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Jefferies 2018 European Economic Outlook

GLOBAL FIXED INCOME

QExit and Brexit: Mario and Mark's adventure is about to get bumpy

- With the ECB preparing to end QE, the BoE eyeing further rate rises and the US Fed on a path of rate normalisation, the decade of extraordinary monetary policy is coming to an end. The direction of travel is clear, but the timing of central bank policy steps is anything but certain. Will the strength of the recovery allow the ECB to forego tapering altogether? Will the BoE be in a position to raise interest rates if the UK is seen to be aimlessly drifting out of the EU? And would the Fed follow through on multiple rate hikes next year, even if inflation continued to undershoot expectations? These are likely to be some of the main points of debate in 2018.
- Inflation, in a familiar way, remains the missing piece of the puzzle. After years of disappointment, few are forecasting anything other than subdued growth in wages and prices for the year ahead. But if inflation were to surprise on the upside, market interest rates could surge higher, with the Central Bankers playing catch up.
- The ECB, will take its time winding down QE, but the pace of its sovereign bond purchases could fall by more than half from the start of the year, with all eyes on what happens to periphery spreads in the aftermath. Globally too, with almost 50% of ECB QE purchases made from foreign investors and recycled into overseas assets, a less active ECB will impact the US and the UK markets.
- The Catalan issue remains unresolved, but generally, the political obstacles of 2017 were navigated without major damage; now the focus is on the upcoming Italian election on 4 March. The 5 Star Movement lacks an obvious route to power, but substantial market volatility still seems likely around the event. At the ECB, all eyes will be on the departure of Vitor Constancio - Draghi's dovish vice president - at the end of May. A hawkish replacement (perhaps Knot) could signal an important shift at the heart of the institution.
- In the UK, the clock is ticking down to the March 2019 Brexit departure date, while the BoE is essentially trying to guess what the new set-up will mean for the long-term prospects for the UK economy. The February BoE Inflation Report should help guide interest rate expectations for the rest of the year and the markets may once again be caught out by the MPC's hawkish leanings. Politically, the lull during the EU/UK trade negotiations in the first half of the year could be followed by a frantic sprint for the finish line in the final months of 2018, as the provisionally agreed Brexit terms are scrutinised for final approval. Indeed, if the MPs are given a 'meaningful vote' on the final deal, the government's slim majority could be severely tested in passing the final legislature through, raising the prospect of a new General Election and the possibility of Article 50 being extended to buy all sides more time.

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QExit as the euro area surprises on the upside BoE attempts to look through Brexit

Policy wise, 2018 will likely be dominated by speculation about the timing of when the ECB will stop QE, with a BoE which has a bias to raise rates further trying to look through all the uncertainty created by Brexit. ECB Executive Board Member Yves Mersch referenced QExit in a recent speech, as well as Article 127 of the Lisbon Treaty, taking account of the potential side effects from running an expansionary policy for too long. Moreover, for anyone attending the Society of Business Economists Annual Dinner last month with the DNB's Klaas Knot (a possible replacement for Vitor Constancio as ECB Vice President from next June?), the message was clear. Assuming the euro area recovery continues to build legs, then as things stand he could call for the end of QE to end as early as September – putting Mario Draghi firmly in position to raise rates for the first time in this cycle potentially well before he leaves the ECB in October 2019.

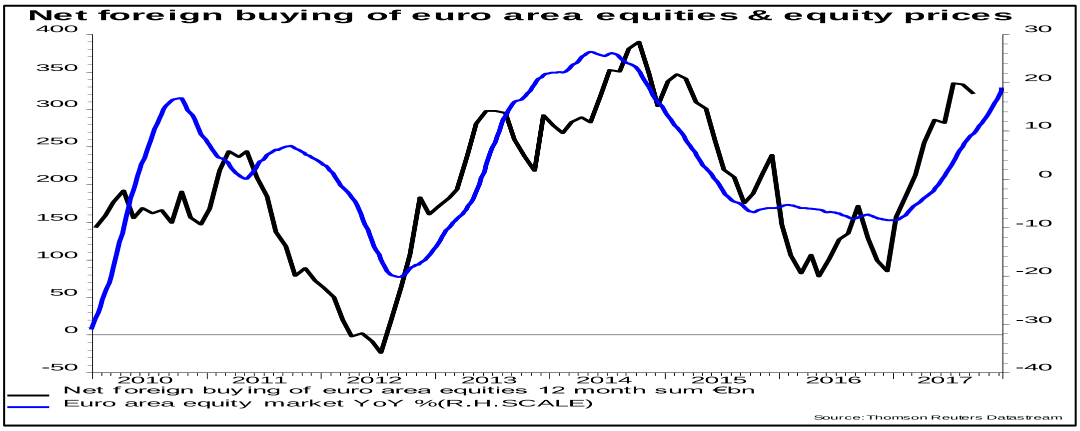
As the threat of deflation has receded, an actual pick-up in inflation is of secondary importance with more focus on the robustness of recovery and Peter Praet, the ECB's Chief Economist, drawing attention to a new measure of inflation, supercore. The ECB can look across at the US Fed and see a Central Bank that started to raise rates and is now shrinking its balance sheet before inflation has decisively picked up.

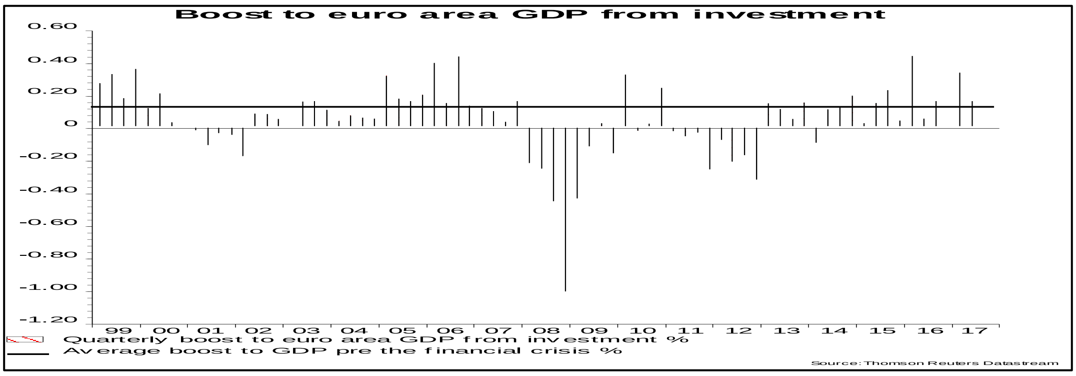
The policy debate more generally has moved on with less focus on inflation targeting and more focus on macro prudential policies and financial stability. This point was underlined by the BoE's conference celebrating 20 years of operational independence. These 20 years can be divided into two parts; 10 years good (or as former BoE Governor described it, NICE), 10 years bad. Inflation targeting may have been achieved in the first 10 years of BoE operational independence, but this period ended in the financial crisis.

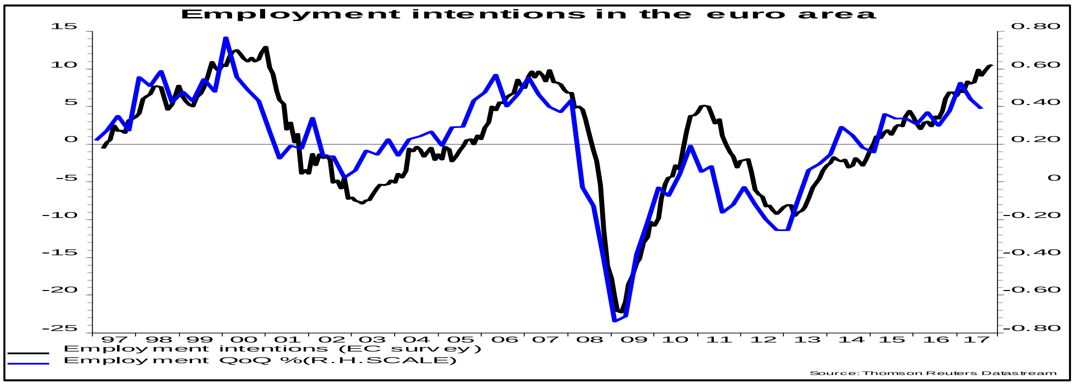
Now there is more focus on some of the potential downside of keeping interest rates at these levels and a focus on Central Bank balance sheets, with even concerns expressed about potential threats to Central Bank independence. And, remember that unlike the BoE, the ECB is not indemnified against any losses on its balance sheet, including its growing holdings of corporate bonds. None of this is to say that the ECB is considering changing its policy on sequencing (no rate rise before QE comes to an end), just that as the threat of deflation has faded from view, the ECB only needs to see a recovery that continues surprising on the upside to end QE. Moreover, if supercore inflation picks up (it hit 2% in Germany a few months ago), then QExit becomes easier to justify.

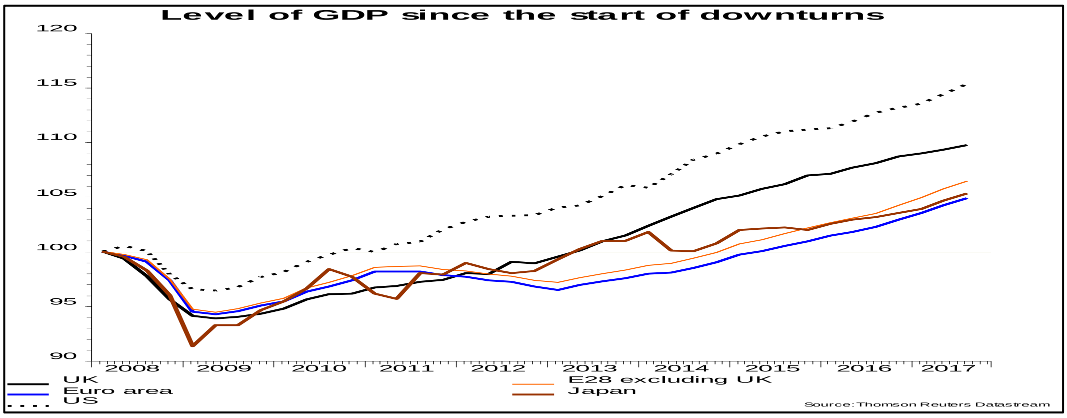
Certainly, recent months have seen on-going net foreign buying of euro area equities. In previous periods when net foreign buying of euro area equities has been running at around €300bn at an annualized rate, the equity market was up by 10% or more. Taking a 12-month moving average this was precisely what was seen in 2017, all adding to the confidence in recovery and making financing easier.

Given the scale of the 2008 downturn and the fact that the euro area subsequently went back into recession under the weight of austerity and the sovereign bond crisis of 2011 and 2012 there has to be significant pent-up demand across the bloc. The euro area has already seen a surprisingly strong investment recovery. What then of consumer durables?

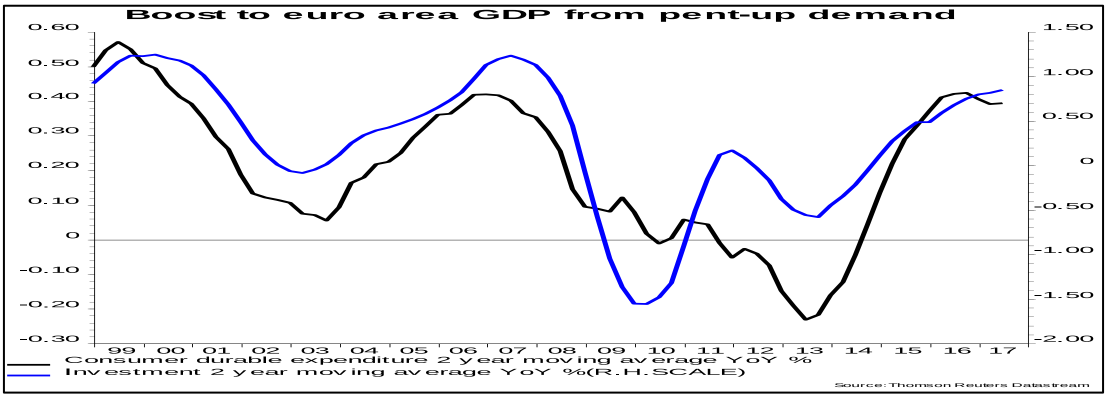


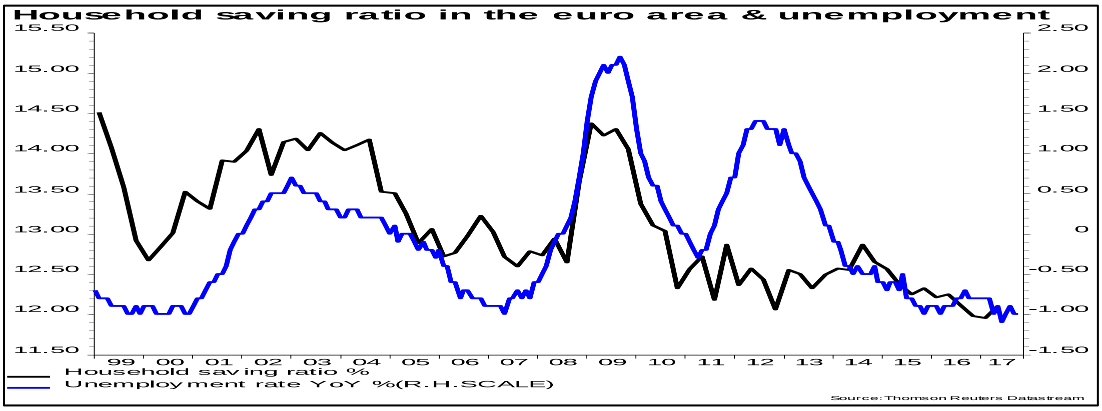




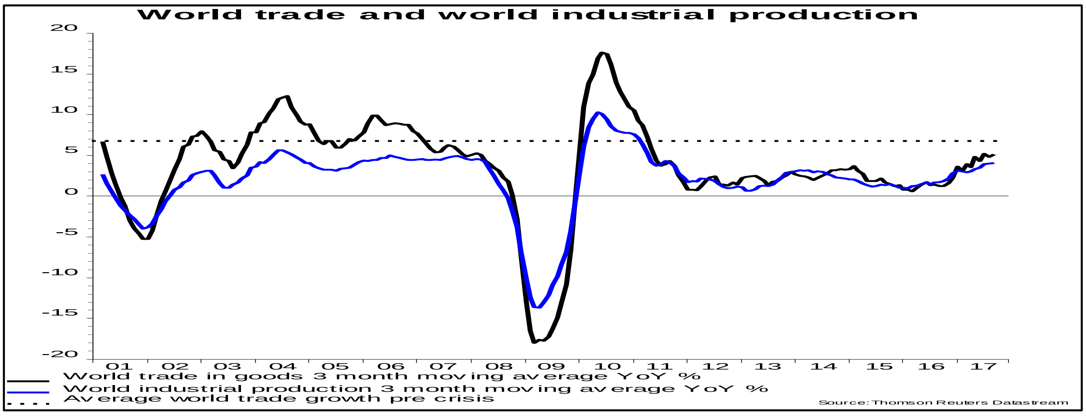


The chart below shows the estimated contribution of consumer durable expenditure to euro area GDP. History would suggest that this should have much further to run, especially given the downturns we came through and with forward looking indicators of employment intentions so positive and housing markets picking up momentum. The ECB partly justifies its cautiousness on the recovery (2.3% GDP growth in 2018) by assuming a higher household saving ratio. However, as unemployment continues to fall so the saving ratio is more likely to decline.



