1980. The literature enumerates various interdependent reasons to explain this development: a change in power relations between labour and capital, globalization, financialization, welfare state retrenchment, and changes in technology.

Figure 15. Adjusted wage shares at factor costs in selected European countries
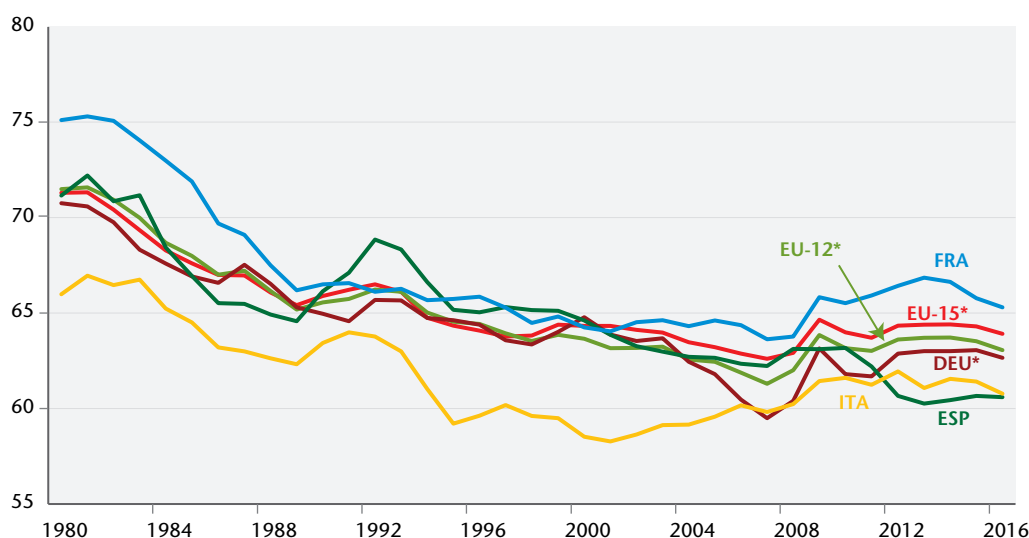

Note: (*) 1980-1990 West Germany
Source: AMECO Database.

Rising income and wealth shares at the top

Concerning the relation between economic growth and the personal distribution of income, the debate mainly focuses on the rise in top incomes (Atkinson

et al. 2011, see Figure 16). There is a widespread perception that particularly the increasing income share of super-rich individuals has led to excessive speculation. The intuition is simple: consumption possibilities exhaust with increasing income and speculative behaviour and risk-taking increases particularly at the top. Rising inequality may thus contribute to financial market bubbles which can further destabilize the economy as a whole. The argument holds all the more for the wealth distribution which is significantly more skewed than income distributions across European countries (Sierminska and Medgyesi 2013). However, there is hardly any empirical evidence since it is difficult to operationalize the concept of speculation. At least wealth survey data (like the Survey of Consumer Finances for the US or the Household Finance and Consumption Survey for the euro area) confirm that rich households hold riskier assets (Stockhammer 2015).

Figure 16. Top 1% income shares in selected European countries

Note: (*) 1980-1990 West Germany.
Source: World Top Income Database.
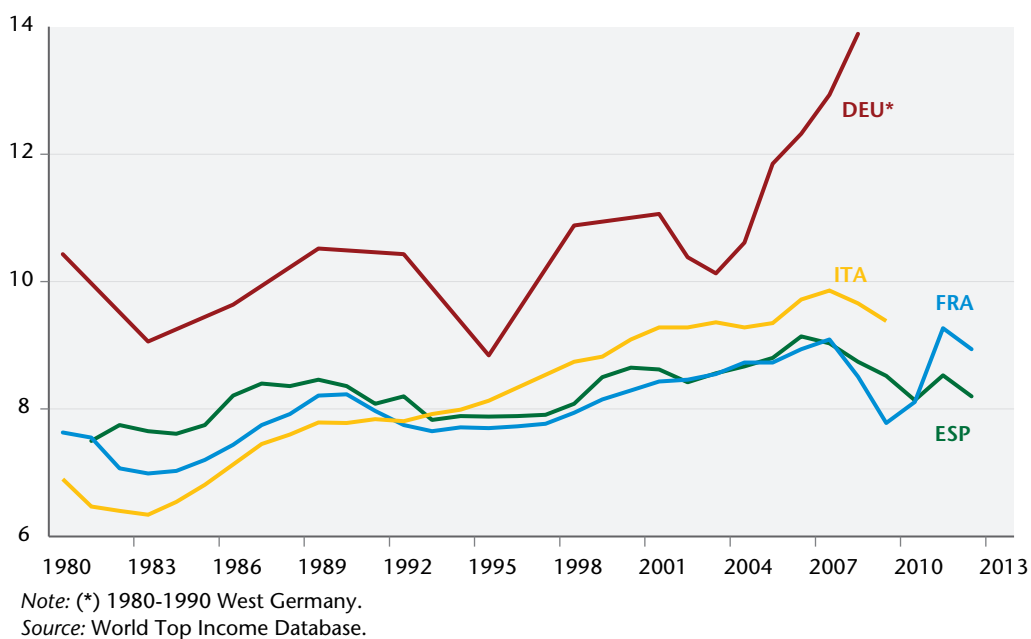
Another argument focuses on the bottom tail of the distribution and empha-sizes rising household debt as a consequence of growing inequality. According to Barba and Pivetti (2009), rising household indebtedness is a response to stagnant or even declining real wages and retrenchments in the welfare state. Empirical results suggest that whilst the distribution of debt among all income groups has remained rather stable until 2007, debt relative to income has increased more for lower income groups. The excessive indebtedness of private households has played a major role for the destabilization of several economies.

All in all, rising inequality in both the functional and the personal distribution has severe effects for economic growth, expressed in stagnant domestic demand, asset price bubbles, and rising household indebtedness (see Figure 17). Given the increase in inequality, it can be argued that European countries mainly followed two growth regimes (debt-led and export-led growth) which further led to the massive imbalances in the current accounts.

Figure 17. Relationship between rising inequality and economic growth
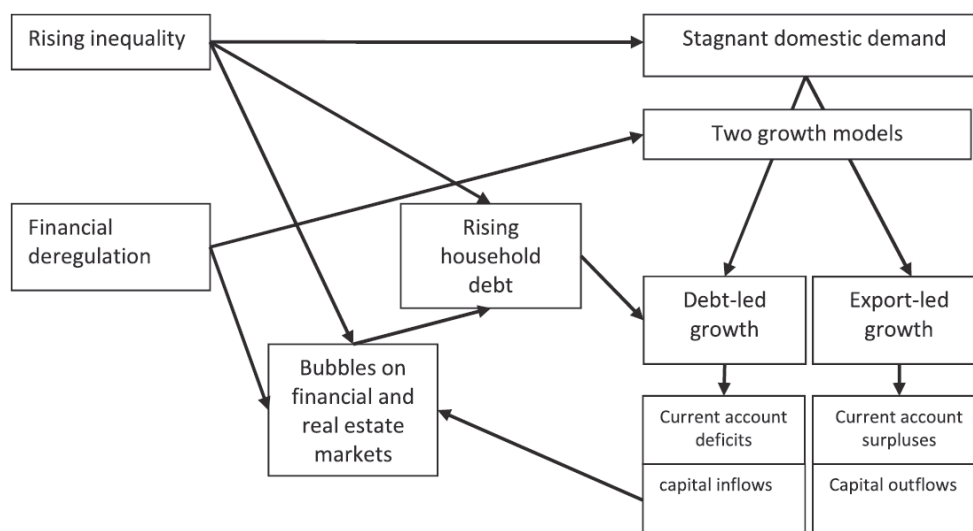
Source: Stockhammer (2015).

New empirical evidence

The growth-inhibiting and destabilizing effects of rising inequality has recently attracted the attention of international institutions. New empirical evidence by the IMF shows that if the income share of the top 20 percent increases, economic growth declines over the medium term, suggesting that the benefits do not trickle down (Dabla-Norris *et al.* 2015). If the income share of the top 20 percent rises by 1 percentage point, GDP growth is actually 0.08 percentage point lower in the following five years. In contrast, an increase in the income share of the bottom 20 percent generates higher GDP growth: 1 additional percentage point in the income share is associated with 0.38 percentage point higher growth.

Similarly, new OECD evidence shows that growing inequality is harmful for long-term economic growth (OECD 2015a): "The rise of income inequality between 1985 and 2005, for example, is estimated to have knocked 4.7 percentage points off cumulative growth between 1990 and 2010, on average across OECD countries for which long time series are available." According to the OECD experts, the key driver is the growing gap between lower-income households – the bottom 40% of the distribution – and the rest of the population. Another important aspect is that unequal countries invest too little in education for the lower-income and lower educated households. Thereby, the opportunities for children who grow up in such households are not fully exploited.

Based on detailed data, OECD investigates the relation between the chances of a child obtaining an education depending on the parental level of education and the inequality in the country. In countries with high inequality, offspring of parents with the lowest education have smaller chances of obtaining a higher education compared to countries with a more equal income distribution. In the less equal countries, children with less-educated parents do worse in school and they are more likely to remain outside the labor market in their adulthood.

**Figure 18. The probability of obtaining a higher education distributed on parents'
level of education and the inequality of the country measured
by the Gini coefficient**
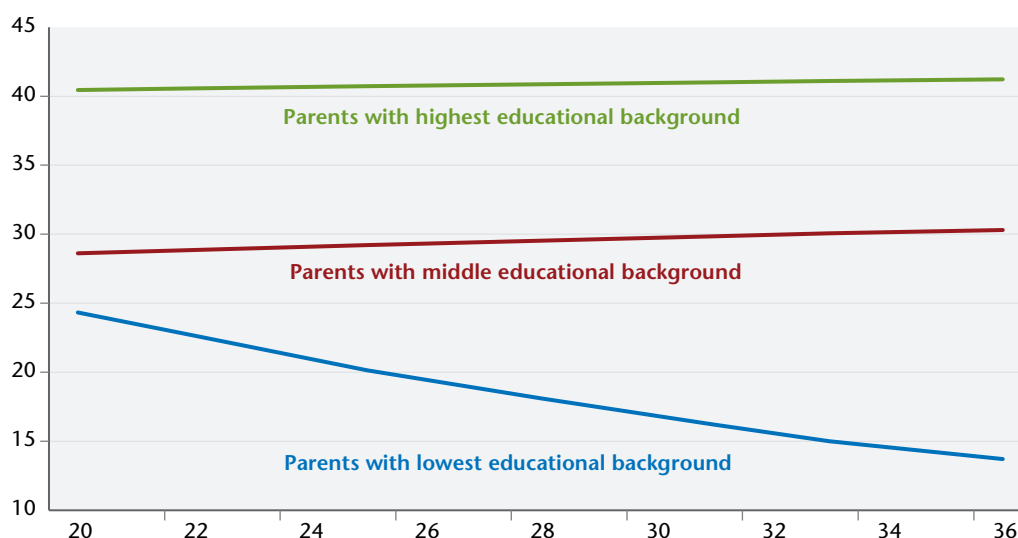
Note: The figure shows the relation between the chance for children of obtaining a higher education distributed on their parents' educational level and the Gini coefficient in the country when the child was around 14 years old.
Source: OECD 2015a.

In Figure 18, the relation between a child's chances of obtaining a higher education based on income inequality (measured by the Gini coefficient) and parental educational levels is depicted. It is shown that children of parents with the highest educational background have the highest chance of obtaining tertiary education. The chances are around 40 percent and do not change with rising inequality. For children of parents with middle educational background, the chances of getting a higher education are around 10 percent smaller, but similarly, they do not significantly change with the inequality in the country. However, for offspring from parents with the lowest educational background, the chances are even lower and furthermore, they depend on the level of inequality in the country. In a country with relatively low inequality (Gini-coefficient of around 20), the chances are about 25 percent, but when inequality increases to a Gini coefficient of around 36, the chances fall to less than 15 percent.

To sum up the evidence by the IMF and the OECD, it is the poor, the middle class and the educational opportunities they have that matter the most for growth via a number of interrelated economic, social, and political channels. Policies to stimulate growth should therefore simultaneously address rising inequalities and the social consequences of the crisis in order to reduce income dispersion and promote inclusion (OECD 2015b).

4. Inequality: What can be done?

Inequality has many dimensions that are embedded in our social structures. First, we observe growing inequality between capital and labour. Second, there are disparities within and between gender and generations. Third, not only

outcomes but also opportunities are unequally distributed, leading to intergenerational persistence of inequality.

Given the manifold and severe consequences of growing inequality, the OECD (2015: 37) argues that "the most efficient policy package will address inequalities at the point where they originate". While it is important to tackle the origins of inequality, redistributive welfare states are an important vehicle to alleviate existing inequalities. Fiscal policy remains a central mechanism to achieve redistributive goals, as it affects both market and disposable incomes. Finally, the substantial inequality of wealth across European countries needs particular attention. The scientific literature and international organisations offer a great number of policy recommendations to tackle the challenges of inequality. The following enumeration provides a summary of the measures in debate.

1) **Rebalancing the relation between capital to labour:**

   Europe's workers need a considerable pay rise. The trend of decreasing or stagnating real wages hinders the economic recovery in the European Union, since lacking demand of private households hampers economic activity. Collective bargaining institutions and/or minimum wages are important tools to spur demand and ensure decent living standards for all workers. According to experts like Anthony Atkinson (2015) or Robert Reich (2015), fair wages are still one of the best ways to combat inequalities. In order to overcome the current crisis, the EU needs a comprehensive strategy for sustainable growth and high-quality jobs for the coming years. To secure employment contracts, workers' rights must be respected through trade union representation and effective sanctions and enforcement.

2) **Reducing unemployment and improving job security**

   Fighting unemployment and creating not only more but also better jobs, in the public and the private sector, must remain a number one priority for policy makers. The OECD (2015) argues that increased labour market segmentation and unemployment, along with the changing nature of employment, are main factors that contributed to increased income inequality during the last years. Today, we are facing huge gaps in social protection, resulting from the decline of standard nine-to-five jobs and stricter eligibility conditions in addition to an increasing number of people that need social protection as a result from the economic crisis.

   Focusing simply on the employment rate, as the EU Commission still does, is not enough today. The current employment rate target should be replaced by a target corrected for full-time equivalents and with differentiated targets for women and men. Europe needs not only more but also better jobs - jobs with decent working conditions and fair pay in order to combat in-work poverty and wage dispersion.

   Finally, working time has to be distributed more equally within the labour force. An increasing number of workers lack working hours, while at the same time others are suffering from increasing work intensity, over-long hours and unacceptable consequences for health. Reducing working time entails lots of positive side effects. It can contribute to lowering unemployment rates and to distribute unpaid work more equally. Reductions in working time can be

negotiated within collective bargaining systems or by legislation. Increasing the overtime premium paid by employers and putting all-in-contracts under strong legislative control can contribute to effectively reducing working hours.

3) Addressing the gender gaps and labour market segregation

Women face lower hourly incomes and are employed in part-time work more often than men. They also carry out a disproportionate share of unpaid care work and lag behind regarding wealth and power. Deep labour market segregation still persists, contributing to gender gaps in pay, pensions, decision-making, and wealth. Legislation has to contribute to establishing equal working conditions and equal pay for the same work in all sectors and professions, also by regulating wage transparency and pay audits on the company level. It is necessary, that both, men and women are able to combine a full-time position with care responsibilities, in order to combat the gender gaps in full-time and part-time positions. Women are not only overrepresented in part-time positions, but generally in low-wage and non-standard occupations. Although increasing minimum wages to an appropriate level can help to reduce income inequality and decrease poverty, more has to be done. Parental leave arrangements for the exclusive use of fathers have to be intensified. Additionally, public investment is needed to provide childcare opportunities and all-day schools.

4) Strengthening the role of welfare states and increasing progressivity of tax systems

Welfare state expenditures for social security, health and education have to be seen as investments in the future of Europe. Besides extending the above-mentioned coverage of social protection, benefit levels have to be increased in order to effectively combat poverty. This is also in line with the Europe 2020 strategy.

Welfare states via taxation and spending policies are an essential tool to reduce inequality in market incomes and to stabilise growth. It is worth noting that also the OECD and the IMF provide empirical evidence that redistribution via taxes and transfers does not necessarily harm economic growth. Overall, current tax structures in European countries are less progressive today than 20 years ago. Increased progressivity in the taxation of incomes is not only a question of introducing higher marginal tax rates on high incomes; also the tax base has to be considered. Most of the tax exemptions and deductions in place today disproportionally benefit high-income and wealthy households. With the aim of broadening the tax base, these exemptions should be abolished.