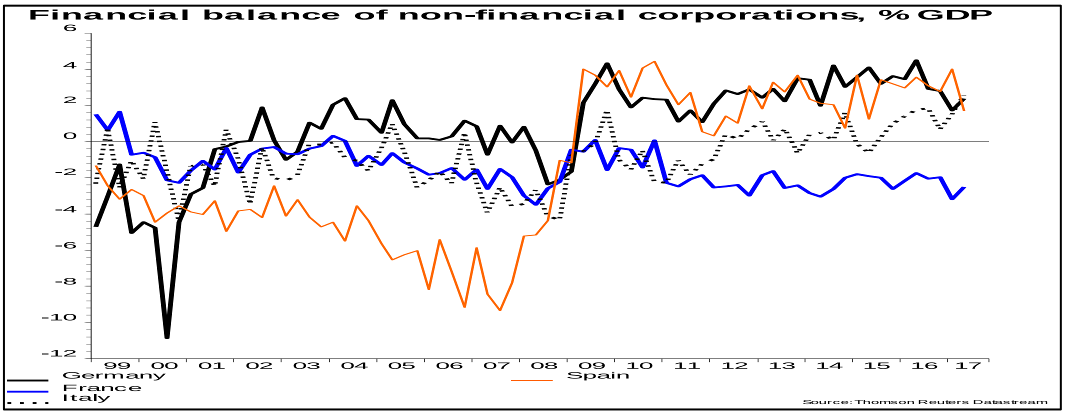


Importantly, 2017 saw the first decisive pick-up in world trade since the financial crisis. This is especially important for the euro area given the importance of trade for the bloc; around 50% of GDP comprises exports and imports of goods and services with countries outside the euro area, a figure almost double that seen for the US and even much higher than Japan. Moreover, a pick-up in world trade is often associated with intra-euro trade also kicking in (the trade that Italy, for example, does with France and France, with Germany).



But, arguably, one of the most important swing factors that could result in the euro area recovery stepping up a gear and even achieving 3% growth in 2018 is what happens to the corporate sector financial balance.

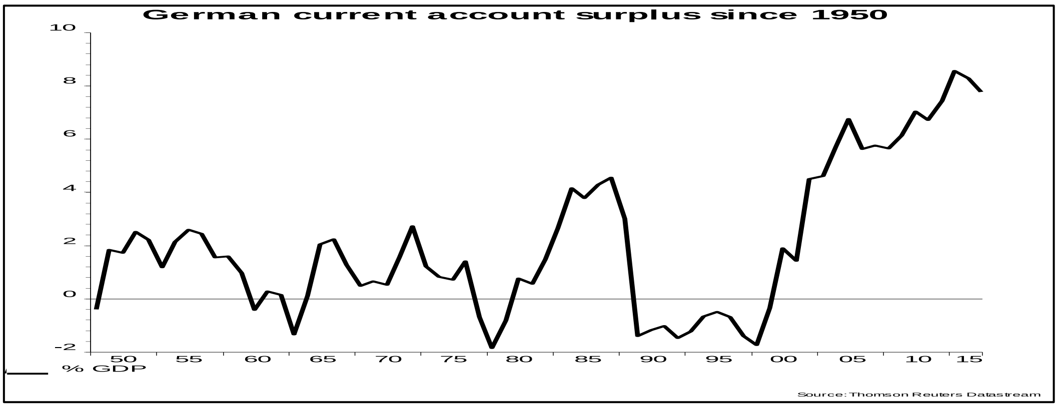
The normal state of affairs is for the corporate sectors of economies to be in small deficit, with the financial sector recycling the savings of households to companies which then invest for future growth. Of course, history shows that prior to recessions irrational exuberance can take over with the corporate sector deficit rising to around 3-4% of GDP. The subsequent recessions are then made worse by the corporate sector cutting costs and moving into surplus. But, at some point after recovery takes hold the corporate sector moves back into deficit again with the financial sector re-cycling the savings of the household sector. On occasion, the corporate sector's deficit can be financed by overseas investors, often the counter-part of the country running a large current account deficit. This is certainly what was seen in Spain prior to the financial crisis, which was why we were so bearish about the economy at the time. Indeed, that is one of the advantages we have when covering the euro area; the level of country detail is very high with the quality of the data improving all the time. Hence, we can see imbalances developing almost in real time, or least with a relatively short lag. Often these imbalances are driven by the corporate sector, financed by cross-border capital flows.

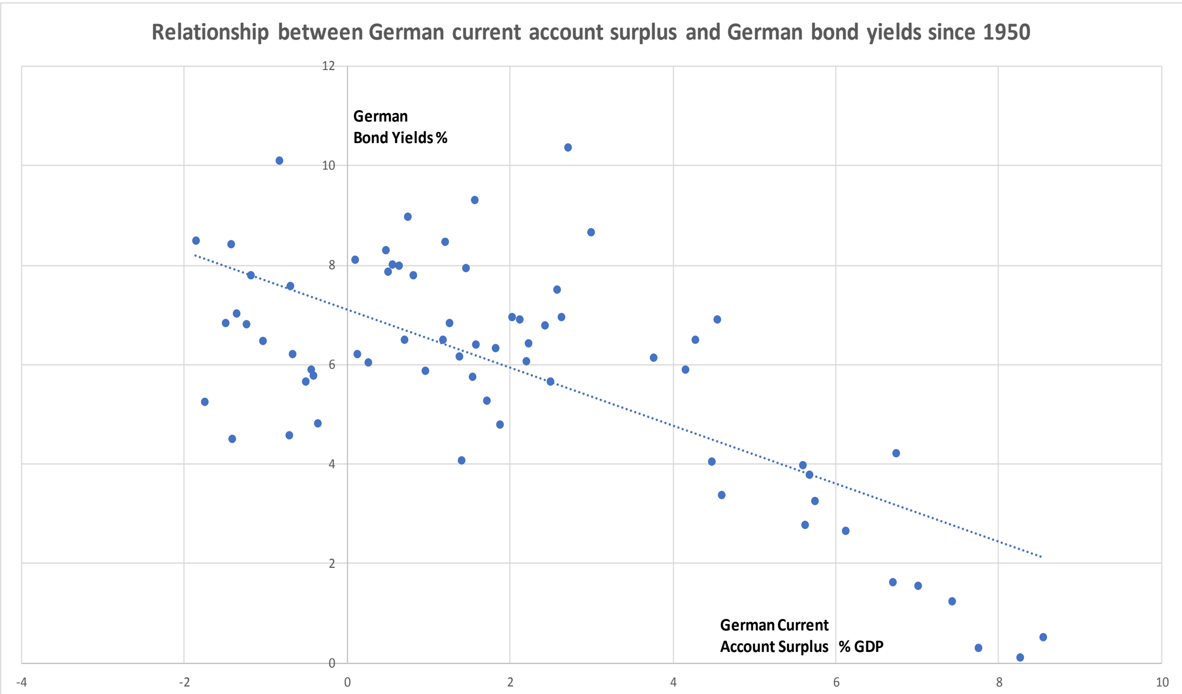


When it comes to present juncture, what is important to recognize is that the German corporate sector remains in relatively large surplus (which got larger in Q2 2017). This is despite the German economic recovery picking up traction, the exceptional low level of German borrowing costs and the fact that the German financial system is awash with cash (with €625bn sitting on deposit at the Bundesbank attracting a negative interest rate).

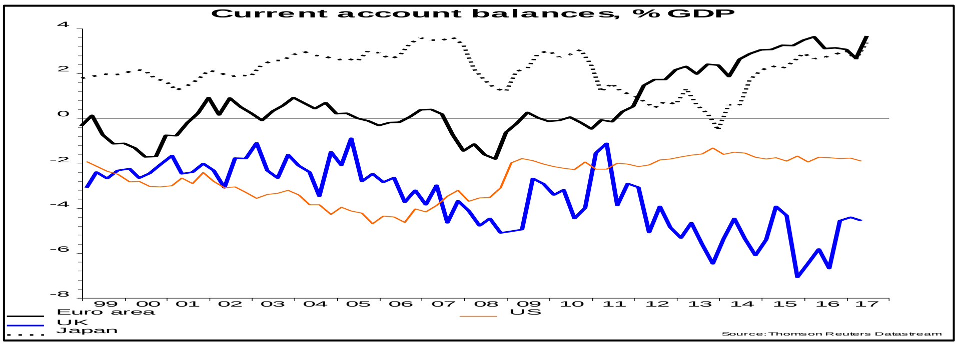
Moreover, it is not as if the German corporate sector has always been in surplus. Wind the clock back to the pre-crisis period or in 2000 and the German corporate sector was in large deficit (especially in 2000). What would make a major difference to the euro area recovery is if the German corporate sector did step up to the plate and move back towards deficit.

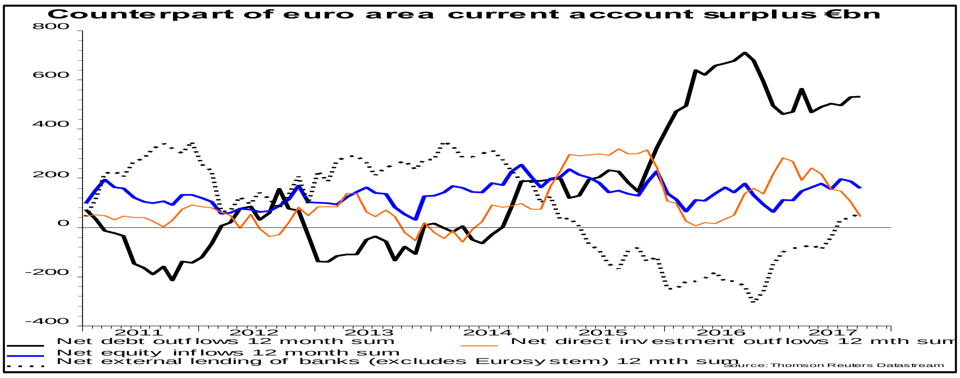
This could also have a significant effect on Germany's current account surplus and in turn capital flows, globally. As things stand, it is not simply that Germany has a large current account surplus; the surplus is off the scale, as the chart showing data back to 1950 confirms. Moreover, historically there has been a relatively close relationship between Germany's current account position and the level of German long-term interest rates. Everything being equal, a smaller German current account surplus would be associated with higher German bund yields, especially if this is associated with Germany's excess savings being put more to work across the bloc. But, it is also important to stress that the recovery has been building legs and surprising on the upside without the German corporate sector swinging into deficit. Even a smaller German corporate sector surplus has the potential to give further upside to a euro area recovery that has been surprising on the upside anyway.



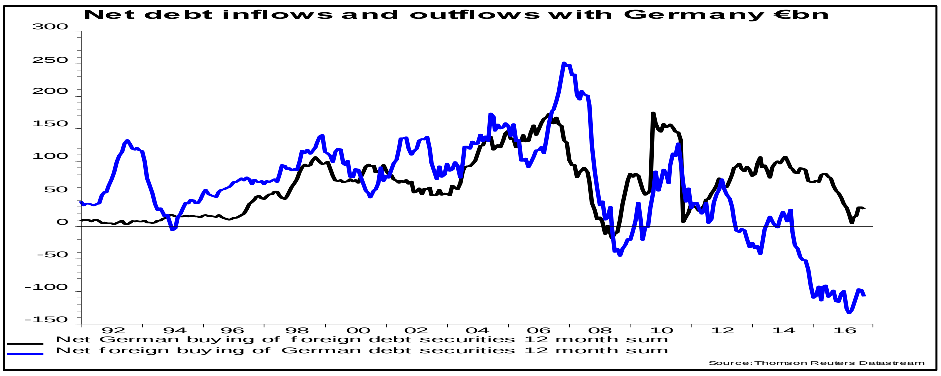


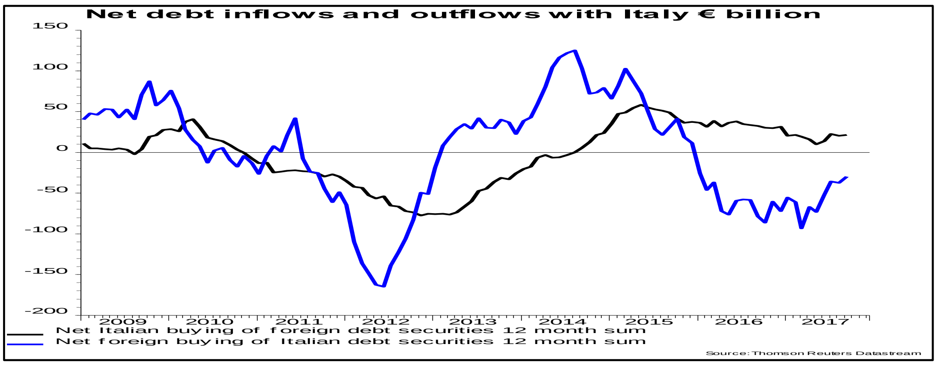
QE operates differently in the euro area compared to the US, UK or Japan, in large part because almost half the paper purchased has been bought from investors residing outside the region. This has effectively contributed to the euro area's current account surplus being re-cycled via QE into fixed income markets internationally. This was first seen with flows into the US in 2015 and 2016 and importantly following the 2016 EU vote, into the UK. Indeed, without the ECB and QE it is more problematic how the UK would have financed its large current account deficit.

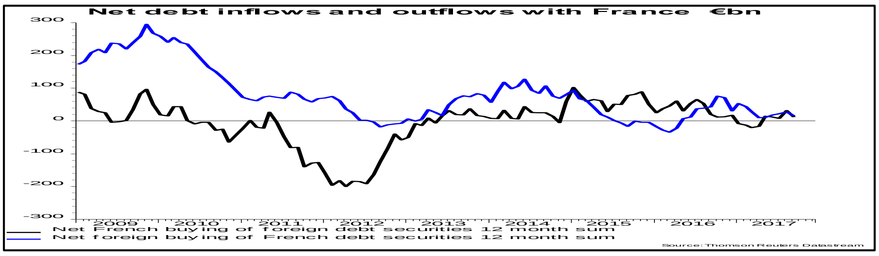


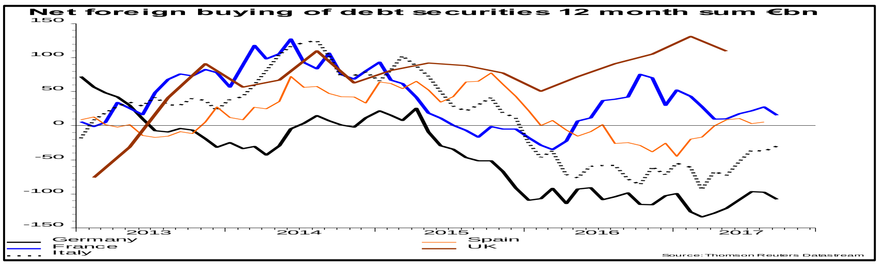


Net foreign selling of German debt securities continues, but we wonder whether Italy, which had seen significant net foreign selling, will be favoured. This is especially likely to be the case if Italy as an economy surprises on the upside. Meanwhile, despite all the uncertainties running into their 2017 elections and the widening out initially seen in the spread between France and German bond yields, the balance of payments suggests little in the way of net foreign buying or selling of debt securities in the euro area's second largest economy. However, this should also be seen in the context of the Banque de France being the second biggest buyer in the program.



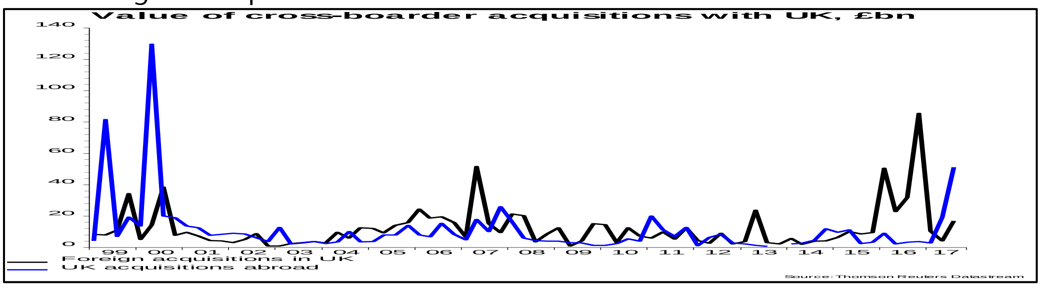


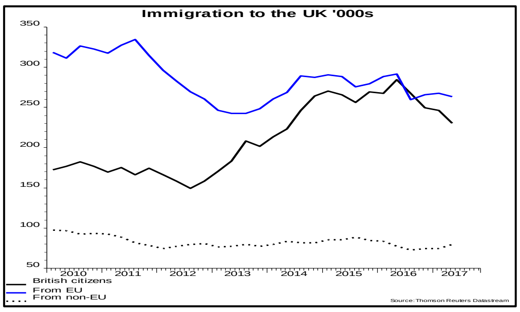


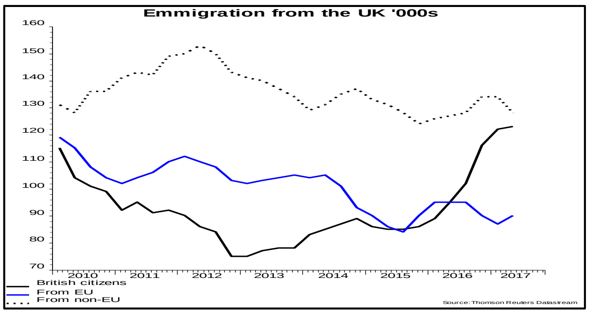


In a perfect world, as the ECB heads towards potentially bringing QE to an end in 2018, the euro area will be surprising on the upside with pent-up demand really kicking in, the corporate sector swinging back into deficit with excess savings being put more to work in the region itself. This would likely be associated with the euro area running a much smaller current account surplus, such that there would be not be a need for such large net capital outflows. But, to the extent that the ECB and QE along with the euro area's large current account surplus have helped anchor interest rates globally at a very low level, then this would be another reason to see higher yields, not just in the core of Europe, but globally.

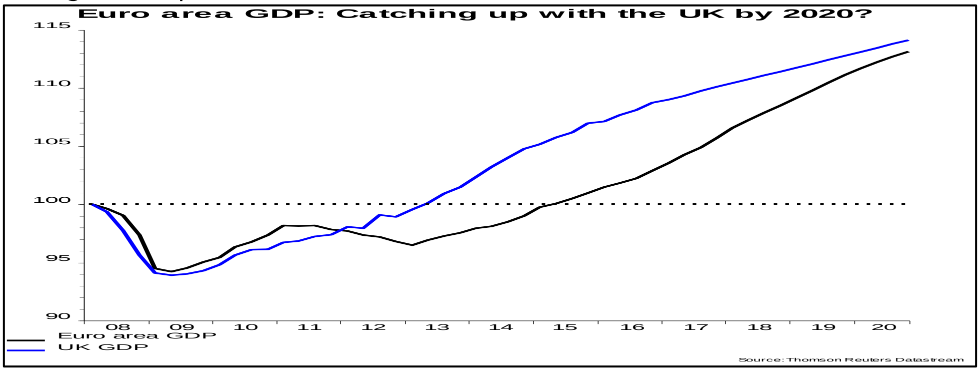
Which brings us to the UK. In contrast to a euro area that could grow close to 3% in 2018, the UK may be lucky to record half that rate of growth. Of course, we will never know to what extent this is due to the vote to leave the EU in 2016, or whether a slowdown would have happened anyway. However, even if recession was avoided there is growing evidence of some of the trends that have been so supportive of the UK economy outperforming are slowly but surely going into reverse. This now includes migration figures which contained a significant increase in Brits emigrating, but also long-term capital flows.





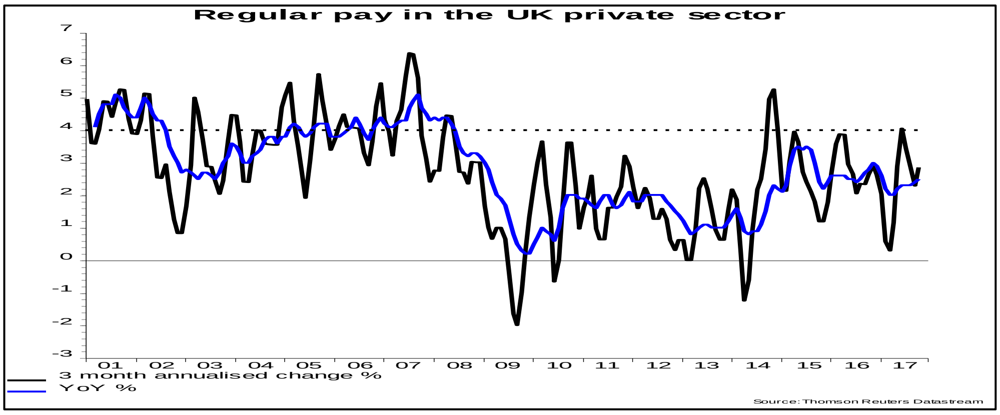


The monetary policy debate in the UK has certainly moved on. In the immediate aftermath of the EU vote, the BoE acted quickly to unveil a whole series of measures – altogether thought equivalent to cutting the policy rate by almost 100 basis points (this includes another round of QE and the Term Funding Scheme, as well as the Bank Rate cut). The UK also benefited from the fall seen in the pound, although this has now fed through and squeezed real incomes.

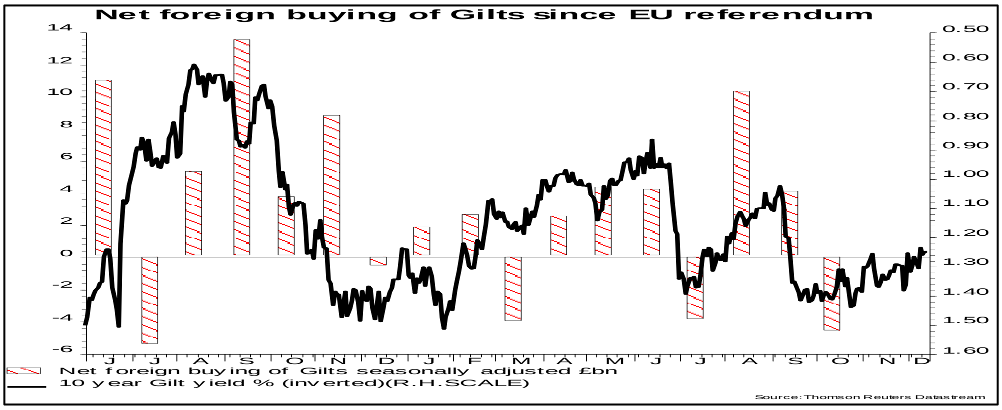


The BoE now needs to navigate around Brexit, but clearly has a bias to tighten with a renewed focus on the BoE's balance sheet. The UK economy may be growing at only around 1.5%, but the question is how does this compare to trend and how much spare capacity is there?

February is an important month for monetary policy in the UK given that is when the BoE conducts its deep dive of supply potential of the economy, including putting a revised estimate of the so-called medium-term equilibrium unemployment rate into the public domain (last put at 4.5%). Wind the clock back to June and regular pay in the private sector hit a 4% three-month annualized growth rate. Now the equivalent figure is 2.9%. By February, and certainly by May, the BoE will have a better idea what is happening to settlements in the annual pay round. Obviously when it comes to the monetary policy decision it is not just wage inflation that matters, but productivity. Going forwards, if trend productivity growth is seen as being even lower as a result of the UK voting to leave the EU, then wage inflation of not much more than 3% might be considered as consistent with the 2% CPI target, given the importance of unit labour cost growth in determining domestically generated inflation.



The market meanwhile is pricing in only a small degree of UK monetary tightening in the next 12-18 months. Not only that, but the market is attaching almost a zero probability of there being another Bank Rate cut and very little for the BoE raising rates in defence of the pound. As we continue to highlight recent months have seen the UK's large current account deficit being in large part financed by net foreign buying of Gilts. This in turn has depended a lot on the ECB's QE policy helping recycle the euro area large current account surplus into other fixed income markets. 2018 could see the UK current account deficit falling faster than expected if the balance on the UK's investments swings back towards surplus. In particular, the investment income the UK derives on its substantial EU investments was badly impacted in the financial crisis and as already highlighted the euro area recovery could be in the process of stepping up a further gear. But, we would also warn that the ECB could also be on track to stop doing QE several months before the UK is due to leave the EU and that may result in a lot less net foreign buying of Gilts. Hence, what happens to the UK current account deficit in 2018 may really matter for what happens to interest rates in the UK.



Another complication is that many commentators still seem to be under-estimating the complexity of the UK exiting the EU. To date, the UK government has ceded to the EU-27 demands for sequencing and in principle the financial settlement, with the issue of the Irish border ultimately potentially being resolved by regulatory alignment – which in turn could have significant implications for the rest of the UK (BINO – "Brexit in name only").

When it comes to the need for a transitional deal Sussex University's influential UK Trade Observatory has been argued that because of all the complications relating to Free Trade Agreements with the rest of the world and Rules of Origin (a major issue for supply chains), the only viable option will be to extend out Article 50. This is especially the case given the need for a transitional deal to be in place by the end of March. However, extending out Article 50 would mean that the UK had not actually left the EU on the 29 March 2019. Arguably this would also not be in interests of the EU-27, given the fact that the UK would still have a say on EU matters and there would be complications with the European Parliamentary elections in 2019. But, it all depends how easy it will be to agree a bespoke transitional deal for the UK in the very short time involved.

And, again when it comes to sequencing it has been apparent for some time that as far as the EU-27 is concerned, negotiations on the future trade deal will be conducted under Article 218, not Article 50. Moreover, in principle Article 218 follows completion of Article 50 and only after the UK has left the EU. This is not to say that the EU-27 will not be prepared to sketch out the options for its future trading arrangements with the UK in 2018. We can be sure that many of these issues will be known by the UK government, but the issue is how to sell it to an electorate that might have thought that bringing back control would be straightforward. Nevertheless, given the 5-year Fixed Parliament Act and the fear of the Tories losing office, we do not look for another election in the UK in 2018. If there is to be another UK election before June 2022 (5 years after the last one) it is more likely to be in 2019 or 2020, when Brexit related issues could come much more to a head, especially if by then the UK has slid back into recession again.

Partly because of Brexit, but also political developments on the continent especially following the French and German elections, there is a renewed push to complete more of the EU project. How this proceeds remains to be seen, but anything that ultimately results in the EU-27 and especially the euro area being more resilient in any future downturn could increase the attractiveness of the bloc as an asset class.

In terms of the regional fallout from a disorderly Brexit a recent paper highlighted that contrary to conventional wisdom London and South East will be less impacted than other parts of the country. The argument here is that since the financial crisis London and the South East has become more global in focus, whilst the rest of the UK has become more embedded in the EU supply chain. This also includes service companies, that work closely with manufacturing at a regional level. Outside the UK, Ireland, Belgium and the Netherlands are most exposed to a disorderly Brexit, along with key regions of Germany, closely aligned with UK manufacturing. However, one of the bigger losers of a disorderly Brexit could be Mario Draghi if he were forced to do another round of QE just before leaving the ECB in October 2019. What though is clear is that ever since the UK triggered Article 50 the ball has been much more firmly in the EU-27 court. Fireworks can be expected in the first quarter as the exact terms of the UK’s transitional arrangements with the rest of the EU become clear, especially if it becomes obvious that the UK may still be tied to the EU for several years, unable to strike trade deals and gradually losing influence.

But, for the ECB 2018 is likely to be a year when they manage QExit. Obviously, this will be made easier if the euro area economy does grow close to 3% next year. Expect more focus on supercore inflation if it continues picking up. And, for the BoE 2018 is likely to be a year when they have to look through all the uncertainty to set interest rates according to how much spare capacity they estimate to be in the UK and whether UK growth is above potential. Their central case will remain an orderly Brexit, with the BoE's Financial Stability Reports and the FPC focused on tail risks. Finally, QExit could have a major impact on capital flows globally, especially given the way QE helped recycle the euro area's current account surplus globally. Source: ECB and Jefferies International

Transitional arrangement	Practical implementation	Legal and political implications	Political feasibility
Extension of the EU acquis *communautaire*, without membership	- Article 50 withdrawal agreement would be the legal basis. - Requires approval of European Council (QMV) and European Parliament, but not member states.	- UK-EU cooperation and trade is virtually unchanged. - UK loses decision-making powers and is no longer represented in EU institutions. - UK continues to follow and adopt EU law (e.g. free movement), under ECJ jurisdiction. Principles of direct effect and supremacy of EU law still apply. - Continued contributions to EU budget.	- Consistent with UK and EU positions on the transition. Both sides want a comprehensive, 'status quo' transition based on existing EU frameworks. - Problems will arise if UK seeks opt-outs from specific policy areas, such as fisheries, or opposes ECJ jurisdiction.
Extension of the Article 50 withdrawal negotiations	- Article 50 would be the legal basis. - Requires unanimous approval of European Council, but not European Parliament or member states.	- The UK remains a full, participating EU member state, with all of the rights and obligations that entails.	- Consistently ruled out by the UK government. Might be problematic from a domestic political perspective. - Difficult to agree due to Council unanimity requirement. Also disruptive for the EU, with elections and new Commission in 2019. - Feasible option in a crisis situation or as a short-term measure.
Remaining in the internal market via the EEA Agreement	- Article 50 withdrawal agreement alone would not be the legal basis. - Amendments to the EEA Agreement would be required, involving the national (and some regional) parliaments of all contracting parties. - The UK might have to join EFTA, requiring unanimous approval of the EFTA states.	- UK remains a member of the internal market and trade in services continues unchanged, due to continued regulatory harmonisation, but UK loses decision-making powers and is no longer represented in EU institutions. - UK would leave customs union and regain sovereignty in a range of areas, such as international trade, agriculture and fisheries. - UK continues following many EU laws and the four freedoms still apply, albeit under EFTA Court and EFTA Surveillance Authority jurisdiction. Principles of direct effect and supremacy of EU law no longer apply. - Continued contributions to EU budget.	- Explicitly ruled out by the UK government. - Would be challenging to gain approval of all parties by March 2019 and might be rejected by the EFTA states as too disruptive. - Could be acceptable to the EU, which is happy with the EEA-model for third party relationships. - However, probably not feasible due to the practical difficulties of implementing it (e.g. treaty amendment).
Remaining in the internal market with a new agreement modelled on the EEA Agreement	- Article 50 withdrawal agreement would be the legal basis. - Requires approval of European Council (QMV) and European Parliament, but not member states or EFTA states. (Unless the EFTA Court and EFTA Surveillance Authority were to be used).	- UK remains a member of the internal market and trade in services continues unchanged, due to continued regulatory harmonisation, but UK loses decision-making powers and is no longer represented in EU institutions. - UK would leave customs union and regain sovereignty in a range of areas, such as international trade, agriculture and fisheries. - UK continues following some EU laws and the four freedoms still apply. However, bespoke institutional mechanisms for enforcement and dispute resolution need to be set up. Principles of direct effect and supremacy of EU law no longer apply. - Continued contributions to EU budget.	- More feasible than UK re-joining EEA Agreement due to relative ease of implementation and political agreement. - However, taken alone, this is not a comprehensive transitional arrangement, and is thus not consistent with UK or EU position. - Difficulty of setting up bespoke institutional mechanisms for judicial oversight and enforcement cannot be overlooked.
Entering into a customs union agreement with the EU customs union	- Article 50 withdrawal agreement would be the legal basis. - Requires approval of European Council (QMV) and European Parliament, but not member states.	- Free movement of goods and tariff-free trade in goods continues unchanged. - UK continues to follow and adopt the EU's common external tariff, customs policy and associated legislation. ECJ jurisdiction would probably continue. - UK loses decision-making powers and is no longer represented in EU institutions. - If pursued in isolation, budgetary contributions could end.	- As it only covers trade in goods, taken alone, this option is insufficient as a substantive transitional arrangement. It is therefore not consistent with UK or EU position. - It could be politically feasible to agree, although issues would arise over the extent to which the UK can pursue an independent trade policy.