It is also essential to shift taxes away from labour towards immovable property, financial assets, inheritances, and green taxes. This is also promoted by the European Commission who finds "that there is scope to shift labour taxes to more growth-friendly taxes in all the Member States where there the tax burden on labour (overall or for specific groups) is high. Although steps have been taken in this direction, most Member States in this position could go further" (European Commission 2015).

Additionally, tax compliance has to be improved across Europe.

5) Reducing wealth inequality

Wealth is much more unequally distributed than incomes and likely to become more so over time (Piketty 2014). Wealth concentration does not only have detrimental effects for economic growth, but also for social stability. Wealth taxes are particularly suitable to pursue distributive justice, finance government spending, and strengthen economic growth at the same time. This is also recognised by the OECD (2015), suggesting that "governments should re-examine a wide range of tax provisions to ensure the wealthier individuals contribute their share to the tax burden." The IMF and the European Commission refer to recurrent taxes on residential properties as an underexploited, although growth-enhancing, revenue source with a tax base that is hardly movable and hard to hide. Further, property taxes can be made progressive easily, for example via a basic allowance or by varying the tax rate with the value of the property. From an administrative point of view, transaction taxes are appealing, as transactions are easy to observe and the IMF emphasizes that compliance is expected to be large.

The most prominent proposal with respect to reducing wealth inequality has been made by Thomas Piketty (2014). He suggests a global tax on capital ownership, meaning a tax being annually vacant, using net wealth stocks as the tax base. Accordingly, OECD and IMF regard wealth stocks as a heavily underutilised source for progressive taxation. Net wealth taxes promote economic growth as the wealthiest have high savings propensity and consume only a small fraction of their capital incomes. The extent of labour and consumption taxes across European countries emphasizes that the wealthiest are not contributing adequately.

Abolishing bank secrecy and implementing systems for the automatic exchange of information on asset ownership between European countries are necessary preconditions for an effective taxation of wealth stocks. Further, companies and individuals can easily avoid and shift their tax base to avoid tax payments – often legally. Due to profit shifting, particularly by multinational companies, the EU lacks billions of Euros in their budgets each year. The ETUC calls for establishing a European Tax Investigation Agency, and full support of the OECD's Base Erosion and Profit Shifting (BEPS) initiative by European Union countries. In order to ensure a fair and effective taxation of wealth that makes wealthy individuals and corporations pay their share, international cooperation and transparency have to be strengthened.

6) Enhancing social mobility by taxing inheritances

From the perspective of promoting intergenerational mobility, inheritance taxes are most promising. Taxing inheritances massively contributes to decreasing wealth and income inequality and equalizing opportunities. While most European countries levy such taxes, some member countries have to catch up.

Put together, Europe needs more and better employment for all in order to increase the wage share and decrease the dispersion of incomes. Additionally, financing redistributive welfare states *via* the taxation of high wealth stocks, incomes, and inheritances promotes economic growth and increases social stability of societies.

MACROECONOMIC TRADE-OFFS IN THE EURO AREA

The recent Report of the Five Presidents has highlighted the necessity of progress in the EU in four directions: achieving "a genuine Economic Union, (…) a Financial Union, (…) a Fiscal Union, (and) a Political Union". The associated roadmap for completing the EMU includes a greater focus on employment, a better implementation of Macro Imbalances Procedure, a better assessment of fiscal stance and fiscal sustainability, the completion of the Banking Union and the launch of a Capital Markets Union. They thus point to a very large set of ambitions which renews the debate about the consistency of existing 6-pack, 2-pack and Fiscal compact, which were mainly related to fiscal and competitiveness issues, and are now encompassing the issue of financial stability with the introduction of Banking and Capital Markets Unions.

The Report raises an important question: is it possible to close the unemployment gap (the difference between actual and natural rates of unemployment), achieve public finance sustainability, reduce macro imbalances, and ensure the liquidity and solvency of financial institutions at the same moment?

Achieving these different objectives is very difficult because of the internal inconsistencies and flawed assumptions in the Report of the Five Presidents:

— The closure of the unemployment gap and the reduction of macro imbalances can be fulfilled thanks to an improvement in competitiveness, which can be reached via wages cuts or low wage growth. This kind of structural reforms, if they are exclusively related to the labour markets, are no panacea. They may weigh on inflation and feed deflation pressures in the Euro area. The first two objectives are not only inconsistent with the objective of price stability of the EU (see below), but also inconsistent with the achievement of fiscal sustainability: deflation increases the real value of debts and thus slow-downs the ability of countries to reduce actually their debt-to-GDP ratios. This may then impact the portfolios of banks.

— Fiscal sustainability remains intrinsically related to fiscal austerity which weighs on price development and on output; both outcomes finally weigh on fiscal sustainability as they increase the real value of debt or the debt-to-GDP ratios; moreover, low growth prospects do not help closing the unemployment gap, unless the natural rate of unemployment rises. In this latter case, targeting the closure of the unemployment gap and improved fiscal sustainability would lead to lower future structural growth. In this context, Capital Markets Union would do little to help: credit demand will decline with structural low economic growth rates.

— The asymmetry in the reduction of macro imbalances, as it stands out in the Macro Imbalance Procedure for example[1], has led to the generalization of current account surpluses all over Euro area countries since 2015.

In this context, the market mechanism that would reduce macro imbalances is a Euro appreciation. Such an appreciation would be detrimental to the closure of the unemployment gap: it would indeed reduce net exports, even after taking attention to changes in the value added global chains (see Leigh *et al.*, VoxEU, 30 October 2015), but then also economic growth in a euro area whose recovery remains fragile.

This chapter aims at highlighting these tradeoffs against the backdrop that the euro area risks being forced into an equilibrium of low growth and low inflation that will make it more painful to reduce external and public disequilibria.

1. The secular stagnation hypothesis, ECB policies and structural reforms

Secular stagnation

The equilibrium of low growth and low inflation has recently been largely debated under the label of "secular stagnation". The secular stagnation hypothesis was first expressed in 1938 in a speech by A. Hansen finally published in 1939. Hansen worried about insufficient investment in the United States and population decline after a long period of strong economic and demographic expansion. The secular stagnation hypothesis is interpreted as a savings glut leading the "natural" real interest rate (which is compatible with full employment) below zero. However if the real interest rate remains permanently above the natural rate, then it results in a chronic shortage of aggregate demand and investment, with a weakened potential growth.

In order to counter secular stagnation, monetary authorities have, first, reduced their policy rates, and then, after policy rates have hit a zero-lower bound (ZLB), they have had recourse to Quantitative Easing (QE). Indeed, central banks cannot force policy rates below zero otherwise private agents would be well advised to keep their savings under the form of bank notes. Beyond QE measures, what other policy measures can theoretically help escape a secular stagnation?

The fall into secular stagnation has been recently modelled and discussed by Eggertsson and Mehrotra (2014) and Le Garrec and Touzé (2015), see Box 1. According to them, secular stagnation has been caused by credit rationing. Tightened credit constraints after the onset of the global financial crisis automatically implied a decrease in the demand for credit that can only be adjusted by a lower real interest rate. Starting from a situation of full employment, if the credit crunch is large, the equilibrium interest rate becomes negative, which makes conventional monetary policy ineffective. In this case, the economy plunges into recession with an underemployment of labour, thus associated with a product lower than its potential, and with deflation. The level of capital converges monotonically to a lower level. By contrast, there is an initial overshooting of deflation.

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1. The MIP gives more importance to limiting deficits than to limiting surpluses.

Indeed, as the level of capital already installed cannot be adjusted immediately, there is an excessive supply which results in a high deflation. Deflation then converges gradually to a lower level. Secular stagnation equilibrium à la Eggertsson and Merhotra (2014) persists as long as the credit crunch lasts. From this perspective, active credit stimulus policies are crucial to escape secular stagnation. However, the financial crisis is not the only condition for the existence of a secular stagnation equilibrium. In particular, a reduction in the growth of the workforce and an increase in life expectancy also contribute to explaining secular stagnation. Accordingly, Larry Summers said in 2013 in the Financial Times that stagnation may well have become the "new normal". In addition to the stabilization of financial markets, economic policies can be very effective at fighting against secular stagnation. They can rely on monetary and fiscal tools but also on structural reforms and public investment provided they help increase productivity.

Box 1. Modelling issues about secular stagnation

The model developed by Eggertsson and Mehrotra (2014) contributes to the renewal of macroeconomic analysis in the understanding of the multiplicity of equilibria and the persistence of crisis. In their model, households live three periods, consume, save and participate in the production of a good. This framework allows to move away from the assumption of a representative agent. Eggertsson and Mehrotra (2014) then show how the inclusion of agents positioned differently on the life cycle provides a steady-state equilibrium of the secular-stagnation type. Their model has the great merit to clarify the mechanisms of the fall into long-term stagnation. According to this approach, secular stagnation was initiated by the economic and financial crisis of 2008, the latter being associated with an indebtedness of households which resulted ultimately in credit rationing to these same households. In this context, credit rationing leads to a decline in demand and a savings glut. Therefore, the real interest rate decreases. The monetary authorities to counter the low inflation associated with the drop in demand must then reduce the policy rate. Such a policy is of course possible if the nominal rate ensuring the achievement of the inflation target remains positive, that is to say, if the equilibrium interest rate is not too strongly negative. If it does not, then the conventional monetary policy becomes inactive when reaching the ZLB. In such a configuration, the inflation target cannot be reached, leading the economy to a low-inflation area, or even deflation. In the latter case, the nominal downward rigidity of wages leads to a rise in the real cost of labour and thus a drop in labour demand by firms. Consequently, unemployment increases permanently. There is no rebalancing force towards full employment equilibrium.

In the model proposed by Eggertsson and Mehrotra (2014), there is no capital accumulation. Therefore, the underlying dynamics may characterize a very short term: After the credit crunch, there is an instantaneous jump to full employment equilibrium towards secular stagnation (and vice versa if the credit constained is loosened). To extend the analysis, Le Garrec and Touzé (2015) have considered

the accumulation of physical capital as a prerequisite to any productive activity. Specifically, they have assumed that individuals must borrow to acquire capital when young, a capital that will become productive only in the next period. Then, Le Garrec and Touzé (2015) highlight an asymmetry in the dynamics of secular stagnation. If the credit constraint is loosened, then the capital converges to its pre-crisis level. However, recovery takes more time than the entrance into secular stagnation, almost twice as long. This property suggests that the economic policies to fight the secular stagnation must be made within the shortest possible time, and potentially over an extended period.

The outcomes of the secular stagnation approach are many. First, to avoid the ZLB, there is an urgent need to create inflation. However, such a measure should avoid "bubbles" on speculative assets (Tirole, 1985), which could require special regulation (Gali, 2014). The existence of a deflationary equilibrium questions the merits of monetary policy rules too focused on inflation (Benhabib *et al.*, 2001). The right policy mix consists in supporting structural policies with a sufficiently accommodative monetary policy. Reducing savings to raise the real interest rate (e.g., facilitating debt) is an interesting idea but the negative impact on potential GDP must not be overlooked. Another interesting solution is to finance infrastructure policy, education and R&D (to increase productivity) via government borrowing which would help push up real interest rates. Indeed, a strong investment policy (public or private) funded so as to raise the natural interest rate can satisfy a dual objective: supporting aggregate demand and developing new productive capacities.

ECB policies

Since July 2012, much has been expected from the European Central Bank and much has been achieved: words have been helpful in dampening the sovereign debt crisis and deeds, like a more aggressive Quantitative easing (QE) policy, have had the potential to revive the Euro area perspective, in terms of growth and inflation. It remains that the revival has been short-lived. The reason is that the ECB cannot do it all on its own.

In iAGS 2015, we pointed out the negative slope of inflation expectations in the Euro area and argued that QE would be necessary to reverse this slope and have inflation expectations return to the ECB inflation target at 2% per year in the mid-run. In compliance with the secular stagnation hypothesis, the underlying message is that conventional monetary policy is stuck at the ZLB and cannot deliver the optimal monetary policy, unless unconventional measures are implemented.

There are many ways to define an optimal monetary policy and a very useful one takes the form of a monetary rule. Blot, Creel and Ragot (2015) estimated the reaction of conventional policy, i.e. changes in short term interest rates (EONIA rate) in the Euro area, to different macro indicators: inflation, real output growth, nominal output growth and financial stability index since 1999. Drawing on the pre-crisis period, they simulated the path of EONIA had it reacted according to the pre-crisis estimation of a flexible inflation targeting rule or a Nominal GDP

targeting rule (Figure 1). Both simulated paths are quite different from the actual one after 2009Q1, showing that the pursuit of the pre-crisis monetary policy would have required a sharper decrease in the short-run interest rate, up to achieving negative rates of -3.5 to -4 per cent at a time when the actual rate was set at 1 percent. This difference gives an assessment of the margins for manoeuvre that the ECB needed but was not able because its interest rate instrument was set close to the zero-lower bound (ZLB). When it finally reached the ZLB in late 2014, simulated rates were still 2 percent lower. This margin for manoeuvre that a conventional policy does not permit is the very margin that an unconventional policy is supposed to bring.

Figure 1. Counterfactual interest rates since the crisis (in %)
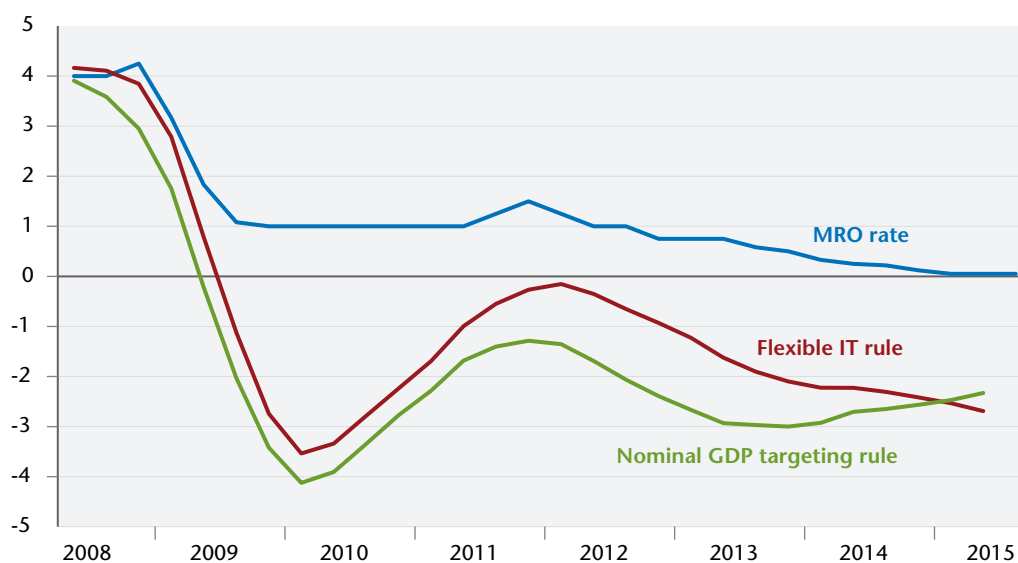
Source: ECB Statistical Data Warehouse and Blot, Creel and Ragot (2015)'s estimates.

Drawing on the Bank of England, the Bank of Japan, and Federal Reserve QE experiments, it appears that QE's main transmission channel has been the portfolio-balance one. Stated briefly, the portfolio-balance effect is such that if the central bank buys assets, portfolio arbitrage generates an increase in the prices of the assets concerned as well assets whicfh are close substitutes, lowering yields and, thus, borrowing costs. At the same time, higher asset prices increase the wealth of economic agents and thus their ability to generate more spending.

In the Euro area though, this effect may not prove very fruitful. First, some countries, like Germany, already have historically low interest rates. A ZLB on government bond yields may arise and limit the effectiveness of QE. Consequently, interest rates would not necessarily decrease in the Euro area, as would be expected, although the Euro would depreciate.