Source: UCL Constitutional Unit

No surprises from Draghi in December, but 1.8% core inflation forecast speaks for itself

The ECB delivered no surprises in terms of its communication at the last meeting of 2017. The key language around its forward guidance was left unchanged and Draghi's press conference was littered with "we haven't discussed it" replies. Disappointingly, in our opinion, there was no guidance given in terms of how exactly the ECB will scale-down its QE purchases from January. Away from the technicalities of QE, Draghi was predictably opaque in his Q&A responses. The main takeaways from him on the day were that: 1) the ECB has greater confidence in the economic outlook; but that 2) it's not yet ready to amend its forward guidance. This change, though, is clearly coming. And after the forward guidance is amended (perhaps the March meeting), the next decision for the ECB to make is whether to end QE at the end of September, or whether to taper purchases and to finish QE at the end of the year. This choice, we think, is something that can be delayed until the June meeting.

During the press conference when Draghi played his cards close to his chest, the new macro forecasts stood out. On the GDP side, the ECB chose to be conservative with its numbers. So, for example, we expect to see growth some 0.5pp higher in both 2018 and 2019 (see first chart on the next page). But in terms of appearance, the ECB's figures leave room for upward revisions next year, which would be a good place for the ECB to end up. The most interesting part of the ECB's forecasts, however, are the projections for core inflation. The figures for 2018 are revised lower to 1.1% from 1.3%; 2019 is left unchanged at 1.5%; but 2020 forecast now stands at 1.8%. On the one hand, these figures show more realism about the challenges of getting core inflation higher in the near term. But the 2020 forecast is unequivocally hawkish.

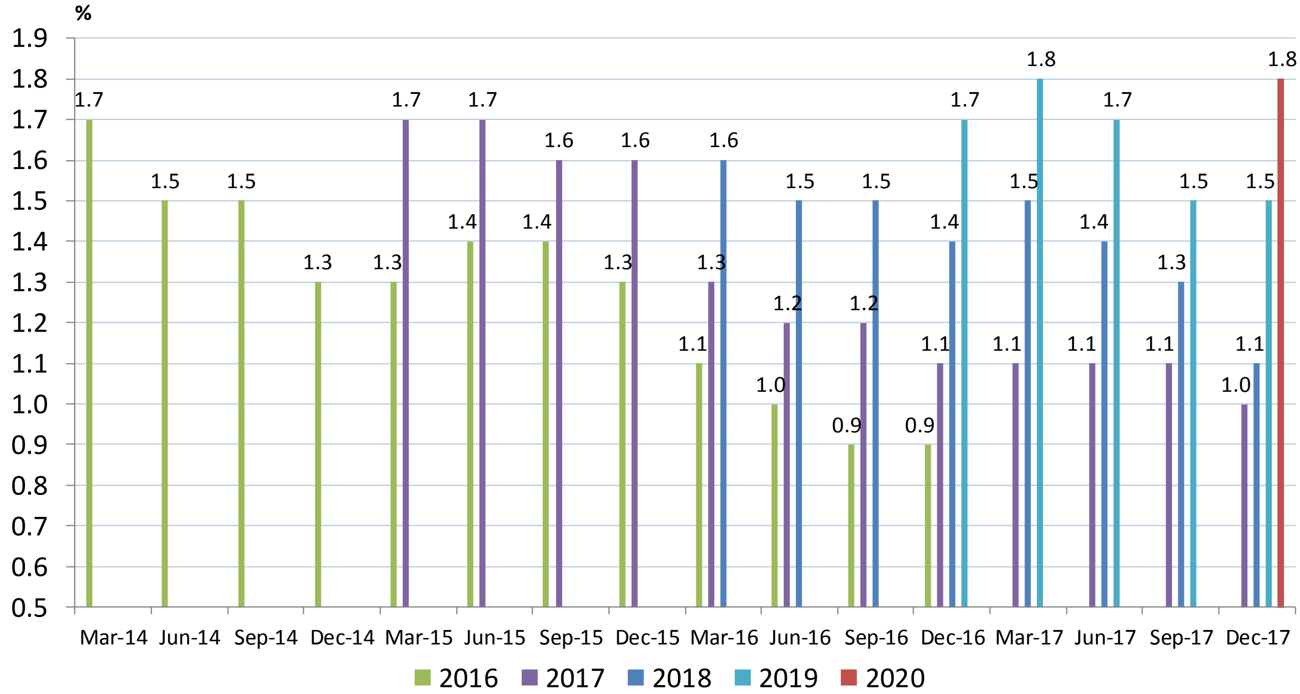
As the second chart on the next page highlights, for sure, the ECB has a history of starting high and then revising down its core inflation forecasts. But, nonetheless, the ECB is starting to build the case why QE should be coming to an end, and perhaps as early as end-September. The incoming data over the coming six months will of course be crucial; but it's important to remember that the ECB actually set itself a fairly low bar, both for GDP growth, and for core inflation set to average 1.1% in 2018. So, there is potential for the ECB to be 'surprised' by data between now and June, and then to use this fact to argue for a slightly faster pace of policy normalisation. Especially if the 'super' core measure of inflation prints closer to say 1.5%.

How much higher will the ECB's quarterly forecasts end up?

GDP		2017 Range	Mid-point	2018 Range	Mid-point	2019 Range	Mid-point	2020 Range	Mid-point
	Mar-16	0.7% - 2.7%	1.7%	0.6% - 3.0%	1.8%				
	Jun-16	0.7% - 2.7%	1.7%	0.5% - 2.9%	1.7%				
	Sep-16	0.7% - 2.5%	1.6%	0.4% - 2.8%	1.6%				
	Dec-16	1.1% - 2.3%	1.7%	0.6% - 2.6%	1.6%	0.4% - 2.8%	1.6%		
	Mar-17	1.5% - 2.1%	1.8%	0.7% - 2.7%	1.7%	0.5% - 2.7%	1.6%		
	Jun-17	1.6% - 2.2%	1.9%	0.8% - 2.8%	1.8%	0.6% - 2.8%	1.7%		
	Sep-17	2.1% - 2.3%	2.2%	1.0% - 2.6%	1.8%	0.6% - 2.8%	1.7%		
	Dec-17	2.3% - 2.5%	2.4%	1.7% - 2.9%	2.3%	0.9% - 2.9%	1.9%	0.6% - 2.8%	1.7%
	Jefferies forecast		2.4%		2.8%		2.4%		2.1%
HICP Inflation									
	Mar-16	0.6% - 2.0%	1.3%	0.8% - 2.4%	1.6%				
	Jun-16	0.6% - 2.0%	1.3%	0.7% - 2.5%	1.6%				
	Sep-16	0.6% - 1.8%	1.2%	0.8% - 2.4%	1.6%				
	Dec-16	0.8% - 1.8%	1.3%	0.7% - 2.3%	1.5%	0.9% - 2.5%	1.7%		
	Mar-17	1.4% - 2.0%	1.7%	0.9% - 2.3%	1.6%	0.8% - 2.6%	1.7%		
	Jun-17	1.4% - 1.6%	1.5%	0.6% - 2.0%	1.3%	0.7% - 2.5%	1.6%		
	Sep-17	1.4% - 1.6%	1.5%	0.6% - 1.8%	1.2%	0.7% - 2.3%	1.5%		
	Dec-17	1.5% - 1.5%	1.5%	0.9% - 1.9%	1.4%	0.7% - 2.3%	1.5%	0.8% - 2.6%	1.7%
	ECB core inflation forecast		1.0%		1.1%		1.5%		1.8%

Source: ECB and Jefferies International

History of ECB's core inflation forecasts



Source: ECB and Jefferies International

GLOBAL FIXED INCOME

Winter is coming, ECB PSPP cuts could be hefty

As things stand, the ECB has not provided any meaningful detail about how it will conduct QE from 1 January; so, the markets are left guessing what assets the ECB will be buying, and by how much purchases will be cut by asset class. From the ECB's perspective, the decline in monthly APP size from €60bn down to €30bn will be partly offset by reinvestments of maturing QE bonds. The data published in early December for instance, highlight APP reinvestments of €132bn in the first eleven months of next year (averaging €12bn per month) and PSPP reinvestment of €104bn (averaging €9.5bn per month). But where these PSPP reinvestments will end up by country is unknown.

There are in fact further uncertainties when thinking about exactly how active the ECB will be in the individual markets from the start of the year. The first is that (as suggested by the Portuguese finance minister recently), potentially, some of the countries that have been consistently underbought relative to capital key – Finland, Portugal, Ireland, Slovenia – may not actually see a drop off in monthly PSPP quantities from January. The other point to keep in mind is that the ECB may choose not to reduce its private sector purchases (corporate bonds, ABS, covered bonds) and instead disproportionally squeeze its public-sector asset purchases. If these two things were to happen (see table below), then net new purchases in Germany, France, Italy and Spain (amongst others) may drop by close to 60% from the current level. This, essentially could be viewed as the worst possible scenario, and as mentioned, reinvestment may help fill some of the void in terms of the ECB's activity. Nonetheless, the ECB's day-to-day presence in some markets may end up being cut materially. Another potential scenario to consider is that the over-buying of France & Italy vs Germany & Spain which has built-up since 2015 is corrected somewhat in the coming year. The range of potential outcomes in terms of how PSPP is adjusted is broader than may be commonly understood.

PSPP breakdown by country (purchases over last 3 months)

euro, bn	Sep-17	Oct-17	Nov-17	3m Average	Potential net new purchases from January
Germany	11.7	11.6	11.6	11.6	4.3
France	11.1	10.5	10.4	10.7	3.9
Italy	9.2	9.1	9.1	9.1	3.4
Spain	6.1	6.0	6.0	6.0	2.2
Netherlands	2.6	2.6	2.6	2.6	1.0
Belgium	1.9	1.8	1.8	1.8	0.7
Austria	1.5	1.5	1.4	1.5	0.5
Finland	0.2	1.1	0.6	0.6	0.6
Portugal	0.5	0.5	0.5	0.5	0.5
Ireland	0.6	0.0	1.2	0.6	0.6
Slovenia	0.2	0.2	0.3	0.2	0.2
Supranationals	5.1	5.1	5.1	5.1	2.1
Total PSPP	50.8	50.2	50.7	50.6	20.0

Source: ECB and Jefferies International

GLOBAL FIXED INCOME

Country QE purchases and capital key deviations

ECB Capital Key (% of Eurosystem total)		Actual purchases (euro, bn)	Implied by capital key weighting (euro, bn)	Difference: actual vs implied (euro, bn)
25.6	Germany	448.7	451.7	-3.1
20.1	France	366.5	355.9	10.7
17.5	Italy	318.8	309.0	9.8
12.6	Spain	224.3	221.9	2.4
5.7	Netherlands	100.4	100.5	-0.1
3.5	Belgium	63.8	62.2	1.6
2.8	Austria	50.7	49.3	1.4
1.8	Finland	28.5	31.5	-3.0
2.5	Portugal	30.5	43.8	-13.2
1.6	Ireland	24.6	29.1	-4.5
0.5	Slovenia	6.7	8.7	-2.0

ECB's Asset Purchase Programme breakdown

(euro, bn)	March 2015 - March 2016 Average	Jan 2017	Feb 2017	March 2017	April 2017	May 2017	June 2017	July 2017	Aug 2017	Sept 2017	Oct 2017	Nov 2017
ABS	1.2	0.5	0.1	0.7	-0.4	-0.1	0.5	0.5	-0.2	-0.3	0.6	0.7
Covered Bonds	8.9	4.7	4.3	2.4	1.9	3.6	3.3	2.5	2.7	4.1	4.7	3.9
Supranationals	6.1	7.2	6.8	6.9	5.4	5.2	5.2	5.3	4.3	5.1	5.1	5.1
Corporate Bonds	na	8.4	7.8	8.3	6.8	7.6	7.0	5.6	4.7	8.0	6.9	7.2
Government/Agency Bonds	44.3	64.2	61.4	61.9	48.9	46.3	46.4	46.6	38.5	45.7	45.4	45.7
Total QE Purchases	60.5	85.0	80.5	80.3	62.6	62.5	62.4	60.4	50.0	62.6	62.7	62.6

The start of the year will also be significant in terms of any change in the holdings of sovereign debt by the euro area banks. As the table below highlights, there is strong seasonality in their behaviour around the turn of the year, as they tend to reduce their bond holdings in December. Whether this is followed by the usual re-load in January, however, is far from certain as the ECB's stimulus starts to weaken.

Monthly change in holdings of domestic sovereign debt by banks in Germany, France, Italy and Spain: strong seasonal drivers

Italy (euro,bn)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Jan	7.0	5.6	3.5	28.9	20.1	-3.7	15.8	6.3	4.0
Feb	3.8	7.8	-7.5	21.9	0.6	9.4	7.2	10.6	4.0
Mar	14.9	6.3	-8.4	22.1	12.1	3.2	-6.6	-6.0	8.2
Apr	0.3	10.6	1.8	4.0	14.9	9.1	-2.2	4.5	3.1
May	4.4	12.7	6.1	7.1	17.2	-2.2	-0.4	3.7	-9.4
Jun	1.4	4.1	5.4	8.2	6.7	-3.9	-10.5	5.5	-20.1
Jul	1.8	-0.8	6.5	0.4	-4.2	-2.0	1.6	-1.6	4.9
Aug	0.1	-4.5	7.0	-0.8	-1.3	2.9	-3.1	-12.6	-1.8
Sep	8.3	-1.0	-3.8	10.7	-2.7	-4.6	-3.0	-6.8	-5.3
Oct	0.9	0.0	-2.1	12.6	3.6	18.2	3.8	-2.1	-12.2
Nov	-1.9	3.9	-7.2	5.5	2.5	-2.9	2.2	-9.9	
Dec	-7.9	-4.2	4.4	-13.5	-16.5	-11.4	-18.3	-8.1	

France (euro,bn)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Jan	3	-3	0	3	8	6	10	16	-1
Feb	6	2	11	9	10	7	0	4	-2
Mar	6	1	-26	4	-2	-1	-6	-7	3
Apr	1	-4	2	-3	1	-1	-1	-1	0
May	2	2	-2	4	4	5	-1	-1	2
Jun	5	5	8	6	-6	-4	-3	-2	-6
Jul	0	-2	-8	-4	-21	-10	-4	-10	-7
Aug	6	-2	6	1	-1	4	7	-3	2
Sep	-1	2	2	10	-3	7	-7	-9	0
Oct	-5	4	0	5	7	0	-2	2	-6
Nov	-2	0	4	-2	1	7	0	-2	
Dec	-11	-13	2	-3	-3	-6	-10	4	

Spain (euro,bn)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Jan	5.9	-7.0	-1.6	23.2	7.0	18.4	-9.2	6.4	-1.7
Feb	7.1	-2.5	3.5	15.4	8.4	-0.8	-5.8	2.3	5.1
Mar	6.4	7.5	4.2	17.4	15.8	4.1	-0.2	4.8	-3.7
Apr	7.7	3.0	-1.8	-2.5	-2.0	0.4	-9.7	0.0	-4.2
May	0.8	4.0	4.3	-4.9	18.3	5.1	-1.4	-5.1	-2.1
Jun	8.3	1.6	10.1	0.9	15.3	-1.0	-0.7	5.1	-0.5
Jul	-3.7	-6.7	-3.5	-8.5	-4.4	-3.8	-9.3	-7.5	-0.3
Aug	1.3	-1.6	-5.3	-4.9	-3.6	6.7	-0.7	-3.8	1.4
Sep	8.2	5.3	-2.2	11.2	0.9	3.4	5.8	-4.7	1.7
Oct	3.4	0.8	-1.3	-0.8	-7.4	-4.2	-0.6	-7.6	-4.6
Nov	4.1	1.5	0.7	6.3	-10.7	-4.6	-0.7	-2.9	
Dec	2.9	0.5	27.7	-2.5	-19.7	-1.8	-7.8	-10.9	