Hence, the main channel of QE transmission in the Euro area may be the exchange rate channel. A depreciating Euro *vis-à-vis* e.g. the US dollar may generate some inflation in the euro area. Experience with QE by central banks outside the euro area has not shown strong exchange rate channels, but this situation can be explained by a (relative) monetary synchronization among the

major central banks: all central banks delivering the same monetary stance at the same moment, no interest rate differential emerges, which prevents exchange rate modifications. In the current context of the European QE, with monetary de-synchronization, the exchange rate channel may be expected to substitute for the less successful portfolio balance effect. Consequently, it may be recommended that the ECB does not prevent the Euro depreciation, though it may lead to higher exchange rate volatility. As a matter of fact, monetary policy de-synchronization between the euro area and the US may produce some overshooting à la Dornbusch, i.e. a sharp Euro depreciation in the short-run, followed by an appreciation towards the long-run exchange rate. Not preventing the Euro depreciation certainly requires communication by the ECB on the persistence of a low MRO interest rate ("forward guidance"), acknowledging the reliance of QE on the exchange rate channel.

It remains that the context in which QE measures have been implemented matters. In the United States and United Kingdom, QE measures started when inflation, not deflation, was present in the economy. In Japan, QE measures occurred against the backdrop of deflation. In the literature, QE has usually been found to be more effective in the US and the UK than in Japan. One important reason behind this assessment is the impact of deflation on debt. Under deflation like in Japan, the potential growing size of real debts burdens the policy mix as it fosters the government to resume fiscal consolidation. In the European context, it is certainly crucial that QE does not see its potential effects limited by a new wave of austerity because prices, currently going down in a number of countries, weigh on real debts. On the contrary, in order to escape the deflationary Japanese trap, more than an accommodative monetary policy is required, whatever the size of the accommodation. An expansionary policy mix is required (Watt, 2015).

A key message for the euro area from QE foreign experiments is indeed to endeavour to improve policy coordination between euro area governments and the ECB. When inflation is positive, QE is able to alleviate the real costs of fiscal consolidation, via lower government and corporate bond yields. It has happened in the US. When deflation occurs and under the zero lower bound, QE cannot alleviate these costs. Hence, the success of ECB QE at driving up inflation and inflation expectations requires government interventions. An actual flexibility in the management of public deficits, with margins for manoeuvre to limit fiscal consolidation or to implement a fiscal expansion in some countries, may help the ECB to fulfil its mandate. It may be stressed that fiscal multipliers can be larger due to the expansionary monetary policy. It may then call for a stronger coordination between fiscal and monetary tools. To this end, the ECB might reinforce the impact of investment plans in the euro area and notably the Juncker's Plan by making securities issued to finance investments (public or private) eligible to the assets purchase programme. Monetary policy effectiveness might be reduced when private agents are deleveraging. This was also emphasized during the Japanese crisis, with the problem of a fragile banking system. It is then of crucial importance to address this issue and to this end, the new role of the ECB within a completed Banking Union, as financial supervisor, is important.

Once it has been said that monetary policy ought to be more expansionary to drive inflation up, one question arises: considering the extent of globalization, which has led to a large increase in world competition, is it possible for a

domestic policy to have any impact on inflation? Blot *et al.* (2015b) studied whether inflation in the euro area is determined, and to what extent, by global (or external) factors. Their estimation is that half of the inflation dynamics (measured by the CPI which is the target of the ECB) is explained by global factors. This may seem a lot, but it also implies that half of the inflation dynamics is determined by past inflation and domestic factors which can be affected by monetary policy. Then, they study whether policies implemented by the ECB have an impact on inflation components – domestic or external. Stated differently, they consider whether the ECB can still control inflation and to what extent. They report that a monetary shock impinges on domestic inflation rates: a restrictive monetary policy generates a reduction in inflation rates, CPI and core, whatever the model used to correct for global factors. This result shows the ECB can indeed impact, then control, domestic inflation rate if it deploys its instruments.

Now, what about the impact of ECB policies since 2014? On the one hand, Blot *et al.* (2015a) argue that the most recent ECB's QE will lead to a small depreciation of the euro *vis-a-vis* the US dollar, with a maximum impact of 0.1 percentage points after 10 months. The estimated effect on inflation would be positive with a maximum impact of 0.8 percentage point after 6 months and positive on industrial production with an effect of 4 percentage points after 8 months. Except this latter effect, other effects are quite limited. Expecting too much from QE would be a mistake. On the other hand, Creel, Hubert and Viennot (2015) investigate the impact of ECB policies on financial markets. They assess the transmission of ECB monetary policies to both interest rates and lending volumes or bond issuance in the four largest economies of the euro area: Germany, France, Italy and Spain. They study three different unconventional policies: excess liquidity, longer-term refinancing operations and securities held for monetary policy purposes following the decomposition of the ECB's Weekly Financial Statements, and compare their effects with those of conventional policies. Their main result is that only the pass-through from the ECB rate to interest rates has been effective, consistently with the existing literature, while the transmission mechanism of the ECB rate to volumes has been weak. Unconventional policies have had uneven effects. It gives support to the break-up of unconventional policies between excess liquidity, LTRO and SHMPP. Excess liquidity has an effect on interest rates in Germany and Spain, and on volumes in France and Spain. In comparison, the impacts of LTRO measures are weaker and concentrated exclusively on interest rates. In contrast, SHMPP measures which were targeted towards peripheral countries have been effective at modifying interest rates in these countries and, to a lower extent, volumes, and have had no impact in the core countries. As a conclusion, the more targeted monetary policies are, the more efficient.

In the current situation, where deflation is never far, a more expansionary monetary policy by the ECB is certainly required. It should also be accompanied by progressive reforms that lead to increases in wages, if the reluctance of Germany could recede. Indeed, financial conditions and wages and costs account for 10 percent each of the variance in euro area CPI (Blot *et al.*, 2015b): boosting them would help reverse the deflationary trend.

Structural reforms

According to many commentators[2], what is needed, now more than ever, is a dose of supply-side "structural reforms". Indeed, this is the only sustainable way to do so given concerns often expressed about expansionary demand-side policies. Moreover, many argue that it is necessary for such reforms to be actively coordinated at European, or euro area, level, indeed that swingeing sanctions must be imposed on recalcitrant governments in order to force them to do so. This is also the approach sketched out in the Five Presidents' Report. Initially coordination is to be an essentially voluntaristic approach, but subsequently "a set of commonly agreed standards with a legal character" is to be established, and sanctions imposed. Reforms that make the supply-side of our economies more flexible and efficient are – it is almost tautological – a "good thing". But before uncritically joining in with this choir it is necessary to reflect seriously, at the conceptual, the theoretical, empirical and also the political level.

The term structural reform is often used without any qualification. It is hard to know what it means apart from a change in policy. Two key ideas seem to be underlying most normative conceptions of what structural reforms are, or should be. One is the distinction between the demand and the supply side. Structural reforms improve the working of the supply side of the economy, instead of "merely" creating additional demand; the latter is considered ineffectual because inflationary in anything but the short run. The other is that the normative baseline is a competitive market economy. A structural reform is one that approximates a given society better to the ideal of a free market economy, increasing the role of market forces in determining economic and social outcomes. Let us refer to these as market-oriented structural reforms.

Yet it is obvious that the "free market economy" is at best an analytical figment of the imagination. Market imperfections are all-pervasive and ineradicable. All advanced economies have developed a dense network of interacting non-market and market-interventionist institutions (using the term in the broadest sense). The welfare outcome of changing such institutions in an apparently market-oriented direction is therefore ex ante unclear.

The following discussion focuses on market-oriented structural reforms[3] and the claim that they improve economic efficiency and this (always) leads to higher output. First we can take the demand side out of the equation and, for now, assume that any improvement on the supply side automatically translates into higher output (supply creates its own demand). From a microeconomic point of view we can say that a market-oriented reform will improve economic outcomes to the extent that the institutions changed were not themselves market-correcting in the direction of social "optimality". Yet things are more complex still. Changes in one area can give rise to behavioural changes that impact (either

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2. See for instance Banerji (2015) and the literature cited there.
3. Other "reforms" clearly do not fit in this category. Roeger *et al.* (2015)'s study includes in its simulations, alongside market-oriented labour and product market reforms, higher investment in human capital. Clearly the latter is of a very different order. It presumably involves higher degree of state involvement in the economy (given that education is largely publicly provided and this is what it at policymakers' discretion to influence) and higher (distortionary?) taxation.

positively or negatively) on other policy areas. A second issue is that all reforms will have distributional effects. A reform that raises aggregate incomes is likely to leave some worse off. It is not easy to evaluate the success of such a policy change because of the need to make interpersonal comparisons. In theory, it is true, a change that improves aggregate outcomes can be made "Pareto optimal" (i.e. improving or at least leaving unchanged the outcomes for everyone) by arranging for transfers from "winners" to "losers". In practice, however, this is seldom possible.

Now we need to revisit the assumption that supply-side efficiency improvements automatically translate into higher output. In normal times there is some justification for this view. The greater supply side efficiency raises potential with respect to actual output. This initially manifests itself in some combination of upward pressure on unemployment and downward pressure on inflation; firms can produce the same output with fewer workers and/or increased supply initially struggles to find buyers, bidding down prices. These tendencies are offset by macroeconomic policy, notably by an inflation-targeting central bank, raising demand to meet the increased supply. To the extent that supply-side reforms themselves have a negative impact on demand – for instance benefit and protective social legislation reforms might increase perceived insecurity leading to higher precautionary savings – this too can be offset by the macro authorities.

We are not living in normal times, however. As successive iAGS reports have chronicled, Europe has for many years been suffering from inadequate demand and, moreover, institutional obstacles to creating that demand. Inflation is well below target. Moreover, the private sector, households and firms, are, in many countries, seeking to reduce their exposure to debt and risk in the context of high unemployment and uncertain sales prospects. Europe is suffering from excess capacity. Even reforms that genuinely add to potential output will have ambiguous effects in such an environment. Measures that increase labour supply – which would be a positive in the context of buoyant demand – risk initially raising unemployment. In the current environment this is likely to render economic actors more pessimistic, undermining aggregate demand. Measures that reduce perceived job security, like reform of employment protection legislation, may have similar effects. Finally, reforms that have the effect of redistributing spending power from low-income to middle and high-income households will also tend to weaken demand at a time when it is the primary binding constraint on higher output and employment.

For all these reasons a time characterised by large negative output gaps is generally highly unfavourable for the introduction of market-oriented structural reforms.

A caveat is necessary in the context of the rebalancing needs within the euro area. It is true that the negative disinflationary and deflationary impact of reforms, emphasised above for the euro area as a whole, can produce beneficial effects in countries requiring an "internal devaluation" within the euro area: they serve to improve price competitiveness and this, considered alone, can raise output and employment. This is a relative effect, however. It does not by itself improve aggregate outcomes (although it may reduce unemployment in countries where it is high, increasing it where it is low). Such a strategy of relative disinflation induced

by market-oriented structural reforms is likely to be positive in a context where the surplus countries, undergoing "internal revaluation", are actively boosting demand and seeking to increase domestic absorption of rising exports from deficit countries. This point will be studied comprehensively in section III. Of course, the strong internal devaluation in Greece, without a German "internal revaluation" has been extraordinarily costly to the Greek economy (Box 2).

Box 2. The failure of the internal devaluation strategy in Greece

Internal devaluation was at the epicentre of creditors' strategy to improve Greece's international competitiveness and thus gear its economy towards a path of export-led growth. This strategy was also perceived as a necessary condition in order for the economy to alleviate the recessionary effects of austerity and for the public sector to generate steadily an adequate primary surplus required to restore its sovereign solvency. Yet, the ingredients of Troika's remedy that is a combination of reducing the minimum wage, decol-lectivising wage bargaining and lowering non-wage costs have proven profoundly mistaken.

In fact, between 2010 and 2015 the cumulative loss of real GDP has been astonishing, reaching 26%. This disappointing track record has been mostly driven by the plunge of domestic demand and the very weak macroeconomic environment produced by the creditors' austerity measures. Private consumption expenditure has declined in real terms by nearly 20%, while a harmful process of disinvestment and destruction of idle productive capacity is still underway. Nevertheless, the country continues to be stuck in a debt-austerity trap with its near-term fiscal outlook remaining gloomy and uncertain. The debt-to-GDP ratio is expected to reach a peak in 2016 (199,7%), with its public sector exhibiting high credit risk and very low safety margins for new borrowing.

A prominent factor behind depressed demand and economic distress has been the contractionary impact of labour market deregulation and wage reduc-tion measures taken as a part of the internal devaluation strategy. During the macro adjustment period (2010-2015), a trend of aggressive wage compres-sion has taken place, causing average nominal compensation per employee to plummet by nearly 17%. This outcome has been triggered by the wide-ranging changes imposed on Greek industrial relations in the framework of the two Memoranda, including the 2012 legislative reduction in the national minimum wage. However, in contrast to creditors' predictions, tough structural reforms have proven incapable of propping up price competitiveness and export performance. Whereas Greece has slid into a deflationary phase from the start of 2012, the downward adjustment in domestic and export prices has been much more moderate than that in the unit labour cost. Consequently, it comes as no surprise that the Greek economy has not witnessed any remarkable rebound in export growth. Any correction in the country's external balance has rather been motivated by the dramatic fall in imports in response to shrinking domestic demand.

This economic disruption has been further fueled by the adverse effects of creditors' agenda on employment and living conditions in Greece. In the second quarter of 2015, the rates of unemployment and of long-term unemployment

are 24.6% and 73.1% respectively. Besides, more than 49% of labour force aged 15-24 years remains out of work, while female unemployment rate constantly surpasses the nation-wide average, standing above 28%. On top of that, deregulation and recession have led to an unparalleled increase in income inequality and poverty. Between 2009 and 2013, the Gini coefficient has ascended from 32.9 to 34.5, while the share of population with disposable income below the 2007 poverty line has climbed from 18% to 48% in 2013, indicating the dramatic social cost of austerity.

Given the aforementioned, it is far from evident that the implementation of the third Memorandum recently concluded in the context of the country's new bailout programme leaves no room for optimism for Greece's economic and social condition. Greece is thus in the urgent need for shifting away from the creditors' failed austerity experiment and embarking on a credible recovery strategy that would fully incorporate the distinctive developmental features of the Greek economy and put descent employment creation at the core of the effort of reviving growth and creating a stable macroeconomic and financial environment in the country.

Often the debate seems to be driven by an at least implicit belief that European economies have long been unwilling or unable to implement structural reforms. Notwithstanding the immediate causes of the crisis and its social and economic consequences (financial markets, problems with macroeconomic governance) a failure to reform economies, for each country to "do their homework" is widely seen as being the deeper cause. Partly because of the conceptual issues identified earlier, it is not easy to assess the "volume" of reforms that countries have implemented at different times. As an indicative and intuitive starting point we consider labour market reforms, frequently identified as the key challenge, drawing on the European Commission's own database of labour market reforms, LABREF[4].

LABREF database indicates the number of individual labour market reforms identified by the European Commission for each year from 2000 to 2013[5]. In no year did the EU countries fail to implement more than 130 reforms. Since the crisis the rhythm has accelerated to around 300, and most recently some 400 reforms a year. Altogether, over the period considered EU countries implemented more than 3,500 labour market reforms. At first sight these data are hardly consistent with a widespread perception of policy paralysis or reform fatigue. Rather it would seem that member states have been engaged in an unrelenting and indeed intensifying reform program.

For the following analysis some rough adjustments were made to the reform-count scores for the different policy areas in order to bring them closer in line with the expectations of standard theory. The direction "increasing" and "decreasing" – which are coded by the authors of the dataset to indicate the direction of the

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4.   For details and data access see http://ec.europa.eu/social/main.jsp?catId=1143&intPageId=3193&langId=en/

5.   Data for Bulgaria, Romania and Croatia are only available for recent years. Incomplete data for 1999 and 2014 are not included.

reform – were scored +1 and -1 respectively for reforms in the following policy areas: labour taxation, unemployment benefits, other welfare benefits, employment protection legislation and wage setting regulation. In the first-mentioned case, for instance, this means that a reform which leads to higher labour taxation is scored +1. In contrast "increasing" and "decreasing" active labour market policy measures were scored -1 and +1 respectively, as greater use of ALMP is expected to have an unemployment-reducing effect. Because of their ambiguity regarding the expected impact on unemployment, reforms in the following policy areas were excluded: early withdrawal schemes (which affect employment, but not unemployment rates, at least not unambiguously), working time regulation and immigration and mobility. Also excluded were the (comparatively few) cases which had either been coded "no change" or which had not been coded at all in the database.