Germany (euro,bn)	2009	2010	2011	2012	2013	2014	2015	2016	2017
Jan	6	4	1	4	-4	-2	2	-1	-5
Feb	-1	3	-2	2	2	1	3	0	-5
Mar	1	4	-1	3	0	0	-1	-3	0
Apr	6	2	2	0	0	1	0	-2	-4
May	2	4	1	-3	-5	2	-5	-3	2
Jun	3	16	-3	28	2	2	-2	-4	-6
Jul	1	0	-3	2	3	3	3	2	-4
Aug	-1	2	-3	2	1	1	4	-4	2
Sep	5	0	-1	3	-1	1	0	-2	-1
Oct	4	105	0	3	3	2	-1	-4	-1
Nov	2	-65	2	7	2	0	3	0	
Dec	-1	-22	-8	-8	0	-8	-5	-3	

Source: ECB and Jefferies International

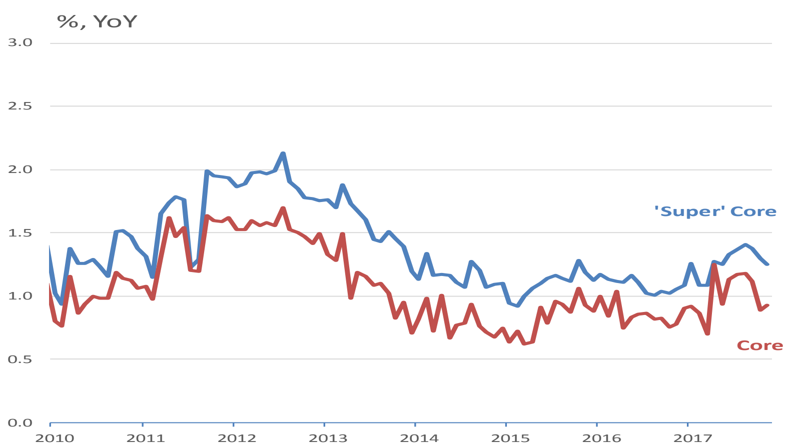
Making sense of 'super' core inflation

Inflation remains a contentious topic within the ECB, with officials likely attaching different degrees of confidence to how quickly it will bounce back. Despite this, however, a form of public consensus is now emerging. As expected, the ECB's new economic forecasts have inflation below target in 2018 and 2019, but this will not be the main determining factor driving policy next year. Instead, the ECB's communication and guidance will continue to evolve and put increasing emphasis on the declining slack in the labour market, the upward pressure this will eventually put on wages, and the impact on inflation – even if the lags involved are uncertain and longer than the official estimates envisage. With the inflation forecast horizon being effectively stretched out beyond the traditional 2-year time frame, the ECB can more convincingly argue that it has already provided enough stimulus to achieve its mandate (as illustrated by the bullish inflation forecasts for 2020). And this means shifting the market's mindset from expecting new measures such as additional monthly QE purchases, to focusing instead on the outstanding stock of QE and the constant level of the depo rate.

While this may feel like a significant change in focus and in guidance, the ECB is by no means a trailblazer, and it will simply follow a roadmap set by the US Fed and the Bank of England. Neither of these two central banks actually waited for stronger wage growth to materialise before moving to normalise policy, it's simply that the likelihood of such a development increased as spare capacity diminished. Indeed, the big macro theme in 2018 could well be considerably stronger wage growth in the US and the UK (with the BoE putting a lot of weight on the evidence it is gathering at the individual company level). And if this takes place, for the ECB, the light at the end of the tunnel will certainly feel brighter, and the confidence that the euro area will too eventually see higher rates of inflation should grow.

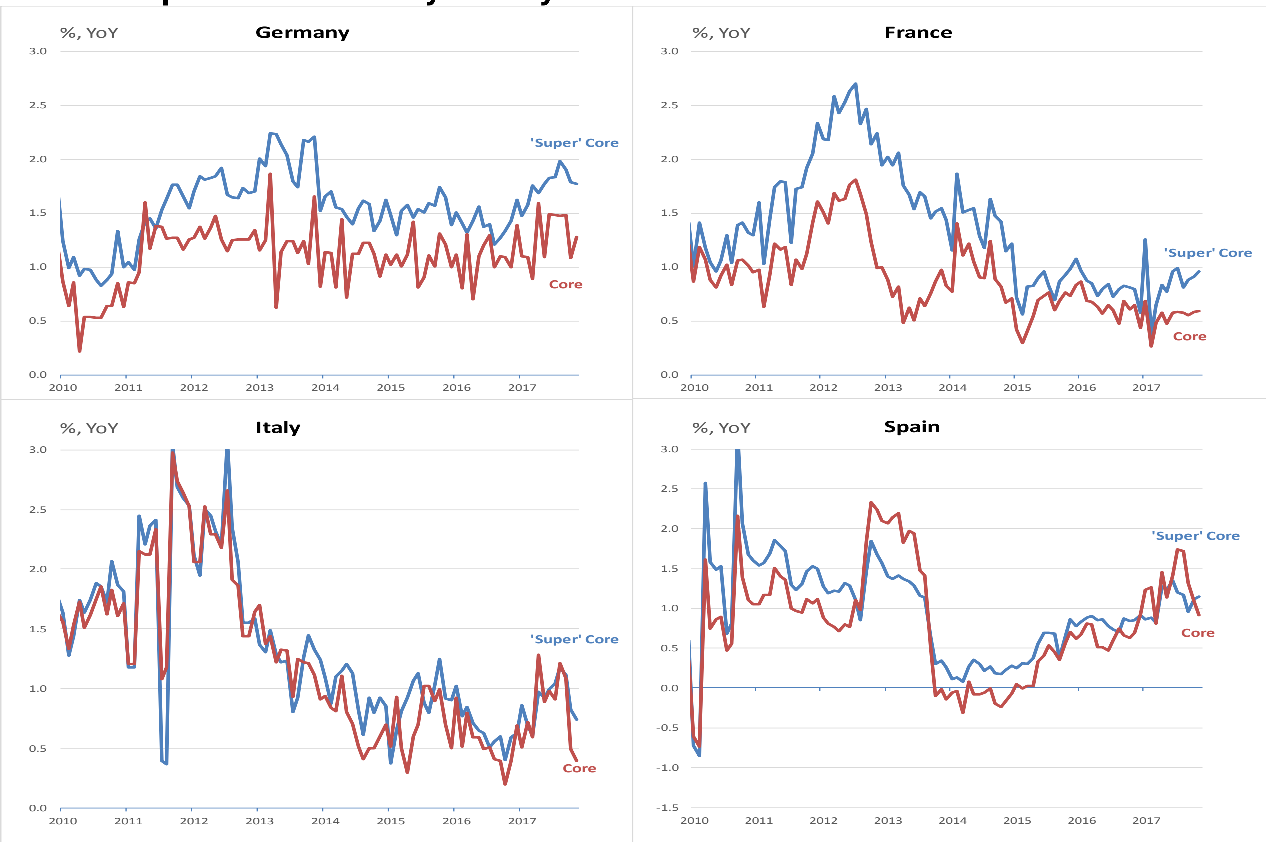
On this subject, one concept which we expect the ECB to focus more on going forward is that of 'super' inflation.

Euro area core and super core inflation



Source: Eurostat and Jefferies International

Core and super core inflation by country



Source: Eurostat and Jefferies International

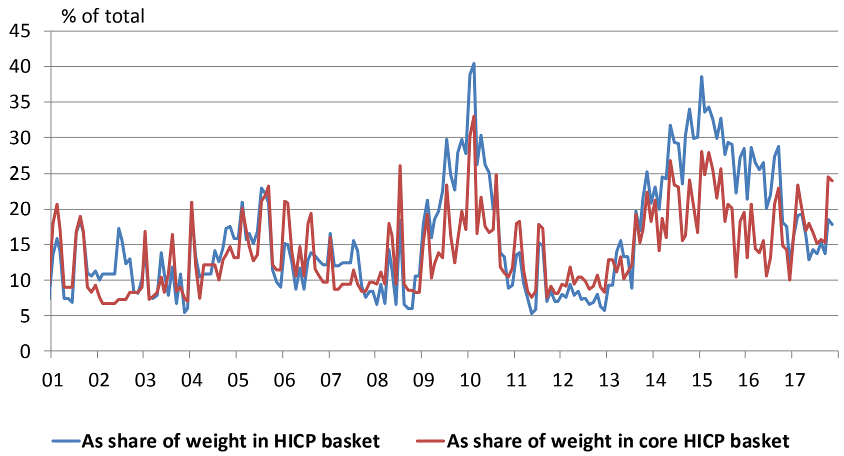
Initially flagged up in an ECB Monthly Bulletin three years ago, the measure of ‘super-core’ inflation, in addition to stripping out the volatile components of food, energy, alcohol and tobacco, also takes out those HICP components which are seen to be not particularly responsive to domestically generated price pressures. This, according to the ECB’s analysis, means also stripping out services such as utilities, insurance and health care. As well as goods with high import content such as computers and other electronic goods. This leaves around 45% of the HICP basket by weight, versus around 71% for the traditional core measure.

Looking at the latest data, ‘super’ core inflation in the euro area was printing at almost 1.5% a few months ago, before falling back more recently. In terms of the country data, significant difference persists (see charts above). For example, on our calculations, ‘super-core’ inflation is running at almost 2% YoY in Germany, but in France, Italy and Spain, these readings are substantially lower, and do not show nearly the same degree of upward momentum.

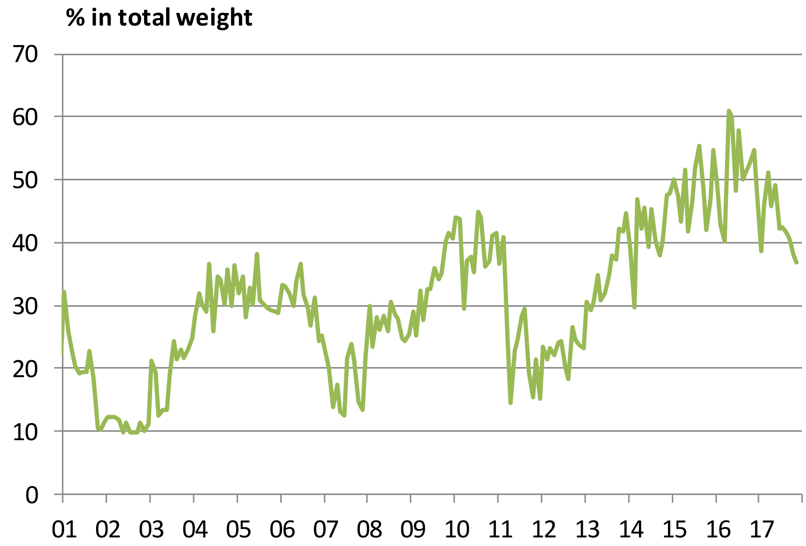
There are similar country divergences evident in our Deflation Monitor analysis. As a reminder, we calculate the inflation rates of the 94 components of the euro area HICP basket and the 73 components within the core HICP measure, and then track whether more or less of the basket is in deflation. The chart below shows the proportion of the euro area HICP basket where prices are falling year on year. We calculate two measures: the first, is the weight of items in deflation in the *total* HICP basket; and the second, the weight of items in deflation in the *core* part of the HICP basket (to strip away the movement of volatile food and energy components).

The key result for the month of November is that the proportion of the euro area HICP basket in deflation declined to 18% from 19% last month. In terms of specifically the core portion of the inflation basket, the share in deflation slowed to 24% from 25%. Encouragingly also, the proportion of the core inflation basket where inflation is running below 1% continues to decline. The interesting contrast here is with the US core CPI data, where the share of the basket where inflation is running below 1% has risen very sharply in the last four months (once we also exclude the housing component from the core CPI data) (see chart on the next page).

Share of euro area HICP basket in deflation

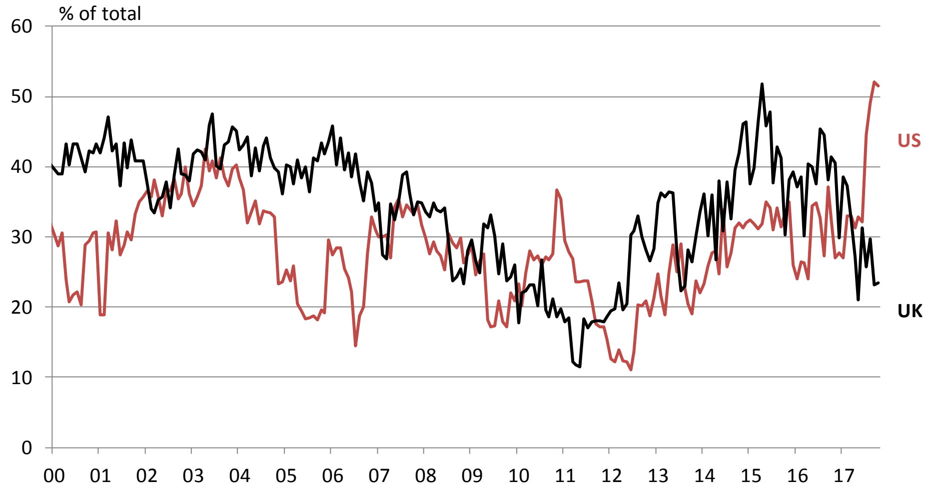


Share of euro area core HICP basket where inflation is below 1%

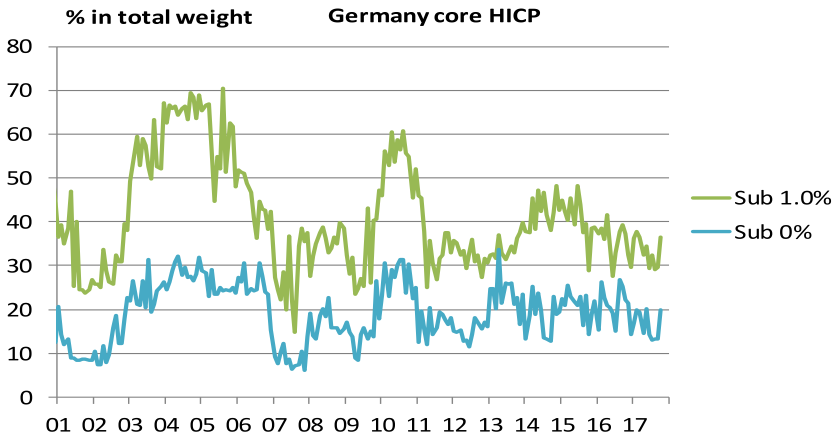


Source: Jefferies International

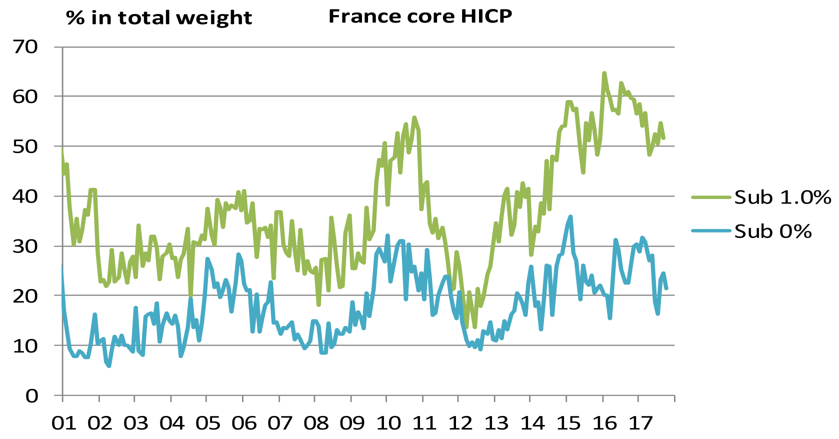
Share of US core CPI basket (excluding housing component) and UK core CPI inflation basket where inflation is below 1%