With these adjustments we would expect a positive correlation between the scorings and higher unemployment. Countries reforming in line with standard recommendations have negative scores – intuitively: the "weight" of regulation and expense is being lightened – and the prior is for them to have low (or falling) rates of unemployment. Figure 2 plots the adjusted reform scores against the unemployment rate at the end of the period. We see a weak negative relationship between the two: countries with a high intensity of "good" reforms were on the whole somewhat more likely to have above-average unemployment at the end of the period. The results (available upon request) are rather similar, but the link weaker still for the change in unemployment over the period 2000-2013.

Figure 2. Adjusted labour market reform scores 2000-2013 against unemployment rate 2013

Source: Own calculations on LABREF database.
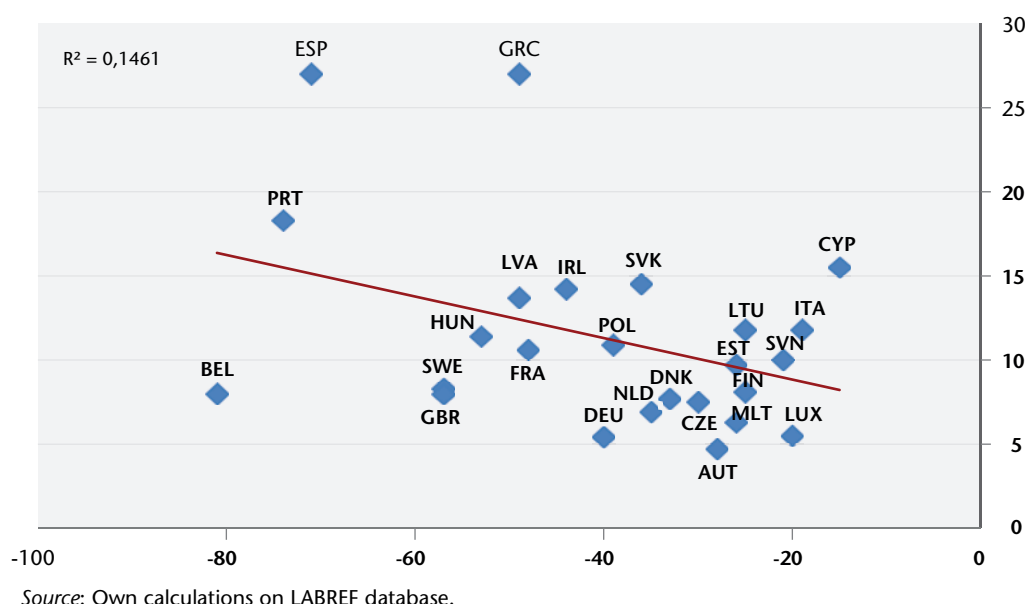
This is clearly a crude analysis. It leaves out the state of labour market institutions at the start of the period. It does not take account of the timing of reforms. Not least in the case of the southern European crisis countries many reforms in

the "right" direction clearly came, under intense political pressure, after the unemployment hike.

Even so, it is a highly revealing finding: the European Commission's own coding of the labour market reforms carried out by Member States since 2000 shows that countries have on the whole, with different intensity, pursued reforms in the spirit of standard policy recommendations, but the data does not clearly show positive labour market impacts. Note that this is not a result of the economic and financial crisis simply driving unemployment up irrespective of labour market conditions, and thus obscuring the positive impact of properly reformed labour markets. For if that positive impact were genuine, then reformed countries would have done better than unreformed ones *in relative terms*, and this would be visible in the data. It is not.

This weakness of the empirical evidence stands in marked contrast to the certitude with which labour market reforms are propounded as an essential component – if not a panacea – in any policy to improve labour market and economic outcomes. And this finding is not new. A detailed review of econometric studies of the institutional causes of unemployment across OECD countries found them to suffer from serious weaknesses and a pervasive robustness problem; see the contributions to Howell (2004).

Setting aside for a moment, the previous analysis which cast substantial doubt on the central importance in the current context to push through structural reforms, it is worthwhile to make the assumption that the introduction of market-oriented "structural reforms" as effective in improving economic outcomes, and in order to pose the following question: does it make sense to coordinate such reform efforts at European (or euro area) level, and even to force elected national governments that do not wish to implement certain reforms to do so?

Our analysis suggests that while such coordination and even imposition can be justified in certain circumstances and to a certain degree, for a number of important reasons a great deal of scepticism regarding the added value of European coordination in this area is in order.

The first question is whether there are strong spillovers between member states in the field of structural reforms, such that they should also be regarded as a matter of common interest requiring coordination and even imposition, as is clearly the case with fiscal policy. (The iAGS reports have been critical of the nature of that coordination, but the principle of the need for coordination is undisputed). As we have seen the Five Presidents' Report seeks to make that case. It is unpersuasive, however.

Let us take the most favourable case. Suppose there is a structural reform X which has the following characteristics. There is an overwhelming body of evidence that it raises employment rates or productivity (and thus output); it is such that it can be implemented within any existing national system to equal benefit; and it has no distributional effects – all citizens profit equally from its introduction. Suppose all countries introduced the measure bar one, country A, ruled by an incredibly obtuse government. Even in such circumstances the case for persuading the country to adopt the measure through some form of coordination process and, ultimately, to bully it into doing so is actually very hard to make.

Productivity or employment (and thus living standards) in country A would be lower than they might be and, other things equal, than in the other member states. But so what? Voters in country A have an opportunity to vote out the national government every four or five years. If they are sensible they will (other things equal) vote out the existing government, replacing it with one that has the introduction of reform X prominently in its manifesto; the reward will be higher living standards.

And if they do not? *Tant pis* for the population of country A! However, it is no loss to the citizens of other countries. At least – and here comes the caveat – this is true unless there are significant interregional transfer mechanisms from rich to poor areas of the monetary union. Where these exist, the citizens of country A would be partially shielded from bearing the full costs of their foolishness, to the extent of the transfer mechanisms, and the citizens of all other countries would be correspondingly poorer as a result.

It is well known that the degree of cross-border redistribution in the monetary union as presently constituted is extremely limited. The Five Presidents' Report is consistent to the extent that it is simultaneously calling for greater federalisation involving more risk sharing and transfers (for instance via a European Treasury) and for greater efforts to coordinate structural reforms; it is, as a matter of principle, correct that the justification, even need, for the latter tends to increase as a function of a move in a federalist direction in other areas.

Once we leave the rarefied world of our hypothetical reform X, however, even this argument for the coordination/imposition of reform loses saliency. For in the real world there is – as we saw earlier – no clear cut-and-dried case for the benefits of specific reforms. Even if there were such cases, the existing institutional frameworks in the member states are highly heterogeneous. The institutional complementarities have developed over decades and even centuries in a path dependent historical process that constrains the choices of today's policymakers. Some reforms are simply not operable in certain institutional frameworks. Others that have worked well in certain contexts – for instance in countries with strong institutions of cooperative social partnership – will have different, and possibly very adverse effects if introduced where these conditions do not prevail. Last but not least, each reform will have distributional effects. But the preference set of different populations varies regarding trade-offs between, for instance, aggregate output and a more or less equal distributions of income or other (e.g. environmental) concerns. This is an essentially political, and not merely a technocratic, matter. It is potentially dangerous to reduce it to the latter.

For all these reasons, enforcing reforms on unwilling populaces and governments is likely to be fraught with difficulty, produce sub-optimal results and raise difficult legitimacy issues for the European Union and for national governments. This does not mean that Member States cannot learn from one another, copying good ideas. On the contrary this can be very beneficial; the EU can serve as a collective "laboratory" for applying and testing policies and extending good practices. This learning process can usefully be systematised within the European institutions and policy schedules. But the above analysis suggests that the benefits of organising such processes with strong elements of coercion and applying across-the-board recipes are likely to be limited, but the economic but also polit-

ical costs may be high. Such intervention currently only makes sense, if at all, for "pathological" cases. This assessment is unlikely to change unless and until there is a step-change in the degree of interregional redistribution in Europe.

2. Identifying disequilibria and the way to tackle them

As set out in chapter 1, the economic outlook of Europe benefits from a new momentum. In the euro area, GDP is expected to reach 2% in 2016 and unemployment rate is expected to decline. Yet, it would still stand at a high level: 9.9% of labour force in 2017 against 7.5% before the outbreak of the subprime crisis. Considering a fall in the unemployment for 2016-2017 close to 0.6 percentage point per year, it will take almost seven years to bring the rate back to its pre-crisis level. The social and long term consequences of this situation have been analysed in chapter 2 and we have also claimed that more investment – and notably public investment – would boost growth and help to erase the scars of the crisis. Yet, EMU countries have also to comply with fiscal rules and the MIP and should then implement policies to bring public debt back to 60% of GDP in the long run and to correct external imbalances. Given the current situation in terms of public finance and current accounts, we can identify countries that will need to make additional efforts to comply with the debt rule[6] and countries for which an adjustment in relative prices is needed to reduce the current account deficit. In the following, we present the updates of work realized in previous iAGS reports.[7]

Complying with fiscal rule: is there a need for additional fiscal effort?

We first simulate the path of public debt-to-GDP ratios until 2035, which is the horizon of the 1/20th debt rule incorporated in the revised SGP and in the Fiscal Compact. The simulated path of public debt depends on the fiscal impulses which have been forecast in the euro area in 2016 to 2017. We then assume zero fiscal impulses beyond 2017. Simulations are realized with a model representing the main countries of the euro area: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. Details of the model are available in a technical appendix to this chapter. The impact of fiscal policy on the economic activity depends on the fiscal multiplier effect, which is supposed to be time-varying. It is high when the output gap is negative (-1.5 for an output gap below -3%), equal to 0.5 when the output gap is zero and it becomes small (0.2) when the output gap exceeds 3%.

In the baseline scenario, we suppose that interest rates in all euro area countries converge to the same level and that inflation expectations are anchored to the same inflation target (2%). Under these assumptions (initial conditions for the simulations are presented in the technical appendix), we compute the debt dynamics, structural balance, inflation rate and GDP growth rate (or output gaps) from 2016 until 2035. Results are reported in Table 1 The simulations suggest

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6.   See previous editions of iAGS performing the same exercise.
7.   See chapter 4 of 2013 iAGSreport, chapter 1 of 2014 iAGS and chapter 1 and 5 of 2015 iAGS.

that France, Italy, Spain, Belgium, Greece, Finland and to a lesser extent Austria would need to implement additional fiscal efforts to be able to comply with the debt rule. Greece – with debt reaching 108% in 2035 – would be the country where fiscal consolidation would be the most substantial, followed by France (97%) and Spain (89%). Though debt would be significantly reduced, from 133% in 2015 to 80% in 2035, Italy would still be far from the 60% objective. Considering a "no change in fiscal policy" beyond 2017, debt level would decrease below 60% in other countries, providing some fiscal space. Germany would be in this situation, with public debt reaching 24% in 2035. Portugal and Ireland are also concerned. Debt-to-GDP ratio would reach 62% in the Netherlands in 2035. The situations of public finances may also be illustrated by structural balances. France would have a 2.7% structural deficit in 2020 and it would still increase from 2020 to 2035 because of hysteresis effects present in the model. Despite high debt levels for Italy and Greece in 2035, these two countries would record a structural surplus. According to OECD estimates, the output gaps for Greece and Italy strongly deteriorate so that the bulk of the deficit in 2015 is cyclical. This may contrast with France. Then, though it might still stand above 60% in 2035, public debt would decline rapidly in Italy and Greece. Debt is currently lower for France but would stabilize at this level.

Table 1. Public finance and output performances under the baseline scenario (no risk premium, no fiscal impulse beyond 2017, time-varying fiscal multiplier, hysteresis effects)

	Public debt (in % of GDP)		Structural balance (in % of GDP)		Cumulative fiscal impulse	GDP growth rate (in %)		Average output gap	Inflation rate (in %)	
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35*	(6) 2016-20	(7) 2021-35	(8) 2016-35	(9) 2016-20	(10) 2021-35
DEU	57	24	0.8	1.4	0.7	1.3	1.0	0.2	1.8	2.0
FRA	95	97	-2.7	-3.6	-1.1	1.9	1.4	0.0	1.2	2.0
ITA	123	80	0.3	1.1	-0.2	1.2	0.2	-0.3	0.7	2.0
ESP	96	89	-2.3	-2.7	-0.7	2.3	1.4	0.0	1.1	2.0
NLD	67	62	-1.4	-1.9	-0.1	1.7	1.3	-0.1	1.2	2.0
BEL	102	87	-2.0	-2.1	-1.0	1.8	1.5	0.0	0.9	2.0
PRT	110	49	0.9	2.5	-1.2	1.9	1.0	-0.3	0.9	2.0
IRL	76	21	0.9	2.6	-1.2	2.6	1.8	0.4	1.8	2.1
GRC	175	108	0.4	0.8	-1.4	3.1	1.0	-0.8	-0.7	1.9
FIN	65	74	-2.4	-3.3	-0.6	2.1	1.6	-0.2	1.3	2.0
AUT	83	69	-1.3	-1.5	0.7	1.6	1.4	-0.3	1.2	2.0
EA	**87**	**65**	**-0.8**	**-0.8**	**-0.3**	**1.7**	**1.1**	**0.0**	**1.3**	**2.0**

* In the baseline scenario, fiscal impulses are equal to 0 from 2018 to 2035.
Source: iAGS model.

Average output is negative for Italy, the Netherlands, Portugal, Greece, Austria and Finland and close to zero for the euro area as a whole (the cumulated output over the period 2016-2035 is yet slightly negative: -0.6%). Germany

would be the main exception. As output gap is negative and inflation is below the 2% for the euro area in 2015, monetary policy is expansionary. All countries benefit from this policy. But for countries, where output gap is nearly closed, the positive stimulus would drive GDP growth above the potential growth rate.

The next step is to assess whether countries are able to meet the ceiling by 2035. As for previous reports, the aim is to reach 60% for all countries. Then countries, which have a debt below 60% in table 1, implement positive fiscal impulses. Considering current fiscal rules, we apply fiscal impulses capped at +/-0.5. Successive positive (if country-debt is below 60% in table 1) or negative (if country-debt is above 60% in table 1) impulses are implemented from 2016 until the debt-to-GDP achieves reaches 60%. We find that all countries but Greece would be able to comply with the fiscal rule on public debt. Yet, it may involve a significant additional effort. The cumulated effort between 2015 and 2035 would amount to 4 points in France (Table 2), which is nearly 3 points above the expected effort announced until 2017. Italy, Spain and Belgium would be constrained to additional efforts of 1.7, 1.8 and 0.7 point of GDP.

Table 2. Is it possible to reach a 60% debt-to-GDP ratio? (baseline scenario except +/- 0.5 fiscal impulses depending on public debt gap *vis-à-vis* 60% target)

	Public debt (% of GDP)		Structural balance (% of GDP)		Cumula-tive fiscal impulse	GDP growth rate (%)		Average output gap	Inflation rate (%)	
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35	(6) 2016-20	(7) 2021-35	(8) 2016-35	(9) 2016-20	(10) 2021-35
DEU	60	59	-1.4	-2.0	3.1	1.6	1.0	0.4	2.1	2.1
FRA	97	60	-0.7	0.4	-4.0	1.4	1.5	-0.5	0.6	1.8
ITA	128	60	1.9	3.3	-1.9	0.6	0.3	-0.7	0.1	1.9
ESP	96	60	-0.3	0.2	-2.5	1.9	1.5	-0.3	0.6	1.9
NLD	63	60	-1.5	-1.9	0.4	1.9	1.2	0.2	1.6	2.1
BEL	99	60	-0.4	0.2	-1.7	1.7	1.5	0.0	0.7	2.0
PRT	106	60	0.1	1.1	0.8	2.2	1.0	0.0	1.4	2.1
IRL	76	60	-1.0	-1.5	3.4	3.0	1.8	0.7	2.3	2.2
GRC	206	152	1.3	5.2	-8.7	1.8	0.7	-3.6	-2.3	0.2
FIN	63	60	-1.7	-2.1	-0.5	2.1	1.6	-0.2	1.2	2.0
AUT	79	60	-1.0	-1.0	0.5	1.9	1.4	0.0	1.6	2.0
EA	**88**	**61**	**-0.5**	**-0.3**	**-0.5**	**1.5**	**1.1**	**-0.2**	**1.1**	**1.9**

Source: iAGS model.

Germany would benefit from fiscal space according to the debt criterion and may implement a fiscal stimulus of 3.1 points, which is 2.7 points higher than what is currently expected and shown in table 1 It must be stressed that Ireland and Portugal would also have fiscal space in this scenario. This result critically hinges on the initial values for structural deficits which are supposed to be 3.2% for Ireland and 1.2% for Portugal. Besides, as illustrated in previous reports, a trade-off arises between the debt objective and the growth objective. Though all

countries but Greece would meet the 60% debt-to-GDP ratios in 2035, it would imply a reduction in growth for countries implementing additional fiscal consolidation and for the euro area. In France, yearly GPD growth rate would be reduced by 0.5 between 2016 and 2020. The yearly decrease in growth rates would amount to -0.6 and -0.4 respectively in Italy and Spain. In countries with fiscal space, growth would be higher resulting from expansionary fiscal policy. Yet, euro area growth rate would decline by 0.2 point in average from 2016 to 2020. After, 2020, growth would be higher due to catching up effect. The average growth would be the same as in table 1 Yet, the average output gap for the whole period would decrease by 0.2 point. Finally, with a yearly -0.5 fiscal efforts in Greece from 2016 to 2035, Greece would not be able to reach a 60% debt-to-GDP ratio. Greece would then need to frontload consolidation with a more negative fiscal stance as expected in the baseline scenario for year 2016 and 2017. This frontloading fiscal policy would yet be more costly in terms of growth and would lead Greece to a deeper deflation.

Another type of simulation has been performed about fiscal space. It has consisted in a fiscal stimulus in Germany and its spillovers to EU partners through trade effects (see Box 3). This stimulus would produce a small increase in EU GDP and would mainly benefit Germany. It remains that this simulation does not take into account the fiscal consolidation efforts of some other countries which are still required to comply with the Stability and Growth Pact or the Fiscal Compact. It does not complement the fiscal stimulus with a reflation policy in Germany, which will be dealt with in section III.

> ### Box 3. Fiscal impulse in Germany
>
> A recent contribution by Blanchard, Erceg and Lindé (2015) develops a two-country model and investigates the potential impact in the EU periphery of a fiscal impulse implemented in the EU core, hence renewing interest in the spillover effects of fiscal policy between countries. The main conclusion of the contribution is that a fiscal impulse in the core would substantially benefit the periphery. The fiscal stimulus would not only help close the unemployment gap in the country implementing the impulse; it would also produce an improvement in the convergence between EU countries, without endangering the sustainability of public finances.
>
> Mixing the motivation of Blanchard, Erceg and Lindé's paper – are there spillover effects of fiscal policies between countries? – and the motivation of the "Juncker Plan" – stimulating EU growth via an impulse on public investment – highlight a generally overlooked impact of public investment: the spillover effects between countries can be very important, and shall be discussed during talks about the rationale of a boost on public investment. To do so, one needs to investigate the impact of a public investment stimulus in a framework encompassing the EU countries and ask whether this stimulus might benefit other EU countries and to what extent. This is what is done in the exercise below.
>
> Model calculations are done with the international macroeconomic model HEIMDAL, for further information on the model properties, see HEIMDAL (2011). The calculations show the effects of a once-and-for-all rise in public

investment in Germany by 1 percent in 2016 (roughly equivalent to a rise of 30 billion €). Figure 3 shows the effects on GDP both in Germany and in EU as a whole. Increasing public investment in Germany would increase GDP in Germany but also in other European countries which trade with Germany and therefore benefit from the increased demand in Germany. Over a two-year period, GDP in Germany would increase by 1.4 percent, while GDP in the EU would by 0.5 percent. It is quite close to Blanchard, Erceg and Lindé (2015)'s main conclusion.

The size of the spillover effects is also shown in Figure 4 where job creations are presented. If Germany increased public investment, it would create jobs not only in Germany but all over the EU. After 2 years, the EU would create 900.000 new jobs as a consequence of the German investment boost. Only about half of them, 460.000 jobs, would be created in Germany while the remaining 440.000 jobs would be in other EU countries. Table 3 reports the effects country by country. Public investment in Germany would create 60.000 new jobs in Spain and Italy. GDP is also boosted all around Europe with extra-growth between 0.1 and 0.4 percent in 2017.

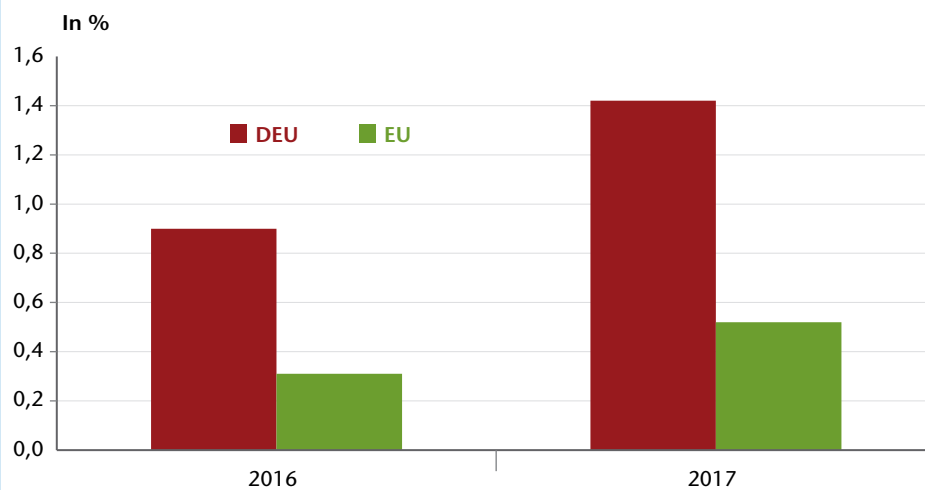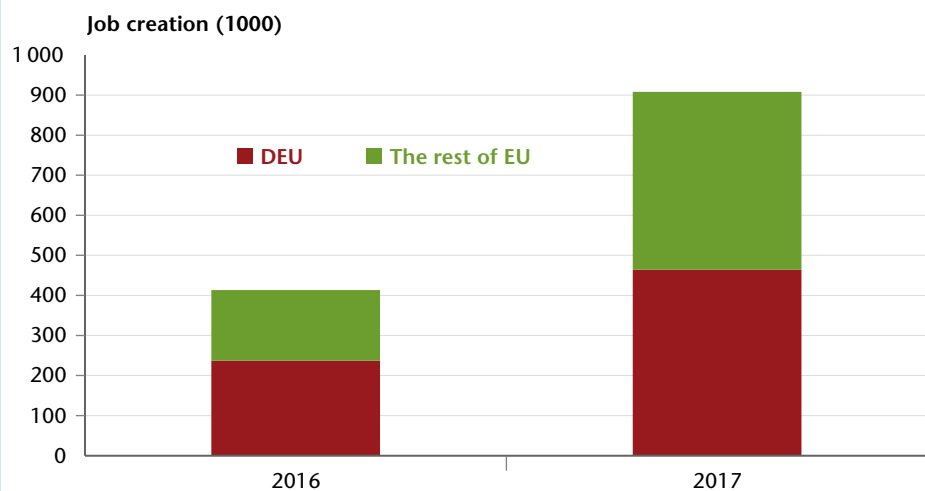### Figure 3. Impact of the German fiscal stimulus on GDP

In %

Figure 4. Job creations after the German fiscal impulse

Job creation (1000)

Note: Accumulated effects.
Source: Calculations with HEIMDAL.

Table 3. Country-specific effects of increased public investment in Germany 2016-2017

	GDP (%)	Job creation (1000)
DEU	1.4	464
Spill-over effects:		
POL	0.3	40
ESP	0.2	35
ITA	0.1	25
FRA	0.1	16
BEL	0.3	9
SWE	0.3	7
DNK	0.2	6
FIN	0.4	4
EA total	**0.5**	**908**

Note: Accumulated effects in 2017.
Source: calculations with HEIMDAL.

It must be acknowledged that projections presented in Table 4 are sensitive to alternative assumptions. Blot *et al.* (2014) notably show that the value of fiscal multipliers and the hysteresis effect play a significant role to gauge the dynamics of public debt. Initial output gap and long-term growth are also critical assumptions. Besides, the debt dynamics also critically hinges on the path of interest rate. In the baseline scenario, it has been supposed that differences between sovereign yields would rapidly vanish (in 2016). Yet, it might be advocated that sovereign risk may now be priced by financial markets so that long-term public interest rate do not converge to the same level across euro area countries. The euro area would be maintained in a situation of financial fragmentation. Thus, the sensitivity of the debt dynamics in each country is analyzed by considering a permanent risk premium for some countries. The risk premium is supposed to be equal to the average spread (to the German sovereign bond yield) observed in 2015. The spread would then equal to 0.2 point for the Netherlands, Finland and Austria, 0.4 point for France and Belgium, 0.8 point for Ireland, 1.4 point for Spain and Italy and 2.2 points for Portugal. The case of Greece certainly remains specific as the country is still under surveillance and has just agreed on the "memorandum of understanding". Access to financial markets is closed and the country's financing may resort on ESM for a sustained period. No shock has then been applied to Greek bonds. We may easily expect that such a shock would rapidly lead Greece to an unsustainable path for public debt. The estimate of the sovereign spread for Greece in 2015 has been above 7 points.

Results of the simulation are reported in Table 4 The higher the shock on interest rate, the more the countries have to implement austerity to reach the 60% debt objectives. Italy, Spain and Portugal would then be the most affected countries. Despite a yearly consolidation amounting to 0.5 point of GDP, Italy would not be able to comply with the fiscal rule on debt, though debt would

decrease significantly. This illustrates the extent to which actual debt dynamics depends on the path of interest rate. If spreads on sovereign yields do not come back to pre-crisis levels, then debt reduction will become more difficult to achieve. In such a fragmentation scenario, the averaged output gap for the euro area would amount to -0.3 against -0.2 in the no fragmentation case.

Table 4. Is it possible to reach a 60% debt-to-GDP ratio with financial fragmentation? (baseline scenario except permanent risk premia and +/- 0.5 fiscal impulses depending on public debt gap *vis-a-vis* 60% target)

	Public debt (*in* % of GDP)		Structural balance (%*in* of GDP)		Cumula-tive fiscal impulse	GDP growth rate (*in* %)		Average output gap	Inflation rate (*in* %)	
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35	(6) 2016-20	(7) 2021-35	(8) 2016-35	(9) 2016-20	(10) 2021-35
DEU	59	60	-1.3	-2.2	3.5	1.6	1.0	0.6	2.1	2.2
FRA	96	60	-0.8	0.3	-4.0	1.5	1.5	-0.4	0.7	1.9
ITA	135	69	0.9	7.5	-9.3	0.5	0.1	-1.8	0.0	1.0
ESP	99	60	-0.9	0.8	-4.1	1.8	1.4	-0.5	0.5	1.8
NLD	63	60	-2.0	-2.1	1.1	2.1	1.2	0.5	1.8	2.2
BEL	97	60	-0.9	-0.1	-1.1	1.9	1.5	0.3	1.0	2.2
PRT	120	60	0.5	2.2	-2.4	1.4	1.1	-0.5	0.2	2.0
IRL	76	60	-1.3	-1.6	3.3	3.0	1.8	0.9	2.4	2.3
GRC	204	142	1.4	5.8	-8.7	1.8	0.7	-3.5	-2.2	0.3
FIN	61	60	-2.0	-2.3	0.2	2.3	1.6	0.1	1.6	2.1
AUT	78	60	-1.3	-1.2	1.0	2.0	1.4	0.2	1.8	2.2
EA	**88**	**62**	**-0.8**	**0.1**	**-1.4**	**1.5**	**1.1**	**-0.3**	**1.1**	**1.9**

Source: iAGS model.

Here, we have illustrated that most euro area countries would comply with fiscal rule and would reach a 60% debt-to-GDP ratio in 2035. Yet, this may imply significant additional fiscal consolidation. For France, fiscal policy would be restrictive until 2022. For Italy and Spain, additional fiscal consolidation would be needed until 2020. Complying with the 3% deficit rule would require the continuation of fiscal consolidation. The euro area would not fall into a third recession, but the consolidation efforts would drag growth, reinforce scarification in labour markets and amplify heterogeneities across Europe. The cost of this strategy would be further amplified in a less favourable scenario of financial fragmentation, which seems yet realistic. Besides, it must be noticed that inflation is supposed to converge to 2% in all euro area countries. External imbalances would not be corrected because price divergence would not.

Dealing with external imbalances, how much adjustment of relative prices do we need?

To assess the need for adjusting the internal exchange rates, we start the analysis by looking at current trade balances in euro area countries. Then we discuss the nominal price adjustments that would be necessary in order to correct these imbalances, both between the Euro Area (EA thereafter) countries and with third party countries. This discussion mainly draws on chapter 5 of the iAGS 2015, updated with new data and new concepts of the balance of payments (BPM6).

External disequilibrium in the Euro Area countries

Since the start of the crisis, the current account of the EA has strongly increased, starting from a current account deficit of •0.7% of GDP in 2009, to a surplus of +3.4% of GDP in 2014 (Figure 5). Almost all countries are in surplus in 2015-Q2, except Belgium, Cyprus, Finland and Greece. This apparent improvement mainly comes from the harsh reduction of current account deficits in southern countries – Spain, Italy, Greece and Portugal – and from the fall in oil price in since 2014-Q3. However, weak internal demand and imports explain a substantial part of the improving trade balances. On the other hand, the shrinkage of exports due to trade partners' internal demand collapse worsens the trade balance.

Figure 5. Current accounts developments in the euro area since 2007

Source: Eurostat.
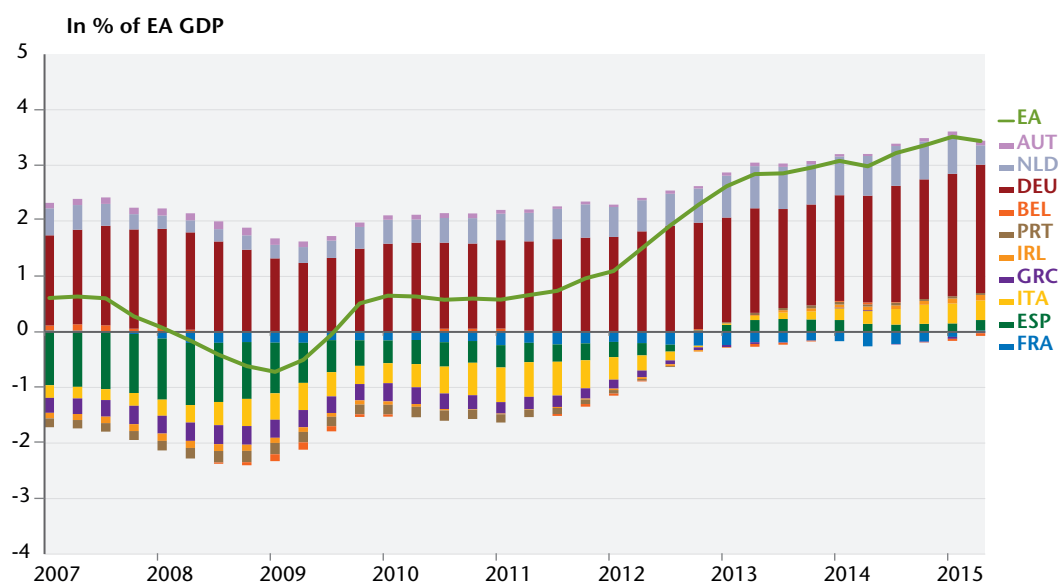
Starting from these remarks, we study current external imbalances in EA countries taking into account the fact that these countries and the world economy have not yet fully recovered from the crisis. The external disequilibrium of a country can be assessed by computing the gap between the structural trade balance and the trade balance that stabilizes the net international investment position (NIIP thereafter) at a desired level expressed as a percent of GDP.[8] The

structural trade balance of a country depends on the output gap of the economy: a negative output gap signals a weak internal demand that diminishes imports. Closing the output gap would then worsen the trade balance of that country. The structural trade balance also depends on the output gaps of trade partners: if they face a negative output gap, they import less from the country. Closing their output gap would then improve the trade balance of the country.

In Table 5 we report the structural trade balances (STB thereafter) for eleven EA countries (see also chapter 5 of iAGS 2015 for computation details). STB are generally lower than current trade balances, since almost all EA countries face a more negative output gap than that of their partners. Greece has an actual trade balance which is moderately negative in 2014 (-2.1% of GDP), but its STB amounts to -8.3% of GDP due to its strongly negative output gap (-12.6% of GDP). On the contrary, Germany has a higher STB (+7.5% of GDP) than its trade balance (+6.5% of GDP) in 2014, since its output gap is nearly closed while that of its main trading partners is on average wider.