Share of Germany's *core* HICP basket with sub 1% and sub 0% inflation rate

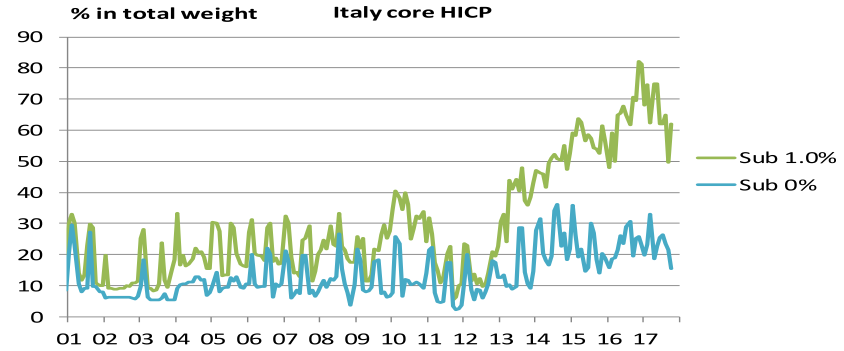


Share of France's *core* HICP basket with sub 1% and sub 0% inflation rate

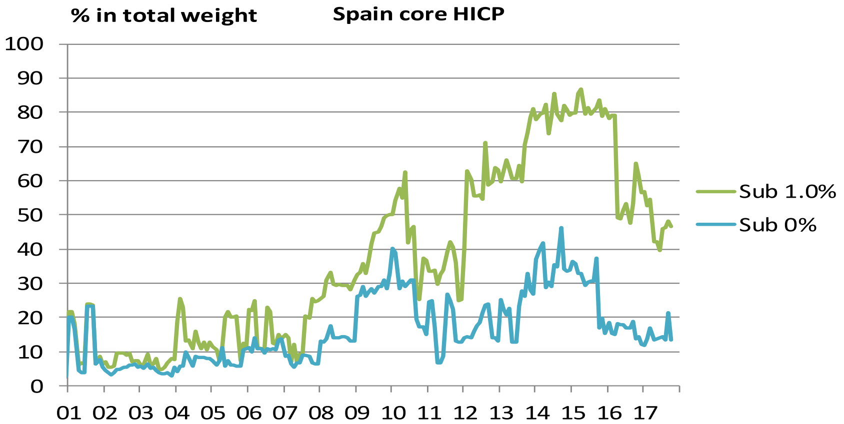


Source: Jefferies International

Share of Italy's *core* HICP basket with sub 1% and sub 0% inflation rate



Share of Spain's *core* HICP basket with sub 1% and sub 0% inflation rate



Source: Jefferies International

Finally, on the inflation front, the table below is a summary of the results for the weight of items in deflation in the *total* HICP basket across the various euro area countries, as well as the UK and the US.

Weight of inflation basket in deflation (%, by country)

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
Euro area	21.4	28.6	26.4	25.5	26.5	20.1	22.0	27.3	28.8	18.1	17.6	12.3	16.3	19.0	19.3	16.3	12.9	14.2	13.8	15.3	13.7	18.5
Germany	24.8	33.4	28.7	27.3	25.2	24.3	20.7	28.7	27.6	23.1	24.6	13.1	14.7	17.0	16.3	17.5	18.3	15.0	14.3	13.2	15.2	18.8
France	29.1	29.1	26.0	29.0	36.6	35.3	30.4	29.1	31.2	30.6	30.2	27.9	27.2	29.1	28.6	25.6	28.8	18.7	17.6	20.9	22.1	16.5
Italy	24.3	29.1	30.0	33.4	34.5	33.0	34.9	36.6	32.0	38.4	31.0	29.2	26.2	26.0	32.5	18.6	18.2	22.3	22.4	17.4	15.7	12.7
Spain	31.0	30.9	28.8	30.9	30.7	31.1	30.5	30.5	32.0	21.4	21.8	14.7	21.5	22.0	24.2	17.3	17.4	18.3	18.4	16.5	23.1	15.9
Netherlands	29.1	23.3	30.4	31.0	25.9	29.5	34.3	31.6	42.4	37.1	33.4	23.6	28.9	22.0	25.0	29.5	28.9	21.2	22.8	20.7	25.4	28.4
Greece	49.3	46.1	59.4	58.9	59.4	50.2	48.7	51.0	49.3	57.2	54.0	50.0	49.0	50.5	44.5	49.8	48.6	56.8	54.2	56.2	52.4	53.9
Portugal	37.1	41.9	39.5	36.3	44.4	40.0	32.7	34.7	37.9	40.8	41.8	41.0	37.1	31.8	31.9	32.5	28.4	37.2	30.7	23.0	25.2	20.6
Ireland	48.0	46.3	44.6	48.8	45.1	45.4	44.4	44.0	43.0	45.1	43.8	40.7	41.6	40.7	40.1	39.6	38.2	40.5	39.7	36.7	36.3	35.7
Slovenia	48.3	46.0	44.8	47.2	44.0	34.7	37.6	37.2	42.0	34.2	26.8	24.7	27.6	20.7	27.2	27.3	34.1	32.7	25.6	30.5	26.6	32.1
Cyprus	43.8	46.8	48.3	47.1	61.0	60.0	36.8	43.5	38.4	45.4	39.5	41.8	40.0	38.7	44.2	43.5	40.6	37.9	48.9	43.5	50.7	44.6
UK	33.4	36.2	32.4	35.1	40.7	40.6	50.2	44.6	34.9	43.8	34.6	31.1	32.7	26.7	16.1	13.3	10.1	12.3	13.0	11.1	8.8	6.7
US	23.1	24.7	24.3	24.0	29.0	28.5	28.6	25.0	27.4	25.5	18.8	18.1	18.0	20.1	19.3	18.3	17.7	23.2	23.4	22.7	23.1	22.4

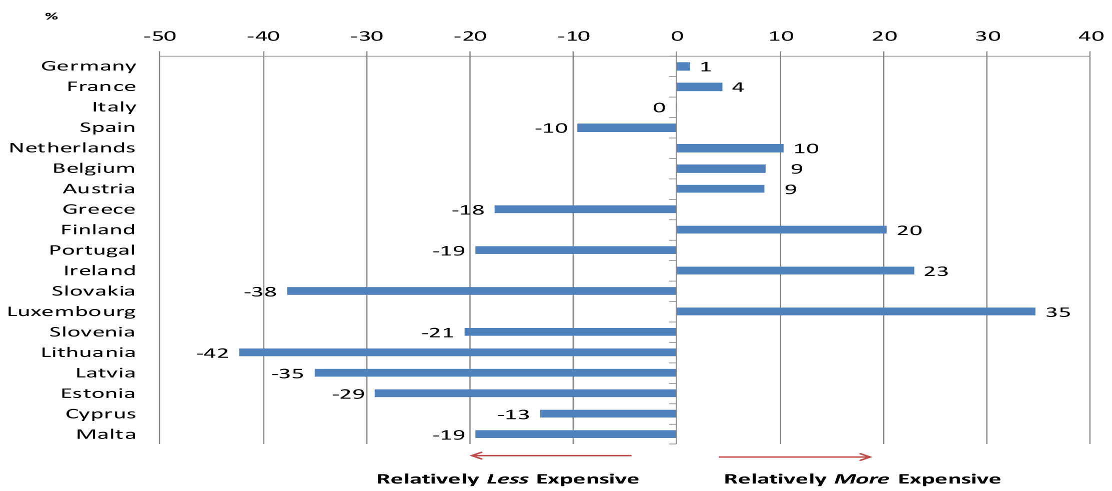
Source: Jefferies International

Price convergence as a driver of euro area inflation

In addition to thinking about some of the more conventional drivers of euro area inflation, occasionally it is also interesting to revisit perhaps less obvious drivers, such as country price level differentials. For example, over time (as living standards and national tax codes harmonise, and trade becomes less constrained by borders and distance), one could expect that prices across the euro area economies should converge toward a single price point – much the same way that prices across the different regions of an individual country are very similar. This means that countries within the euro area which are expensive relative to the euro area average should see their relative prices adjust lower toward the average (and thus they will experience lower than average inflation rates); while the relatively cheaper countries should see their relative prices move up toward the average (and thus they will experience higher than average inflation rates). For sure, first and foremost, inflation in each country will be driven by the domestic factors such as the degree of spare capacity in the economy, the improvements in productivity vs wage growth, ageing, migration etc.; however, beyond these factors, relative price comparisons with close geographical neighbours will make a difference.

For this purpose, Eurostat helpfully monitors the cost of goods and services across the region, with the chart on next page highlighting the difference between some of the largest economies. For instance, in 2016, the same basket of goods and services cost almost 23% more in Ireland and 20% more in Finland than the euro area average. Similarly, prices in Portugal, Greece and Slovenia were around 20% less expensive than the average. While of the larger economies, prices in Spain are 10% below the euro area average; in France they are 4% above the average; while in Germany and Italy they are more or less in line with the average.

Relative price of an average consumer basket in 2016 (compared to the euro area average)

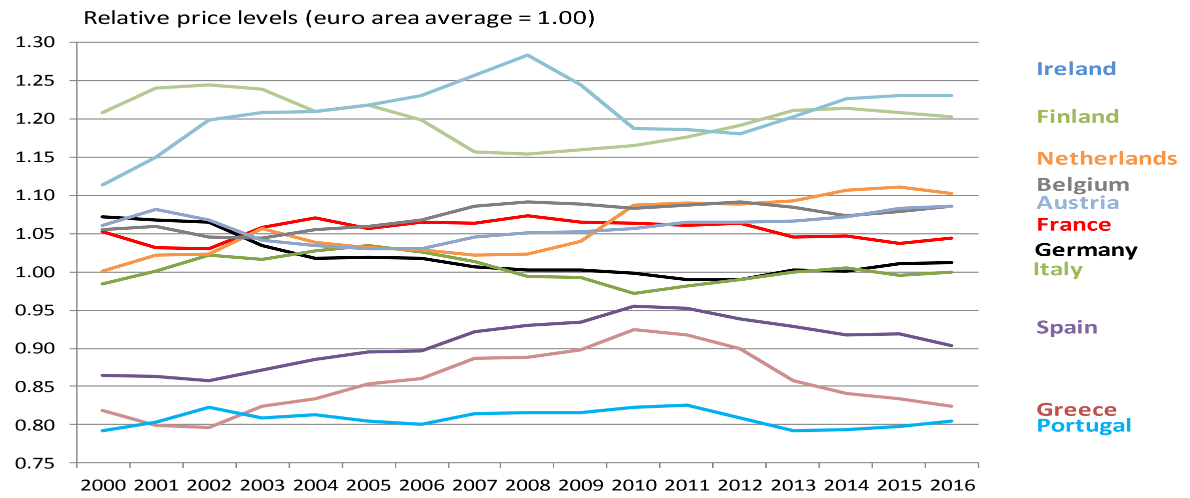


Source: Eurostat and Jefferies International

GLOBAL FIXED INCOME

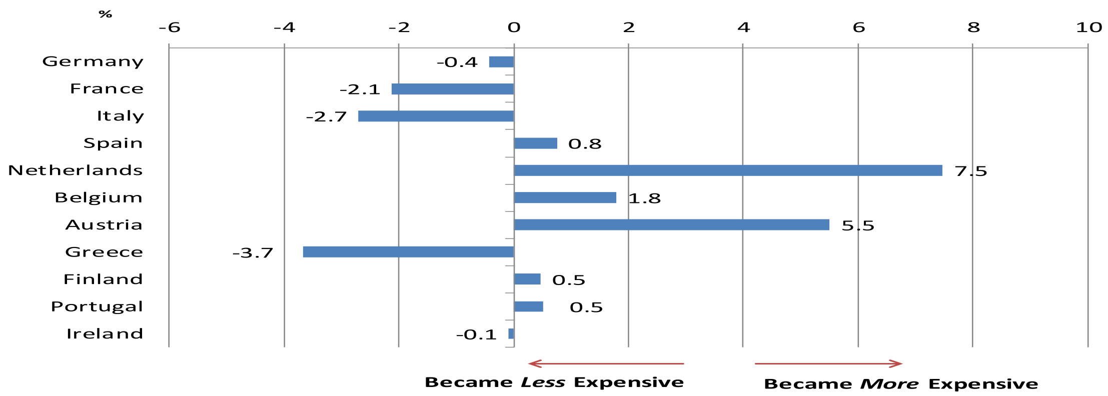
In terms of the recent history, the chart below looks at how the prices in these individual economies had evolved since the start of EMU; and the first chart on the next page looks at whether prices had become relatively more or less expensive over the past ten years. For instance, in Ireland, immediately after the crisis, prices adjusted sharply lower between 2008 and 2012 (down 10 percentage points (pp) in relative terms), but have risen by 5pp relative to the rest of the euro area since. Similarly, over the past decade there had been a sizeable relative appreciation in prices in the Netherlands, in Austria, in Belgium. At the other end of the scale are France, Italy and, unsurprisingly, Greece. In terms of Germany, relative prices there have barely changed over the last decade, but this of course is somewhat counterintuitive, given how much the economy had outperformed the rest of the euro area over the same period. It certainly begs the question if Germany can't generate higher than average inflation rates, then what country can?

Relative price movements since 2000



Source: Eurostat and Jefferies International

Which countries had become more and less expensive relative to the euro area average – change over the past ten years

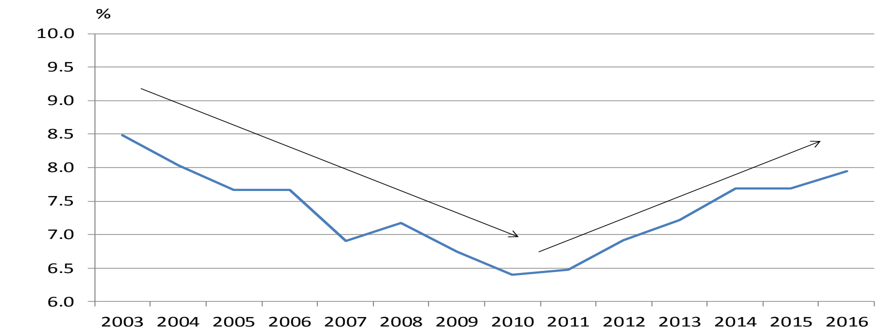


Source: Eurostat and Jefferies International

When we examine the euro area data in aggregate, these relative price movements produce an interesting result regarding the dispersion of prices across the bloc. Notably, while prices across the 11 largest euro area economies initially converged after the introduction of the euro, over the past six years they had had started to move further apart again (see below). As mentioned, the theory suggests that the introduction of a single currency would allow for more transparency and that prices across the euro area would move closer together. The likely direction being that for tradeable goods (washing machines, electronics) prices in the more expensive locations should fall to the price being offered in the least expensive location. While in non-tradeable goods (electricity, water) and services (restaurants, hotels), the expectations would be for prices to converge somewhere toward the average prices.