Table 5. Trade balance gap for 11 euro area countries in 2014 (% of GDP)

	Net international investment position	Current account	Trade balance	Output gap (*in %*)	Potential growth (*in %*)	Weighted output gap of trade partners (*in %*)	Structural trade balance	Structural trade balance target*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
AUT	2	2.0	3.7	-1.5	1.5	-1.6	3.7	1.7
BEL	57	0.1	0.3	-1.2	2.0	-2.2	1.1	0.7
FIN	-1	-0.9	-0.3	-2.8	2.0	-1.1	-0.6	0.6
FRA	-20	-0.9	-0.8	-2.3	1.7	-1.8	-1.3	0.0
DEU	42	7.4	6.5	-0.9	1.1	-1.8	7.5	-0.8
GRC	-124	-2.1	-2.2	-12.6	1.5	-1.9	-8.3	-0.7
IRL	-107	3.7	18.7	-3.6	2.0	-1.7	18.2	13.9
ITA	-28	1.9	3.0	-6.1	0.9	-1.4	-1.1	1.1
NLD	61	10.7	11.5	-2.7	1.8	-1.6	12.2	1.3
PRT	-113	0.6	1.3	-6.3	1.6	-2.7	-3.0	0.0
ESP	-94	1.0	2.4	-6.4	1.7	-2.1	-2.6	0.7

(7) = (3) - Θ x (6) + Ω x (4); (8) = [(5) - r] x (1)- [(2) - (3)]
* The structural trade balance target is the structural trade balance that is compatible with NIIP stability at its 2014 level. We assume that the gap between the current account and the trade balance (revenues, current transfers, the capital account and the financial account) is constant. We assume r = 1%. Θ and Ω are sensitivity estimates of the trade balance to the country's output gap and to the weighted output gap of trade partners (see annex for details).
Sources: OECD Economic Outlook 97, IMF WEO October 2015, Oxford Economics, IMF International Financial Statistics, Eurostat, iAGS calculations.

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8.   If a country runs trade deficits, it must (normally) borrow from abroad in order to finance them. The balance between its foreign assets and its liabilities shifts in favour of the latter. If this shift is larger than the growth of nominal GDP then the NIIP declines as a % of GDP. Clearly, given that a negative NIIP (normally) implies an outflow of interest, dividend and other payments, which burden the current account, a persistent rise in the NIIP is not sustainable. Although the constraints are not as binding in the case of surpluses, it is usually inadvisable to pile up increasing net foreign assets as this creates imbalances that can lead to capital losses.

We also report the STB target, *i.e.* the STB compatible with a stable NIIP. The STB target is computed as the current NIIP adjusted by the gap between the potential growth rate and the long run real interest rate, and corrected for the gap between the current account and the trade balance. Defining the target of the external adjustment of EA countries is a critical task. It is clear that an ever increasing or decreasing external position is not sustainable over the long run, and stabilizing the NIIP is therefore a necessary condition. Here, for sake of simplicity we stabilise the NIIP in the long run at its *current* level.

The gap between the STB and its target reveals external disequilibria. Some countries need to strongly increase their STB to reach the target. It concerns first and foremost Greece: a strong improvement in Greek competitiveness is needed to improve the trade balance in the long run and to stabilise the NIIP. Finland, France, Italy, Portugal and Spain are concerned to a lesser extent. Conversely, Germany and the Netherlands, which already have the highest NIIP, should reduce their STB, since the current ones imply still increasing NIIP.

Adjusting nominal prices in the euro area

Having quantified the disequilibria, we now turn to the study of the means by which these disequilibria could be reduced. Our analysis concentrates on price competitiveness, both on domestic and foreign markets. The critical parameters that we use in our quantitative assessment are therefore trade elasticities to exports and import prices. We choose to abstract from non-price competitiveness, because of the lack of widely available and well established index embodying that concept.

In order to properly think about the needed nominal adjustments, one cannot analyze the imbalance of each EA country taken in isolation, as if it were a small open economy, because trade flows are quite significant between EA countries. An analysis of the *simultaneous* nominal adjustment of all EA countries is needed. This task is achieved using the multi-country model presented in chapter 5 of iAGS 2015, with some minor improvements.[9]

We therefore compute the nominal price adjustments that should be made simultaneously by all EA countries in order to correct their individual external imbalances. In this framework, a country is considered to have reached its external balance if its STB is equal to its STB target. Compared to the previous section, we use a slightly different definition of the STB target: it is the STB that stabilizes the NIIP at its current level, *or at -35% of GDP if the current NIIP is below this threshold.* The •35% threshold corresponds to the lower limit incorporated in the scoreboard of the Macroeconomic Imbalance Procedure (MIP) that all member states are supposed to respect (the scoreboard and its underlying economic legitimacy are discussed in the appendix). As of 2014, four countries were beyond the limit: Spain (-94%), Greece (-124%), Ireland (-107%) and

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9. Compared to the 2015 edition, the following modifications were applied to the model:
   — data for trade and financial flows have been constructed using IMF's BPM6 methodology;
   — trade weight matrix for imports/exports has been updated with 2013 data;
   — elasticities of imports to the domestic output gap have been estimated (they were previously set to unity).

Portugal (-113%). Their STB target in our quantitative exercise therefore corresponds to an improvement of their NIIP towards the -35% level, followed by a stabilization at that level.

Analogous to the debt analysis, we show in Table 6 the nominal adjustments required by all countries to reach their NIIP target at a 20-year horizon. The calculation also takes into account the need for the *internal* rebalancing of all countries, because it is based on structural trade balances, *i.e.* balances reached when domestic and foreign countries have closed their output gap. The computation is done under the hypothesis that prices of competitors outside the EA remain constant when expressed in euros.

Table 6. Price adjustments needed to correct external imbalances (as of end of 2014)

	NIIP target (*in % of GDP*)	REER adjustment (*in %*)	VA price adjustment (*in %*)	VA price adjustment relative to Germany (*in %*)
AUT	2.2	+17.4	+31.5	+1.4
BEL	57.2	-10.2	-0.4	-23.2
DEU	42.3	+23.5	+29.7	0.0
ESP	-35.0	-0.4	+5.7	-18.5
FIN	-0.7	-7.4	-2.3	-24.7
FRA	-19.5	-2.5	+4.9	-19.1
GRC	-35.0	-25.8	-22.0	-39.8
IRL	-35.0	+5.6	+10.4	-14.9
ITA	-27.9	+10.1	+16.8	-9.9
NLD	60.8	+22.9	+30.8	+0.8
PRT	-35.0	-4.6	+2.0	-21.4

Source: iAGS calculation.

As expected, surplus countries (Germany, Austria, the Netherlands) must achieve a substantial real exchange rate appreciation to reach their external equilibrium; on the other hand, Greece, and to a lesser extent Belgium and Finland, must achieve a significant real depreciation.

Turning to the required adjustments in terms of value added prices, the striking fact is that almost all countries are expected by the simulation to increase their prices. Only Greece, Belgium and Finland should decrease their prices, and by a rather low amount. This reflects the fact that the area on an aggregate level has a substantial current account surplus, which must be reduced in order to achieve a stable NIIP for the area as a whole. Under this scenario, the current account of the EA would diminish by 2.8% of GDP, resulting in a current account with a small surplus of 0.4% of GDP, which sustains an aggregate NIIP of 4.6% of GDP.

Of course, instead of increasing VA prices, another way of achieving the same aggregate objective would be to have the euro appreciate. There is of course a perfect substitutability between nominal price increases and euro appreciation: a 10% appreciation of the nominal effective exchange rate of the euro would decrease by 10 percentage points the required VA price increases in all EA countries.

Whether it is done through an average nominal price increase or through a nominal appreciation of the euro, the external rebalancing of the EA as a whole does not however automatically lead to the correction of disequilibria *within* the EA. In order to disentangle the two dimensions, and to isolate the second one, the last column of Table 6 reports the required nominal adjustments relative to Germany.

Several groups of countries emerge through this exercise. Austria and the Netherlands are almost on the same level as Germany, and need no relative adjustment. On the other extreme, Greece needs to depreciate by almost 40% relative to Germany, despite all the sacrifices already made. Between these two polar opposites, there is a large group of countries requiring a depreciation of about 20% relative to Germany, which includes France, Spain, Portugal, Belgium, and Finland. Note that Italy is in a slightly better position (only 10% relative depreciation required), because of its current account in surplus (1.9% of GDP in 2014) and its relatively favourable NIIP.

Box 4. External imbalances adjustments since 2008

Our analysis shows that there are still substantial trade balance imbalances and nominal disadjustments in the EA by the end of 2014. But is the situation today better than the one prevailing at the onset of the crisis? Did some countries adjust more than others?

Table 7 shows the evolution of the STB between 2008 and 2014. Some countries with a high STB in 2008, like Austria and Finland, have decreased their surplus since the beginning of the crisis, while some countries with high deficits have reduced them (Portugal and Spain). Intra-EMU trade figures also attest for decreasing imbalances.

Table 7. Structural trade balance adjustment since 2008

In % of GDP

	Structural trade balance		Structural trade balance target	Variation 2008-2014
	2008	2014		
	(9)	(7)	(8)	(10) = (7) – (9)
AUT	5.3	3.7	1.7	-1.7
BEL	-1.8	1.1	0.7	2.9
FIN	4.1	-0.6	0.6	-4.6
FRA	-2.3	-1.3	0.0	1.0
DEU	5.6	7.5	-0.8	2.0
GRC	-7.5	-8.3	-0.7	-0.8
IRL	8.7	18.2	13.9	9.5
ITA	-1.9	-1.1	1.1	0.7
NLD	6.7	12.2	1.3	5.5
PRT	-11.0	-3.0	0.0	8.0
ESP	-3.1	-2.6	0.7	0.5

Sources: OECD Economic Outlook 98, IMF WEO October 2014, Oxford Economics, IMF International Financial Statistics, Eurostat, iAGS calculations.

Despite these positive developments, some challenges remain. The strong compression of internal demand in Greece has had no significant effect on the competitiveness of the country until now. More generally, overshooting and increasing imbalances of 6 countries from 11 stresses that macroeconomic policies conducted during the crisis have not been well-designed to correct external imbalances among EA countries, in the sense that they did not favour stabilising NIIP.

The tendency to a reduction of imbalances is also apparent when looking at nominal adjustments. By applying the same methodology as in the previous section on historical data for NIIP, current account and output gaps, one can reconstruct the historical path of nominal adjustments within the EA. The result is visible on Table 8, which displays the position of each country relative to Germany since 2008.

The general picture is clearly that nominal adjustments within the EA have substantially diminished since 2008. This is especially apparent for countries like Spain, Greece, Italy and Portugal which dramatically reduced their nominal overvaluation with respect to Germany. Ireland and Belgium did a more modest improvement. Symmetrically, Austria significantly reduced its nominal undervaluation. France essentially kept stable its 20% overvaluation during the period, while the Netherlands stayed almost on par with Germany during the whole period. The only country to have diverged is Finland, which was on par with Germany in 2008, while it is now overvalued by nearly 25%.

Table 8. Nominal disadjustments with respect to Germany (2008-2014)

	2008	2009	2010	2011	2012	2013	2014
AUT	20.2	15.9	13.3	1.0	2.8	6.5	1.4
BEL	-32.9	-29.9	-15.7	-30.7	-23.8	-22.2	-23.2
DEU	0	0	0	0	0	0	0
ESP	-46.8	-32.8	-30.6	-29.9	-21.9	-15.3	-18.5
FIN	4.8	-1.2	-7.9	-29.0	-30.7	-28.4	-24.7
FRA	-18.9	-16.1	-16.6	-19.1	-19.8	-15.2	-19.1
GRC	-89.1	-87.9	-80.8	-73.0	-48.5	-39.7	-39.8
IRL	-26.8	-28.7	-25.6	-26.9	-28.7	-19.8	-14.9
ITA	-29.2	-25.2	-32.7	-31.9	-19.9	-12.0	-9.9
NDL	•4.5	6.1	6.2	4.4	5.1	6.8	0.8
PRT	-68.5	-65.3	-59.2	-43.1	-30.9	-17.1	-21.4

Source: iAGS calculation.

This tendency to external rebalancing has been due to wage adjustments – bringing down imports and therefore rebalancing the CA. The social and economic costs of this strategy have however been quite high (see Chapter 5 of iAGS 2015 report for a detailed discussion).

3. Illustrating incompatibilities

In the previous section, we have illustrated the adjustments, which are needed for countries either to comply with debt objectives or to deal with current account imbalances. On the one hand, they would imply additional fiscal consolidation for some countries and, on the other hand, some counties would also need to adjust relative prices. It should be noticed that countries, which are supposed to implement further consolidation are generally those that will need to adjust relative prices. This is notably the case for: France, Italy, Spain, Belgium and Greece. Yet, these objectives might not be compatible. Besides, reduction of public debt to reach the 60% debt-to-GDP ratio would, as illustrated in tables 1 and 2, reduce growth and then curb recovery. The adjustment of prices would also slow down the reduction of public debt, forcing Member States to increase fiscal consolidation further, weighing down on growth. Euro area countries may then try to square the circle and be constrained to forsake one of the 3 objectives (economic growth, external and public balances). This situation can be illustrated through simulations where countries simultaneously endeavour to bring back debt to 60% and to adjust relative prices.

It must be emphasized that these adjustments may be cooperative or not. They may be cooperative if countries with fiscal space implement positive impulses and if countries with current account surplus accept to overshoot the inflation target (so that inflation rate for the euro area remains close to 2%). The adjustment may also be non-cooperative if fiscal space is not used and if the price adjustment is asymmetric; with surplus countries unwilling to run reflation policies and still targeting a 2% inflation rate so that, for the euro area as a whole, inflation rate would undershoot the 2% target.

In Table 9, the relative price adjustment, needed to achieve a correction of current account imbalances is computed according to two alternative assumptions: symmetric or asymmetric adjustment. The latter (asymmetric) adjustment stems from the computations which are reported in section 2.2 of this Chapter. As the required adjustment is computed relatively to German prices, it is easy to determine the relative decrease in inflation which is required from each country provided inflation is itself stable in Germany. Inflation in France would for example need to be 1.1 point below German inflation to reach an adjustment of 21.2% over 20 years. Thereafter, it is supposed that for each country, we set heterogeneous inflation targets so that inflation and expected inflation converge to the new target, which is compatible with the relative price adjustment. When the adjustment is symmetric, the inflation target increases in Germany, Italy, the Netherlands and in Austria. The relative adjustment is determined so that euro area average inflation target is still equal to 2%, the ECB target. In the asymmetric scenario, inflation target for the euro area is reduced by 0.6 point. We assume that the ECB adopts this new target.

Table 9. Price adjustments

	DEU	FRA	ITA	ESP	NLD	BEL	GRC	PRT	IRL	AUT	FIN	EA
Symmetric	0.6	-0.5	0.1	-0.5	0.6	-0.7	-1.9	-0.6	-0.3	0.7	-0.8	**0**
Asymmetric	0	-1.1	-0.5	-1.0	0.0	-1.3	-2.5	-1.2	-0.8	0.1	-1.4	**-0.6**

Source: iAGS calculation.

First, we analyse the effect of relative price adjustment on debt dynamics without introducing constraints on the achievement of the debt objective within 20 years at the latest. This scenario illustrates the sensitivity of public debt to the relative price adjustment. Results are shown in Table 10 where a symmetric price adjustment is adopted. Simulations suggest that a long-lasting slow-down of inflation in France, Spain, Belgium, Greece and Portugal would be followed by an increase in public debt in 2035 (compared to table 1) by 8 points for France and Spain, 13 points for Belgium, 11 points for Portugal and 63 points for Greece. The convergence hypothesis on nominal interest rates produces a gap between, on the one hand, national nominal interest rates which converge towards 3.5%[10] for all countries, and on the other hand, the nominal GDP growth rate, which is adjusted downward (respectively upward) when inflation is supposed to decline (respectively to increase). In this scenario, inflation would increase above the 2% target in Germany, Netherlands and Austria where it would stand at 2.6%. This first simulation stresses that if euro area members aim at reducing current account imbalances, it may be detrimental to public debt and then to their ability to comply with the fiscal rules. Thereafter, we show that these two objectives may be reached but at the price of additional consolidation and to the detriment of recovery.