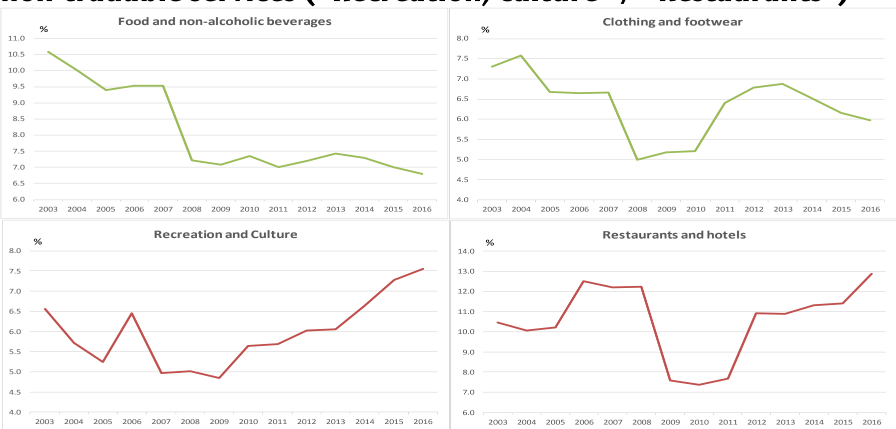
Yet in the real world, the theory of how a single currency should influence prices has only party come to pass, and overall, prices across the euro area vary as much now as they did a decade ago. The fact that prices in the euro area are diverging rather than converging is not necessarily a surprise given that some economies has significantly outperformed others. But, nonetheless, it appears that the introduction of the euro had not delivered a greater uniformity of prices; or the process is on pause in any case.

Price dispersion continues to rise: weighted standard deviation of country price levels



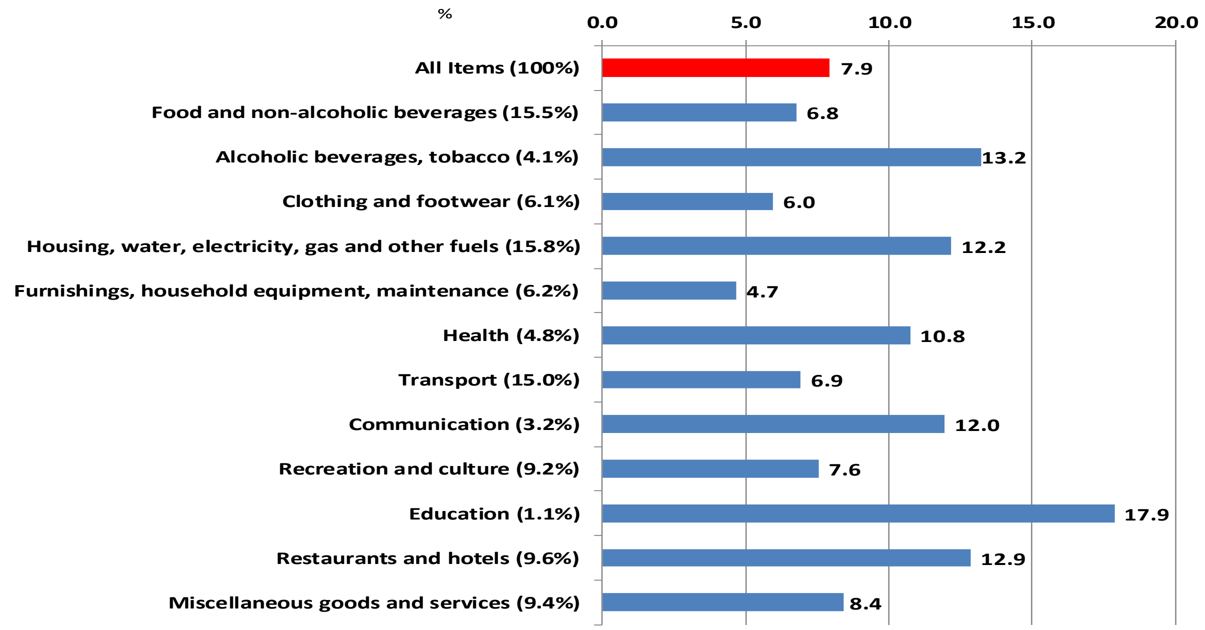
Source: Eurostat and Jefferies International

Price dispersion in tradable goods (“Food” / “Clothing”) and non-tradable services (“Recreation, culture” / “Restaurants”)



Source: Eurostat and Jefferies International

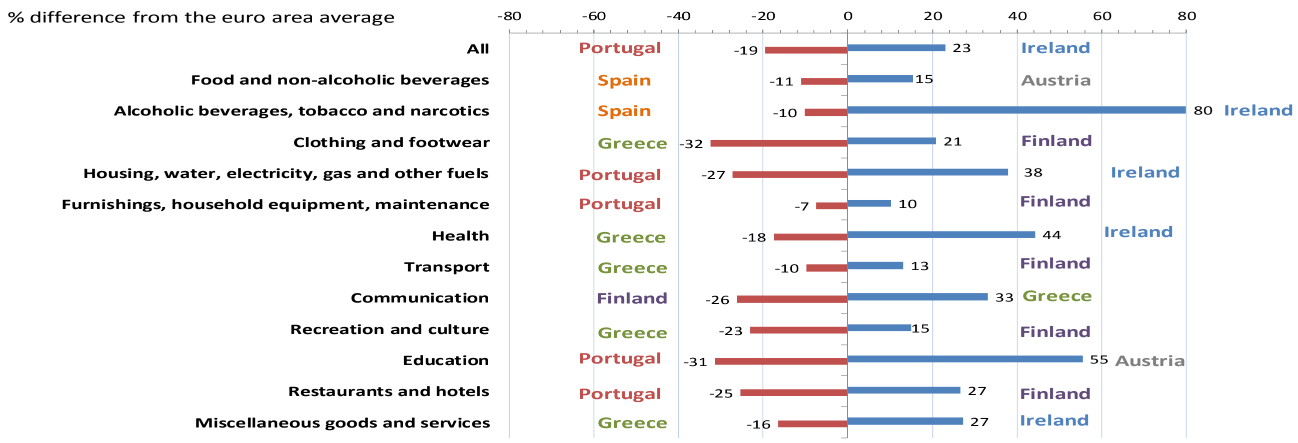
Price dispersion across the main categories of consumption (weighted standard deviation across euro area economies; the 2016 weight in euro area HICP in brackets)



Source: Eurostat and Jefferies International

In terms of the greatest variation in prices, the largest country differences are in the cost of services like "Education" and "Health", but also in goods like "Alcohol and Tobacco" where local taxes can vary significantly between countries. In contrast, for highly tradeable goods like "Furnishings and household equipment" the country differences are significantly smaller. Along these lines, the chart below shows the least and most expensive countries to do go shopping, across the main components of the HICP basket.

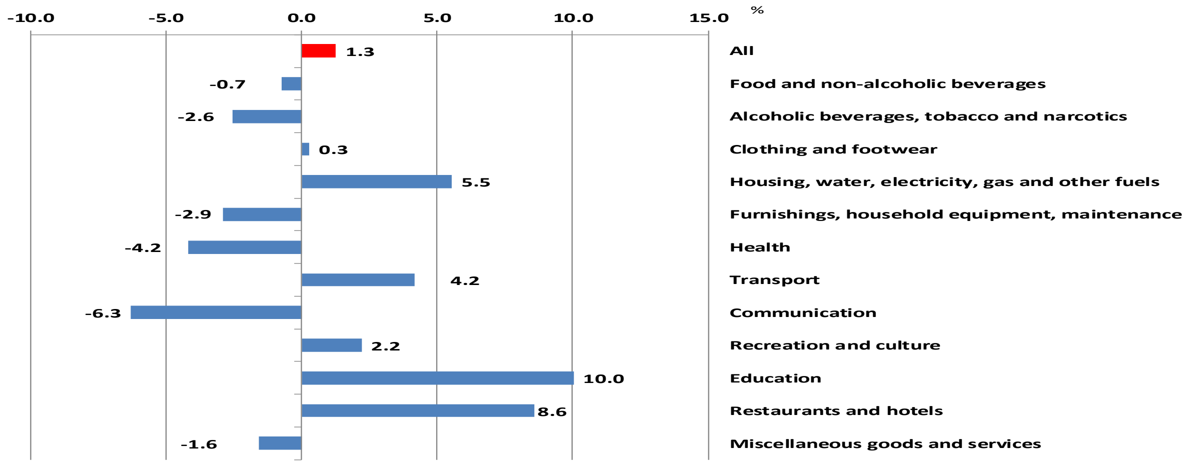
Countries that are most and least expensive relative to the euro area average (list of 11 largest euro area economies)



Source: Eurostat and Jefferies International

So, what about Germany? Inflation and the level of prices there certainly 'feels' too low given the country's economic outperformance and its low unemployment rate. But as the chart below highlights, there are in fact significant variations in relative pricing depending on which component of consumption one looks at.

The cost of Germany's consumer prices in 2016 compared to the euro area average (by category of consumption)



Source: Eurostat and Jefferies International

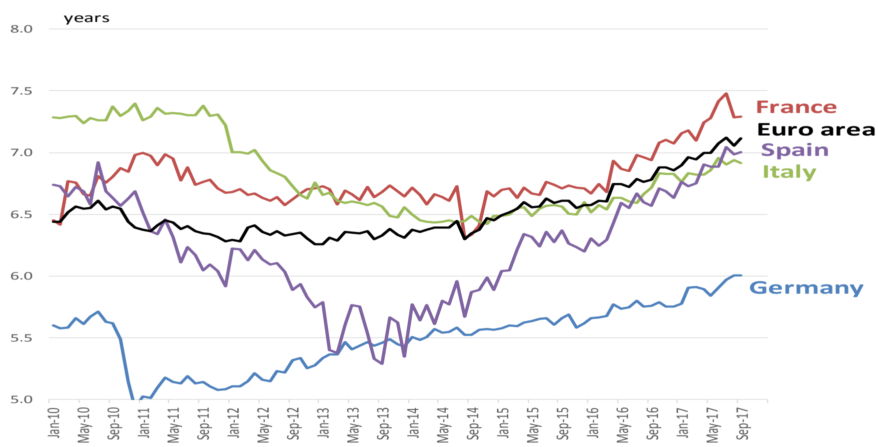
At an aggregate level, the level of prices in Germany is almost in line with the euro area average. There are some items in the consumption basket which cost considerably more in Germany than they do in the euro area: "Education" for instance is relatively expensive, as is "Housing and utility bills", and so are "Restaurants and hotels". But for a number of other goods and services, Germany is indeed a relatively cheap place to buy things. The cost of food, alcohol, furnishings, health services and communication services are all below the euro area average.

There is undoubtedly a wide variety of factors in play here: geography, openness to trade, tax policies, etc. But as we also keep stressing, Germany is a long way ahead of France, Italy and Spain in terms of the share of the population using the internet for shopping. And so, where applicable, and where internet is used to compare prices and to increase competition, then it should also help push down on inflation, which is perhaps part of the lower-than-expected inflation story in Germany.

Borrowing costs, demographics and inflation

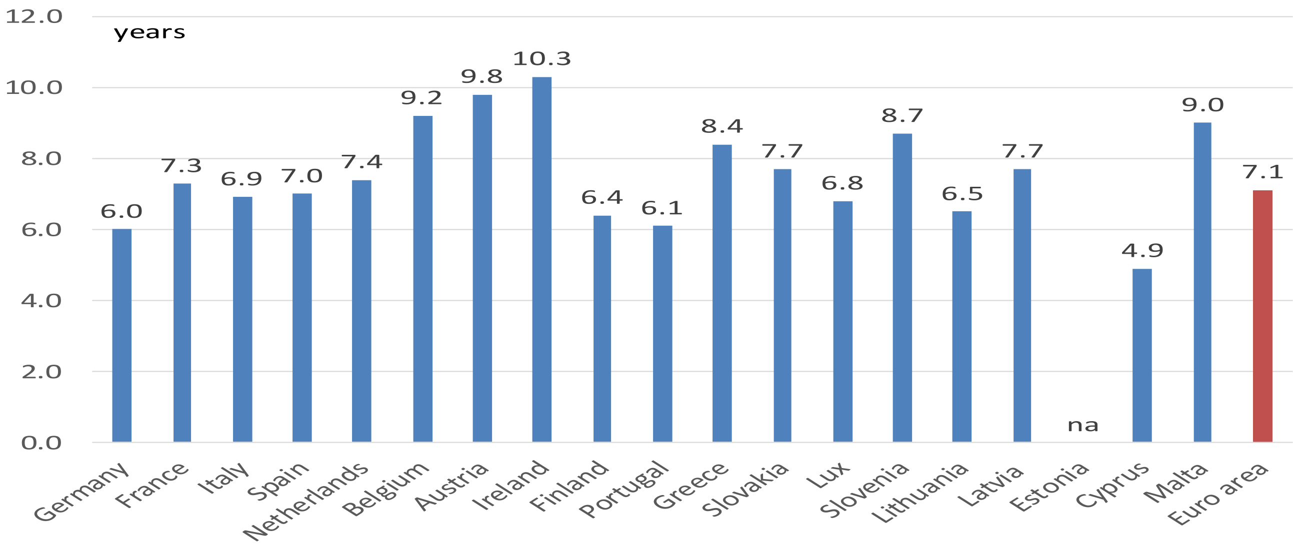
One question which will undoubtedly be asked as the end of the QE draws near, is what have the ECB policies helped achieve since QE commenced in early 2015? One politically important observation is that QE has benefited most euro area countries in a fairly uniform way. For instance, there has been a synchronised lengthening of debt maturity across the euro area governments (see chart below). Likewise, the effective interest rate being paid on government debt has fallen by a similar amount across the 19 euro area countries since the start of 2015 (see final chart on the next page).