Table 10. Baseline scenario with (symmetric) price adjustments

	Public debt (*in % of GDP*)		Structural balance (*in % of GDP*)		Cumulative fiscal impulse	Average output gap	Inflation rate (*in %*)	
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-2035	(6) 2016-2035	(7) 2016-2020	(8) 2021-2035
DEU	56	19	0.8	1.6	0.7	0.2	2.2	2.6
FRA	96	105	-2.8	-3.8	-1.1	0.0	0.9	1.6
ITA	122	79	0.3	1.2	-0.2	-0.3	0.8	2.0
ESP	98	97	-2.4	-2.9	-0.7	0.0	0.8	1.6
NLD	65	55	-1.4	-1.6	-0.1	0.0	1.6	2.6
BEL	105	100	-2.1	-2.6	-1.0	0.0	0.4	1.3
PRT	113	60	0.9	2.1	-1.2	-0.3	0.4	1.4
IRL	77	24	0.9	2.5	-1.2	0.4	1.6	1.8
GRC	189	171	0.1	-1.1	-1.4	-0.8	-2.1	0.1
FIN	67	85	-2.5	-3.6	-0.6	-0.3	0.7	1.2
AUT	81	60	-1.3	-1.2	0.7	-0.3	1.7	2.6
EA	**87**	**65**	**-0.8**	**-0.7**	**-0.3**	**0.0**	**1.3**	**2.0**

Source: iAGS model

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10. It should be reminded that such a scenario, where sovereign yields are very close for all EMU countries prevailed before the crisis.

In the former scenario, relative prices are adjusted but not all countries comply with the fiscal rule since debt is above the 60% debt-to-GDP ratio for France, Italy, Spain, Belgium, Greece and Finland. For those countries, we implement a yearly fiscal consolidation of 0.5 point until public debt reaches 60% in 2035. Yet, two cases deserve attention. In the first one, we suppose that a cooperative solution is implemented. Countries for which debt would decrease below 60% by 2035 implement expansionary fiscal policies. This would mainly concern Germany and Ireland since debt is close or equal to 60%. Besides, in the cooperative solution the price adjustment is symmetric and surplus countries accept higher inflation during the 20-year adjustment period so that for the euro area as a whole, the inflation rate remains compatible with a 2% target as illustrated in Table 11 Compared to table 1, France, Spain, Belgium, Greece and Finland would implement more consolidation. Fiscal impulses would be negative until 2025 for France and 2021 in Spain. For Greece, despite -0.5 point impulses from 2016 to 2035[11], public debt would be far from the objective and Greece would be in deflation during all the period. Though it must be recognized that Greece is a special case, it suggests that debt reduction and current account imbalances might not be compatible objectives. France, Italy, Spain and Finland would also be threatened by deflation. In France, inflation rate would not exceed 1% from 2016 to 2026 whereas Italy and Spain would register a short period of deflation. For the euro area, the yearly average output gap would be -0.2 lower. It would

Table 11. Correction of fiscal and external imbalances in the cooperative (symmetric price adjustment) case

	Public debt (*in % of GDP*)		Structural balance (*in % of GDP*)		Cumulative fiscal impulse	Average output gap	Inflation rate (*in %*)		Current account adjustment
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35	(6) 2016-35	(7) 2016-20	(8) 2021-35	(9) 2015-35
DEU	58	60	-1.3	-2.5	3.8	0.5	2.5	2.8	-3.1
FRA	100	60	-0.8	1.5	-5.5	-0.8	0.3	1.2	2.0
ITA	127	60	1.7	3.2	-1.6	-0.6	0.2	2.0	-2.9
ESP	98	60	-0.2	0.8	-3.2	-0.4	0.2	1.4	-0.4
NLD	63	60	-2.0	-2.4	1.1	0.3	2.1	2.7	-2.7
BEL	102	60	0.3	0.9	-2.6	-0.1	0.2	1.3	3.7
PRT	109	60	0.7	1.7	0.1	0.0	0.8	1.5	-3.2
IRL	76	60	-1.0	-1.3	3.2	0.8	2.1	2.0	-0.9
GRC	221	245	1.0	2.5	-8.7	-3.6	-3.6	-1.6	9.8
FIN	67	60	-1.0	-1.3	-1.6	-0.5	0.2	1.2	3.0
AUT	76	60	-1.6	-1.7	1.5	0.2	2.4	2.8	-2.9
EA	**88**	**61**	**-0.5**	**-0.4**	**-0.6**	**-0.2**	**1.1**	**1.9**	**-1.0**

Note: The adjustment of current account is computed as the change in the current account between 2015 and 2035.
Source: iAGS model

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11. The cumulated fiscal impulses from 2016 to 2035 amounts to -10 points.

notably remain negative as long as national fiscal impulses are negative. In this scenario, inflation would be significantly higher in Germany and in the Netherlands: 2.8% and 2.7% respectively. In the euro area, inflation would increase from 0.2% in 2015 to 1.8% in 2022. The 2% target would be undershot for a long period of time. Monetary policy would then have to remain expansionary. Finally, it must be stressed that, from 2015 to 2035, the euro area current account surplus would decline by 1 point.

Alternatively, we may consider a scenario where fiscal space, for countries with debt below 60% in table 11, is not used and where the adjustment in relative prices is asymmetric. Fiscal policy is supposed to be neutral from 2016 onwards in Germany, Netherlands, Portugal, Ireland and Austria and the target for inflation rate is capped at 2% in Germany, Netherlands and Austria. Consequently, the required decrease in the inflation rate is larger for the other countries in order to reduce external disequilibria as shown in table 9 Countries that need to implement negative fiscal impulses to reach a 60% debt-to-GDP ratio do not benefit from the positive spillover effects resulting from expansion in the countries having fiscal space. Moreover, in the absence of cooperation between EMU countries, constraints (fiscal and current account) become more binding bringing adjusting countries to reduce further inflation rate and to increase further fiscal consolidation to cope with the different objectives.

Fiscal impulse for the euro area as whole is now much more restrictive (-2.9 points instead of -0.6 point) as positive impulse for Germany is reduced by 3.4 points (Table 12) and negative impulse in France is amplified (from -5.5 points to -10 points). Negative impulse also increases for Italy (-1.2 point) and Spain (-0.5 point). Besides, inflation in the euro area undershoots the 2% target and several countries would suffer from deflation. This is the case until 2035 for France and Greece, two countries that would also be unable to reach a 60% debt-to-GDP ratio. As a result, the average output gap for the euro area would be more negative than in the former cooperative solution. Therefore, this scenario clearly highlights the need for a cooperative adjustment and the risk that a trade-off between debt, current account and growth objectives will emerge. Here, we have considered two instruments (fiscal impulse and relative prices) to cope with the debt objective and current account adjustment. For the euro area as a whole, monetary policy would still be expansionary but it would only partially cushion the negative impacts of consolidation on growth. Consequently, the growth objective would not be reached, recovery would be delayed[12] and euro area would enter into secular stagnation, characterized by low inflation (and even deflation for some countries) and a period of low growth.

Finally, results emphasize that the euro area current account would improve in the non-cooperative solution (by 0.4 point) whereas it decreased by 1 point in the cooperative solution. As long as the ECB will pursue the QE programme, the risk of a euro appreciation will be limited. Actually, under the baseline scenario, we expect the euro-dollar exchange rate to decline to 1.05 by 2017. But if the

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12. Growth performance would mainly decline in the medium-term as fiscal consolidation period is extended.

current account of the euro area remains in surplus, the adjustment might be realized through an appreciation. In such a case, growth would be reduced by the negative shock on competitiveness.

Table 12. Correction of fiscal and external imbalances in the non-cooperative (asymmetric price adjustment) case

	Public debt (*in % of GDP*)		Structural balance (*in % of GDP*)		Cumulative fiscal impulse	Average output gap	Inflation rate (*in %*)		Current account adjustment
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35	(6) 2016-35	(7) 2016-20	(8) 2021-35	(9) 2015-35
DEU	54	12	1.1	2.1	0.4	0.4	1.9	2.2	-1.9
FRA	102	65	-0.8	4.8	-10.0	-1.5	-0.2	0.0	5.4
ITA	131	60	2.2	4.2	-2.8	-0.8	-0.3	1.3	-1.8
ESP	100	60	-0.1	1.4	-3.7	-0.4	-0.1	0.8	-0.1
NLD	61	41	-0.8	-0.3	-0.2	0.4	1.5	2.3	-1.9
BEL	102	60	0.5	1.3	-2.6	0.1	-0.2	0.8	3.9
PRT	112	54	1.3	2.8	-0.8	0.0	0.1	1.0	-2.9
IRL	74	13	1.4	3.3	0.0	0.7	1.5	1.5	0.5
GRC	224	245	1.1	3.4	-8.7	-3.2	-4.0	-1.9	9.5
FIN	67	60	-1.1	-1.2	-1.3	-0.2	-0.1	0.7	3.5
AUT	77	46	-0.7	0.0	0.4	0.2	1.7	2.3	-2.5
EA	**88**	**42**	**0.5**	**2.4**	**-2.9**	**-0.4**	**0.6**	**1.2**	**0.4**

Note: The adjustment of current account is computed as the change in the current account between 2015 and 2035.
Source: iAGS model

We illustrate this latter possibility by considering two scenarios. In the first one (table 11), the appreciation does not exceed 25% and the euro rises to 1.30 from 2018 to 2030 and then stabilizes at this higher level. A stronger appreciation is considered in the second scenario (Table 13) where the euro rises to 1.5. The start of the adjustment of the exchange rate appreciation is supposed to coincide with the end of the QE programme implemented by the ECB. It might yet be stressed that conventional monetary policy would still be expansionary because the euro area output gap would still be negative and inflation would still be low (0.6% on average for the euro area between 2016 and 2020). Yet, the appreciation of the euro would make the situation of the euro area worse in terms of inflation and growth. If the euro increased to 1.3 or to 1.5, inflation in the euro area would stand at 0.1% between 2016 and 2020. France, Italy, Spain, Belgium, Portugal, Finland and Greece would be in deflation. Growth would be reduced through the negative effect of the appreciation and through the need to amplify fiscal consolidation. For the euro area as a whole, the cumulated consolidation would increase by nearly 1 point.

These results urge the need for a cooperative solution strong enough to avoid the risk of an appreciation. Cooperation would indeed make the adjustment softer, increase growth in the euro area and reduce the risk of deflation. It involves that countries fully take advantage of their fiscal rooms of manoeuvre

when they have some fiscal space. It also requires surplus countries to accept more inflation and to revise their national inflation target upward. Yet, it remains to stress that even a cooperative solution would only be a second-best: as we showed, trade-offs between interdependent objectives (debt, current account and growth) will still arise.

Table 13. Correction of fiscal and external imbalances in the non-cooperative case and with appreciation of the euro (up to 1.3)

	Public debt (% of GDP)		Structural balance (% of GDP)		Cumulative fiscal impulse	Average output gap	Inflation rate (%)		Current account adjustment
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35	(6) 2016-35	(7) 2016-20	(8) 2021-35	(9) 2035-15
DEU	56	14	1.2	2.0	0.4	0.3	1.4	2.3	-3.1
FRA	105	70	-0.6	4.5	-10.0	-1.7	-0.5	0.0	5.0
ITA	138	63	2.2	8.5	-9.3	-2.1	-0.8	0.4	0.9
ESP	102	58	0.0	1.9	-4.5	-0.7	-0.5	0.7	-0.7
NLD	63	35	-0.7	0.1	-0.2	0.5	0.8	2.6	-3.8
BEL	103	60	0.0	0.9	-1.7	0.3	-0.8	1.1	2.4
PRT	112	48	1.6	3.1	-0.8	0.0	-0.1	1.0	-3.0
IRL	78	12	1.5	3.4	0.0	0.8	0.3	1.8	-2.0
GRC	229	242	1.1	3.8	-8.7	-3.2	-4.3	-1.9	8.3
FIN	67	60	-1.2	-1.4	-0.9	-0.1	-0.5	0.9	1.6
AUT	77	40	-0.5	0.4	0.4	0.3	1.3	2.5	-3.9
EA	**91**	**42**	**0.6**	**2.9**	**-3.8**	**-0.6**	**0.1**	**1.2**	**0.0**

Note: The adjustment of current account is computed as the change in the current account between 2015 and 2035.
Source: iAGS model

Table 14. Correction of fiscal and external imbalances in the non-cooperative case and with appreciation of the euro (up to 1.5)

	Public debt (*in % of GDP*)		Structural balance (*in % of GDP*)		Cumula-tive fiscal impulse	Average output gap	Inflation rate (*in %*)		Current account adjustment
	(1) 2020	(2) 2035	(3) 2020	(4) 2035	(5) 2015-35	(6) 2016-35	(7) 2016-20	(8) 2021-35	(9) 2015-35
DEU	56	17	6,4	3,4	0,4	0,2	1,4	2,2	-4,5
FRA	104	76	0,5	3,3	-10,0	-1,9	-0,5	-0,2	4,2
ITA	137	70	1,4	2,1	-9,3	-2,3	-0,8	0,3	-0,1
ESP	101	60	-0,4	-0,7	-4,2	-0,7	-0,4	0,7	-1,9
NLD	62	36	8,3	4,7	-0,2	0,4	0,8	2,5	-5,3
BEL	102	60	2,1	3,3	-1,6	0,3	-0,7	1,1	1,2
PRT	111	46	-3,2	-2,7	-0,8	0,0	-0,1	1,0	-3,9
IRL	78	14	-0,1	-0,7	0,0	0,6	0,3	1,8	-3,9
GRC	228	249	-2,4	5,6	-8,7	-3,4	-4,3	-2,0	7,2
FIN	68	60	-1,1	-0,4	-1,3	-0,3	-0,6	0,8	0,3
AUT	76	40	-0,2	-2,6	0,4	0,3	1,4	2,5	-5,0
EA	**90**	**45**	**-3,2**	**-2,7**	**-3,7**	**-0,8**	**0,1**	**1,1**	**-1.2**

Note: The adjustment of current account is computed as the change in the current account between 2015 and 2035.
Source: iAGS model

4. Concluding remarks

We show in this chapter 3 that the current account surplus increases the links between EA economies. It is well known that openness of trade in a fixed currency framework is important (we have used this argument in previous iAGS reports). The scenario of an appreciating Euro due to excessive current account surpluses and normalisation of monetary policy in the EA will depress external demand in all EA countries, regardless of their current account position. Imbalances displaced outside of the Euro area will then reappear inside the EA. The magnitude of this channel (according to our simulations) makes the responsibility of EA countries with high surpluses (e.g. Germany) substantial. The existence of these spillover effects urges the use of available fiscal space. Even so, solutions must primarily be sought in the area of coordinated macroeconomic policy. Structural reforms can, in principle, improve productivity growth rates or raise employment rates, but a deflationary environment with large negative output gaps is not a propitious context in which their positive impacts make themselves felt; some so-called reforms may initially intensify deflationary pressures or weaken demand, exacerbating the situation if macro policy cannot offset.

TECHNICAL APPENDIX
Short description of the iAGS model and main hypotheses for the baseline simulations

The simulations describing debt dynamics, inflation and the output gap for the main euro area countries are realized with a small scale reduced-form model. The key features of the model are the following:

— It represents 11 euro area countries: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain.

— On the demand side, the output is determined by fiscal policy, interest rate, which are directly linked to the common monetary policy, external demand (a channel for intra EU interdependencies), real effective exchange rate and exogenous shocks on the output gap (the gap between actual and potential GDP). The equation is written as an error-correction model. Nominal exchange rate is exogenous.

— The size of fiscal multipliers is state-dependent and it changes with the level of the output gap.

— External demand is modelled using a bilateral trade matrix representing interdependencies between countries. The trade matrix is also used as a basis for imbalances analysis.

— Inflation is determined by a generalized Phillips curve relating current and expected inflation to the output gap, imported inflation and other exogenous shocks. Expectations can be modelled as adaptive (backward-looking) or rational (forward-looking).

— Inflation expectations are supposed to be anchored to a target. In the baseline scenario, the target corresponds to the ECB official 2% target. When,

relative price adjustment are analysed, national inflation targets are different and set according to the needed adjustment.

— Monetary policy is described by a Taylor rule. The ineffectiveness of monetary policy is made possible when the economy hits the zero lower bound (ZLB).

— The long- term public rate for Germany is considered risk free, and long-term public rates for other countries include a risk premium that is set exogenously. The risk premium is equal to zero in the baseline scenario and may be positive when we consider a persistent financial fragmentation of the sovereign bond market in the euro area.

— Due to hysteresis effect, the output level may be permanently affected by a negative demand shock. Trend growth of the potential output will always converge to an exogenously set path.

— The public balance is the sum of interest payments, cyclically-adjusted balance and cyclical components. Fiscal stance (impulse) is measured by the change in cyclically-adjusted balance.

To sum up, the model may boil down to 6 main equations describing demand, potential output, inflation, expected inflation, the short term interest rate set by the central bank and long-term interest as a weighted sum of future short-term interest rates.

The demand equation is the driven by real interest rates, real effective exchange rate, external demand and fiscal policy, which is captured here by *EFI*, the effective fiscal impulses (with a distinction based on the composition of the fiscal stance between expenditures and taxes), cumulating past and current *ex ante* fiscal impulses on public expenditures and taxes.[13] R is the long term real interest rate and $\bar{R}$ is the long run equilibrium value of interest rate. *tcer* is the real effective exchange rate and $\overline{tcer}$ is the long run equilibrium real effective exchange rate. The term $(\beta_t.ad)$ stands for the impact of external demand by trade partners. The dynamics of the current level of output is then represented by an error correction equation:

(1) $d(\tilde{y}_t) = \lambda\big(-EFI_{t-1}^g - EFI_{t-1}^t - \delta_{1,l}.(R_{t-1} - \bar{R}_{t-1}) - \delta_{2,l}.(tcer_{t-1} - \overline{tcer_{t-1}}) -$
$\beta_l.ad_{t-1}\big) + d\big(EFI_t^g\big) + d\big(EFI_t^t\big) + \delta_{1,c}.d(R_t - \bar{R}_t + \delta_{2,c}.d(tcer_t - \overline{tcer_t}) + \beta_c.d(ad_t)$

The dynamics of the potential output is described by the following equation:

(2) $y_t^* = y_{t-1}^* + H.y_t + \varepsilon_t^s$

where H is an hysteresis parameter and ε_t^s is an exogenous shock on aggregate supply. The output gap is then written as the difference between $\tilde{y}_t$ and $y*_t$. GDP prices are set according to a hybrid Phillips curve where inflation depends on past inflation, expected inflation, output gap, and imported inflation:

(3) $\pi_t = \eta_1.\pi_{t-1} + (1 - \eta_1).E\pi_{t+1} + \eta_2.y_t + \eta_3.\sum_j w_{m,j,c}\big(\pi_t^f\big) + \varepsilon_t^\pi$

Expectations are supposed to be anchored on a target, which is equal to 2% in the baseline case.

(4) $E\pi_{t+1} = \pi_t + \lambda_a.(\pi_t - \pi^{cible})$

where $\pi^{cible} = 2 + \epsilon^{cible}$

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13. It is an *ex ante* multiplier in the sense that it does not take into account monetary policy effects and spillover effects from external trade on GDP.

Actually, a distinction is made between short-term (or one-period ahead fore-cast) entering the Philipps curve equation (3) and long-term forecasts, which is used for the long term real interest rate. For one-period ahead forecast (π_t^e), we rely on backward-looking expectations as represented by (4), and we assume that inflation is expected to converge to the target. To account for the adjustment in relative prices, we introduce a deviation for each country in the target. For financial markets, long-run expected inflation is modelled as the discounted sum of forward-looking inflation rates, in a similar fashion as nominal long-term rates, in order to keep expectations consistent at this (more than one-year ahead) horizon.

Monetary policy is described through a non-linear Taylor rule where, under non-ZLB circumstances, the short term interest rate moves with the gap between euro area inflation π_t^{EA} and the ECB target π^* on the one hand, and with the euro area output gap on the other hand. The ZLB is fixed at 0 %. The central bank is equal to 2% in the baseline scenario.

(5) $\quad i_t^{EA} = Max(0,\ \rho.i_{t-1}^{EA} + (1-\rho).[r^* + \pi_t^{EA} + \Psi_1.(\pi_t^{EA} - \pi^*) + \Psi_2.y_t^{EA}])$

The long-term sovereign interest rate for the euro area is written the expecta-tions theory. It is equal to the expected sum of future short term interest rates for which expectations are supposed to be rational (following Shiller, 1979):

(6) $\quad r_t^{EA} = \tau.r_{t+1}^{EA} + (1-\tau)i_t^{EA}$

(7) $\quad r_t = r_t^{EA} + \varepsilon_t^{I_{pub}}$

(8) $\quad tcer_t = \sigma.\left(\pi_t - \pi_t^f\right)$

where r_t^{EA} is the nominal long-term sovereign interest rate for the euro area. For each country, the sovereign yield is equal to the euro area interest rate and an exog-enous risk premium. Finally, imports of each country increase with the output gap (eq.9). Then, as imports in each country are exports for other countries, we define external demand to country c as the weighted sum of imports of the other EMU countries (eq.10). As the model considers only euro area countries, the external demand only accounts for intra-euro area trade.

(9) $\quad m_t = \Omega.y_t$

(10) $\quad ad_t = \sum_j w_{m,j,c} m_t$

FS is the fiscal balance in % of nominal GDP. We decompose it between a structural primary balance *SPS* and a cyclical balance *CS*, minus government interest payments on public debt :

(11) $\quad FS_t = SPS_t + CS_t - GIP_t$

(12) $\quad SPS_t = SPS_{t-1} - EFI_t^g - EFI_t^t + \Phi.\Delta y_t^*$

(13) $\quad CS_t = \Phi.y_t$

(14) $\quad GIP_t = \overline{i_t^B}.B_{t-1}/(1 + \Delta Q_t)$

(15) $\quad \overline{i_t^B} = mat^{-1}.R_t^{pub} + (1 - mat^{-1}).\overline{i_{t-1}^B}$

(16) $\quad B_t = B_{t-1}/(1 + \Delta Q_t) - FS_t + SFL_t$

The structural primary balance evolves according to the fiscal impulse and changes related to the potential output (eq.12). This latter point means that a permanent downward shift of potential production relative to the baseline would

entail a permanent fall in taxes, then a permanent fall in the structural primary balance. The cyclical balance depends on Φ, the overall sensitivity of revenues and expenditures to the business cycle (eq.13). Interest payments on debt (in % of GDP) depend on the stock of debt times its average interest rate, and deflated by the nominal GDP growth rate (eq.14). The average interest rate on debt evolves according to the long term nominal interest rate on newly issued public bonds. (*mat*) stands for the average maturity of public debt, and is assumed to be constant. (*mat*)$^{-1}$ then gives the share of debt refinanced every year (eq.15). Public debt (in % of nominal GDP) increases with past debt deflated by the nominal growth rate of GDP, fiscal deficits and with an exogenous stock-flow adjustment variable (eq.16). The model is then calibrated as follows:

Table 15. Calibration of parameters

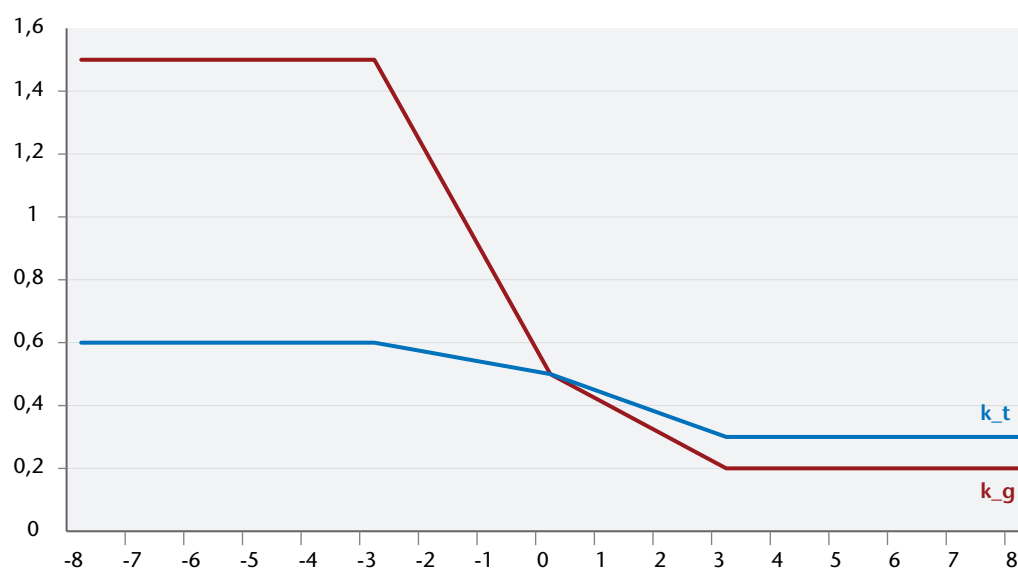|	DEU	FRA	ITA	ESP	NLD	BEL	GRC	PRT	IRL	AUT	FIN
$\delta_{1,\iota}$	-1.25	-1.25	-1.0	-1.0	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5
$\delta_{2,\iota}$	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
$\delta_{1,c}$	-0.9	-0.9	-0.9	-0.9	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
$\delta_{2,c}$	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15	-0.15
$\beta_{1,\iota}$	1.05	1.03	1.07	0.49	1.23	0.81	0.73	0.73	1.86	0.61	1.65
$\beta_{1,c}$	1.05	1.03	1.07	0.49	1.23	0.81	0.73	0.73	1.86	0.61	1.65
λ	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
η_1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
η_2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
η_3	0.44	0.3	0.28	0.3	0.71	0.84	0.31	0.39	0.81	0.52	0.42
λ_a	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65
σ	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
H	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Ω	0.87	1.0	0.92	0.94	0.47	0.8	0.59	1.0	1.0	0.66	0.74
Φ	0.51	0.49	0.5	0.43	0.55	0.54	0.43	0.45	0.4	0.47	0.5
mat	6.1	6.9	6.6	6.8	7.0	6.8	11.3	6.1	6.9	8.1	5.0

σ	Ψ_1	Ψ_2	τ
0.6	0.5	0.5	0.8166

Finally, the effective fiscal impulses depend on the level of the output gap. Fiscal multipliers are higher when the output gap is weaker. The calibration is detailed in Figure 6 representing the shape of the fiscal multipliers[14].

Simulations begin in 2016. To do so, we need to set some starting point values in 2015 for a set of specific variables. Output gaps for 2015 come from OECD database (EO97). Long-term projections for growth rates are OFCE hypotheses. These hypotheses, as well as those for long-term growth projections are necessarily open to debate. Concerning fiscal policy and budget variables, Public debt and public balance in 2015 come from OFCE-ECLM-IMK forecasts.

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14. See Blot *et al.* (2015) for details on the description of the fiscal multipliers.

Figure 6. Fiscal multipliers for public spending and taxes according to the output gap

Note: $\mu^G_{max} = 1.5$, $\mu^G_{min} = 0.2$, $\mu^G_o = 0.5$, $\mu^T_{max} = 0.6$, $\mu^T_{min} = 0.3$, $\mu^T_o = 0.5$. $y_{inf} = -3\%$ and $y_{sup} = 3\%$. Values are supposed to be identical across countries.
Source: iAGS model.

Table 16. Main hypotheses for 2015

In %

	Public debt	Fiscal balance	Structural balance	Primary structural balance	output gap	Long-term growth
DEU	71.5	0.2	0.4	1.9	-0.5	1.0
FRA	96.2	-3.7	-2.5	-0.3	-2.5	1.4
ITA	133.1	-2.7	0.0	4.3	-5.6	0.2
ESP	100.4	-4.3	-2.6	0.3	-4.1	1.4
NLD	68.6	-2.1	-1.1	0.3	-1.8	1.3
BEL	106.5	-2.7	-2.1	0.7	-1.1	1.5
PRT	128.2	-1.8	0.5	4.7	-5.0	1.0
IRL	99.8	-1.4	-0.6	3.0	-1.9	1.8
GRC	194.8	-0.3	2.5	5.3	-12.7	1.0
FIN	62.5	-3.2	-1.6	-0.5	-3.2	1.6
AUT	86.6	-1.9	-0.1	1.1	-2.2	1.4

Source: iAGS

APPENDIX

Should the euro area aim for a permanent current account surplus? Discussing about the Macro Imbalance Procedure

Especially in countries that run a current account surplus, many economists as well as politicians share the view that a persistent surplus is economically beneficial and worth striving for. As one of the consequences, the Macroeconomic Imbalance Procedure and its numerical guideline, the so-called Scoreboard, have asymmetrical biases. First, the lower threshold for an excessive current account balance is set with -4% of GDP, while the upper limit is +6% of GDP. However, both limits are exaggerated and unsustainable in the long run: If we assume a nominal GDP growth of 3.5% and no asset revaluation, the net international investment position, which is the second asymmetrical indicator, would converge to very high levels of -114 and 171% of GDP, while its threshold is -35% of GDP. The third asymmetrical bias is that the European Commission distinguishes in its assessment of imbalances, whether they result from current account deficits or surpluses, as the former require "particularly pressing" policy actions.

Since, at least on a global level, the sum of all current account balances has to be zero (leaving aside statistical discrepancies), these illustrated biases are not justified. There are no current account surpluses without equal current account deficits, so one-sided adjustments are impossible. Therefore, if the meaning of the aimed competitiveness was to achieve current account surpluses in a credible way, it should also be clear who is expected to take the counterpart, e.g. the current account deficits.

Looking at Europe, we see that current account balances have been determined mainly by trade and primary income flows between the EU Member States, not with third countries. Therefore, even if we find third countries willing to run current account deficits to maintain the surplus of the Eurozone, it will be nearly impossible to persistently maintain surpluses in some Member States without new deficits in others. In the short-term, surpluses can be maintained by expansive monetary policy and the political pressure on demand, and therefore imports, by austerity policies aimed at public accounts and wages. However, persistent current account surpluses are likely to lead to long-term appreciation pressure on the Euro, which would countervail the competitiveness strategy and decrease exports to restore the external balance. If surplus was still to be achieved, exchange rates would need to be, at least partly, fixed – like in China or Switzerland – or international investment flows out of the Eurozone would have to be strong enough to compensate for the current account surpluses. As of now, self-imposed restrictions in exchange rates seem implausible, while huge investment outflows are unlikely to foster growth (as we already have seen in Germany before the crisis). Coordination within the EU/Eurozone is therefore essential to decrease imbalances.

In terms of single European countries, running a medium-term current account surplus is only possible if other countries are running a deficit. In the long-run, it is questionable whether this position is sustainable. Politically, these single country neo-mercantilist strategies would endanger or even destruct regional cohesion. Economically, a current account surplus comes hand in hand with capital exports

and thereby leads to the creation of long-term financial assets. This consequently raises the vulnerability of the economy to financial crises and the risk that income claims, linked to rising wealth, will not be met as deficit countries could reach a point where they cannot find someone financing their capital imports. This could lead to losses in real income and in severe crises, devaluation of assets or debt restructuring. If this is the case, earlier current account surpluses are lost. The former trade-off between consuming or saving, with the goal of higher future wealth/consumption, remains unmet.

As seen during the financial crisis, negative feedback effects may occur: large write-offs in foreign accounts may place domestic bank and firm balance sheets in jeopardy, leading to further feedback effects. If a foreign country, which is suffering from financial hardship, is an important trading partner, a collapse of export demand is likely. Within the Eurozone, trade-interconnectedness between countries may indirectly but negatively affect third countries. Taking these risks into account, the strategy of long-run current account surpluses turns out to be unsustainable and economically counterproductive.

Summing up, the reduction of current account surpluses derives from pure national self-interest of each member state as well as the European Union as a whole. Current account surpluses are mainly the result of a shortfall in domestic consumption and investment, persistent current account surplus equals persistently "living below one's means" (for the benefit of – at least theoretically – cumulate persistent wealth in other countries). Yet, the people who establish the conditions for running a surplus are usually workers. Their – not always voluntary – concession of income and consumption highlights the differences in living standards within countries with a high current account surplus. As we have shown in chapter 2, such a change of the functional income distribution is likely to decrease the aggregate growth potential in Europe.

The strategy of obtaining current account surpluses creates negative spillover effects. As they usually result from exporting more goods and services than importing, current account surpluses go hand in hand with import deficits (positive net exports), which decrease the export possibilities especially of neighbouring countries. In the current situation with low growth, weak domestic demand and ongoing adjustment processes in the euro area, especially the countries with growing positive net international investment positions (Germany, the Netherlands, Belgium, Austria, Denmark, Luxembourg, Malta and soon Sweden) should reduce their import deficits of far more than 300 billion euros per year. This would not only increase the current living standard of their inhabitants, but also create a far bigger stimulus package than the current investment plan.

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