Average residual maturity of government debt securities

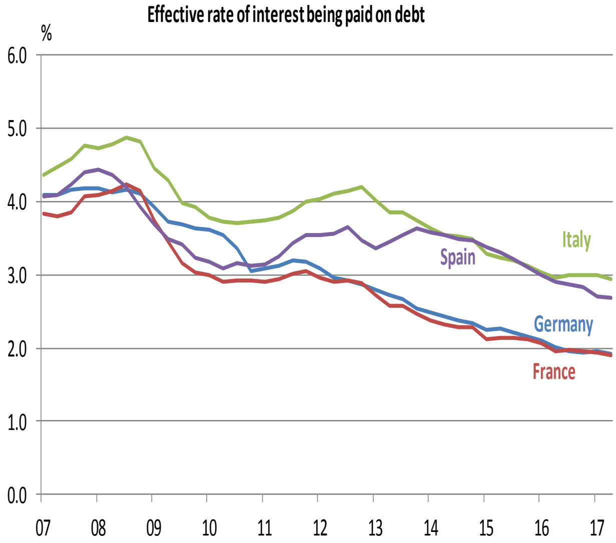


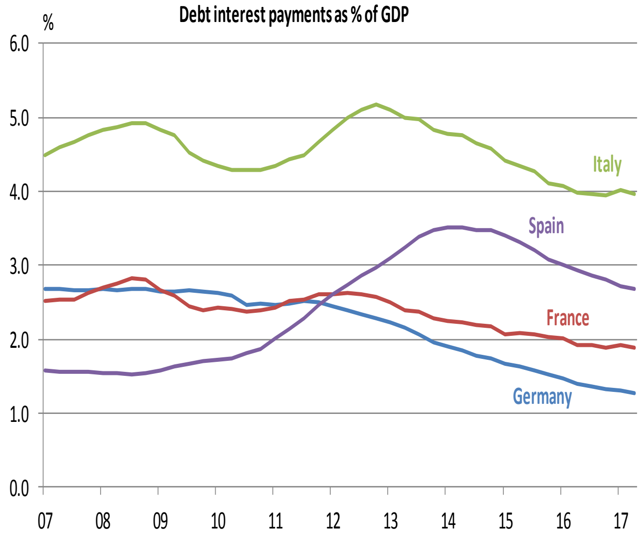
Source: ECB and Jefferies International

Average residual maturity of government debt securities

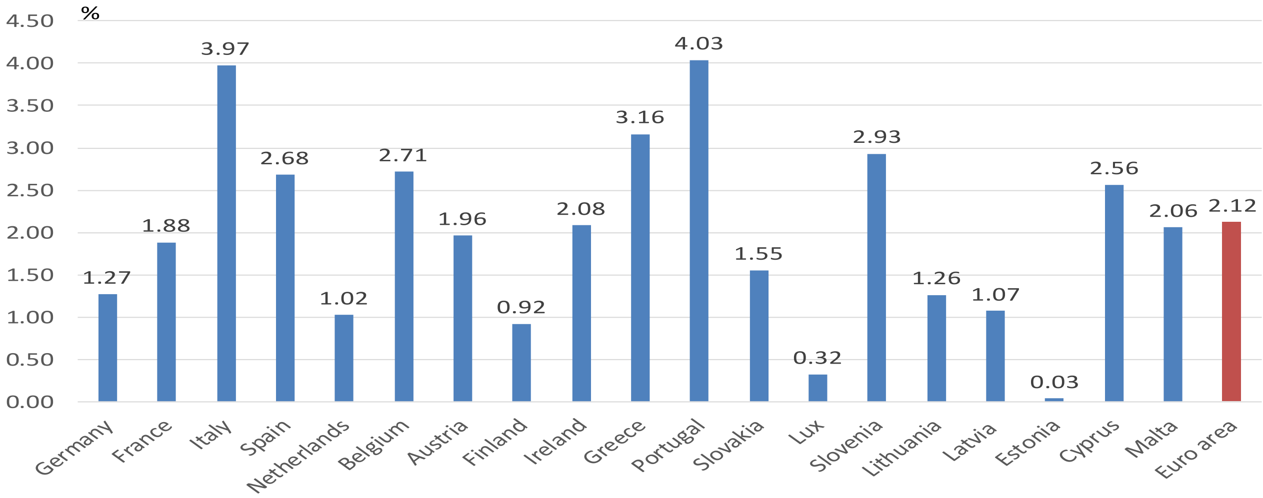


Debt service costs



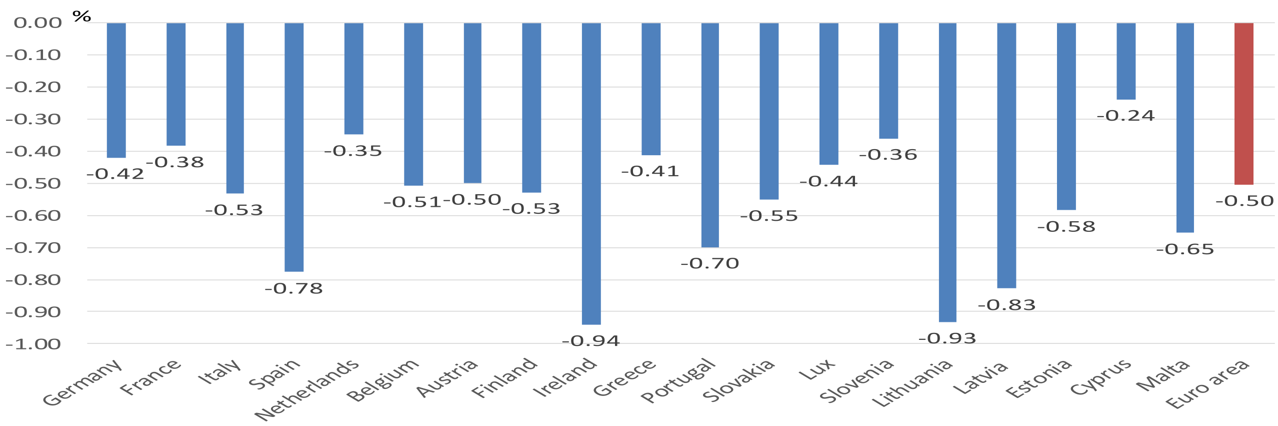


Debt interest payments as share of GDP (latest 4Q average)



Source: Eurostat and Jefferies International

Decline in effective interest rate paid on debt since start of 2015

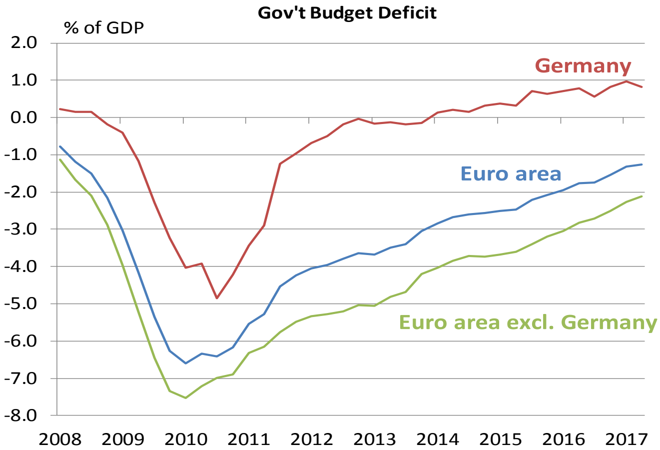


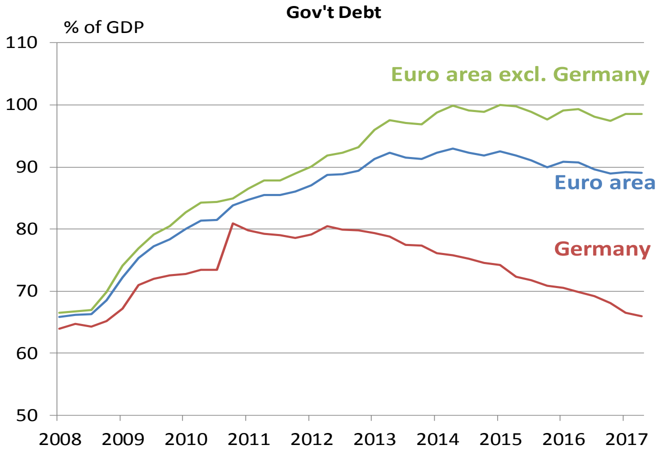
Source: Eurostat and Jefferies International

Obviously, borrowing costs and debt interest payments as a share of GDP continue to differ substantially across the currency bloc; but in terms of the change in interest rate being paid on debt, the data show pretty similar outcomes. For example, since the start of 2015, the effective interest rate paid on debt in Germany had fallen by 0.42%, in France by 0.38%, in Italy by 0.53%, and in Spain by 0.78% (see chart above).

In terms of the overall fiscal position, Germany's budget surplus continues to flatter the overall picture for the euro area. Ex-Germany, the budget deficit in the rest of the euro area still runs at 2% of GDP; while Debt/GDP ratio is little changed relative to the peak, running at just under 100%. For Germany, one factor which continues to puzzle (and frustrate) is the low level of government investment, which currently runs at just over 2% of GDP, which is basically the same level for the past decade (see first chart on the next page). The argument that the German government should be raising its expenditure and boosting domestic demand is well rehearsed, but whether it will gain more traction within the new coalition remains to be seen.

Euro area budget deficit and debt



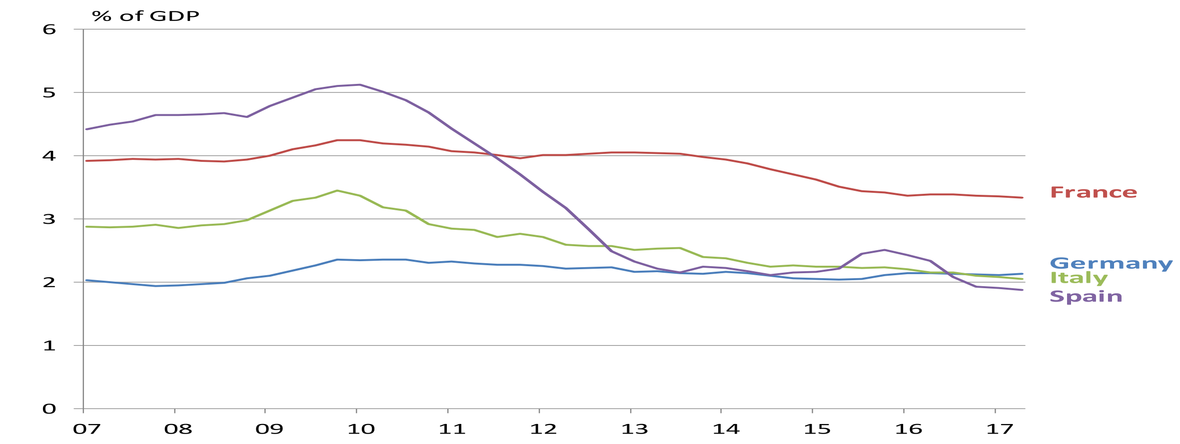


Source: Eurostat and Jefferies International

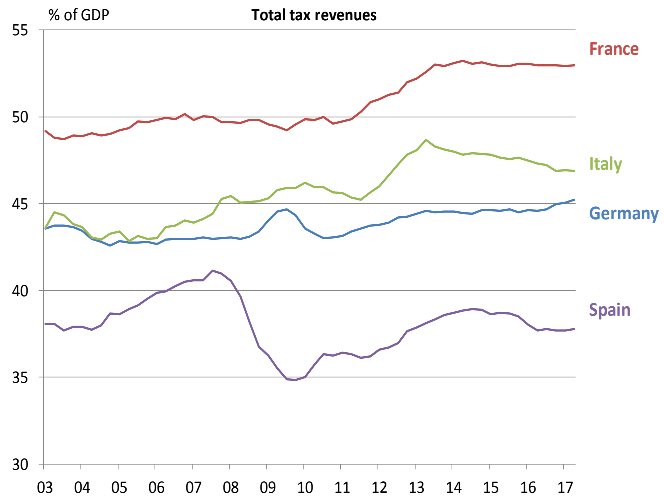
This specific example of Germany, however, extends to the structure of public sector finances more generally, being just one example of the fact that across the four largest euro area economies the level of overall taxation and expenditure varies substantially. Germany and Italy run their fiscal policies in the most similar way, with taxes and expenditure (excluding debt interest payments) running at around 45% of GDP mark. In Spain, this figure is closer to 38% of GDP; while in France this figure has risen from about 50% of GDP mark before the crisis, to closer to 53-54% at present.

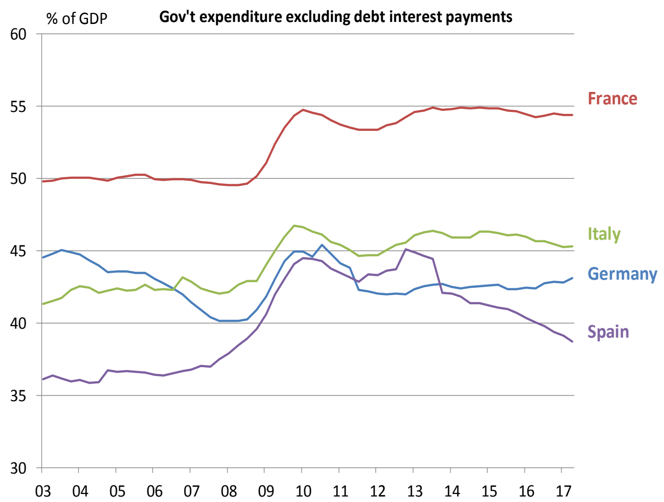
Which means that for all the talk of the euro area moving towards closer fiscal cooperation, the conditions for that are arguably worse now than they were a decade ago. Certainly, anything which means some sort of fiscal transfer between the member states will face public opposition given the extremely large differences between the levels of taxation and expenditure that exist across the euro area at present. As we've long argued, the idea that the euro area may in time move towards a model of common debt issuance is plausible because the transfer costs involved are relatively small; but in practice the concept remains a very hard political sell because the social models are so different from country to country.

Government investment as share of GDP



Tax revenues and expenditure





Source: Eurostat and Jefferies International

Thinking about the potential leap towards mutualising debt, another factor that will make it a challenge is the fact that the future demographic projections vary so significantly by state. For instance, by 2050, France, the Netherlands, Belgium, Austria and Ireland are all expected to have larger working age populations than they have today. On the other hand, by then, Germany is forecast to see a decline in working age population of over 10%; in Italy and Spain the figures are over 15%; and in Portugal and Greece the numbers are closer to 30%. So, debt mutualisation today is partly a promise to pay for ballooning foreign pensions of tomorrow, not an attractive proposition for countries with better demographics.

Population projections and ageing

Children (aged under 15)	2017	2030	2040	2050
Germany	10,924,145	11,878,654	11,210,894	10,840,466
France	12,303,137	12,399,192	12,827,520	12,990,165
Italy	8,214,591	7,008,453	7,062,746	7,159,110
Spain	6,986,400	6,485,371	7,066,571	7,703,087
Netherlands	2,778,473	2,949,116	3,097,141	2,988,315
Belgium	1,930,877	2,025,712	2,084,000	2,153,522
Austria	1,251,924	1,428,292	1,423,210	1,394,112
Ireland	1,046,572	962,843	926,829	1,045,241
Finland	895,075	883,656	869,027	858,866
Portugal	1,431,516	1,124,836	1,098,489	1,053,263
Greece	1,544,327	1,159,158	1,073,526	1,079,281
United Kingdom	11,627,373	12,163,192	12,504,467	12,747,471

Working-age population (aged 15-64)	2017	2030	2040	2050
Germany	54,279,104	50,903,331	48,796,629	47,523,810
France	41,807,805	41,613,328	41,421,732	42,313,171
Italy	39,009,792	36,963,361	33,638,951	31,886,282
Spain	30,613,232	28,985,365	26,742,692	25,638,275
Netherlands	11,148,167	11,156,782	11,072,179	11,399,838
Belgium	7,332,441	7,536,936	7,691,976	7,863,177
Austria	5,888,533	6,079,822	6,094,437	6,092,883
Ireland	3,027,275	3,249,666	3,271,131	3,194,887
Finland	3,457,299	3,385,651	3,383,822	3,318,567
Portugal	6,701,327	6,095,403	5,433,129	4,876,407
Greece	6,873,893	6,085,697	5,268,526	4,584,939
United Kingdom	42,307,114	44,298,455	45,124,588	46,293,599

Elderly (aged 65+)	2017	2030	2040	2050
Germany	17,555,176	21,831,313	24,126,119	24,322,697
France	12,844,103	16,512,634	18,666,273	19,073,496
Italy	13,535,239	16,378,661	19,280,305	19,922,745
Spain	8,847,628	11,639,370	14,435,529	15,916,115
Netherlands	3,164,012	4,287,545	4,866,323	4,847,314
Belgium	2,098,037	2,701,476	3,068,283	3,256,456
Austria	1,627,505	2,167,458	2,569,976	2,760,696
Ireland	638,984	933,966	1,198,420	1,453,302
Finland	1,151,217	1,428,301	1,469,529	1,510,094
Portugal	2,176,105	2,659,934	3,021,990	3,186,680
Greece	2,316,130	2,699,803	3,077,921	3,254,325
United Kingdom	11,896,160	15,102,344	17,375,297	18,527,518

Total Population Projections	2017	2030	2040	2050
Germany	82,758,425	84,613,298	84,133,642	82,686,973
France	66,955,045	70,525,154	72,915,525	74,376,832
Italy	60,759,622	60,350,475	59,982,002	58,968,137
Spain	46,447,260	47,110,106	48,244,792	49,257,477
Netherlands	17,090,652	18,393,443	19,035,643	19,235,467
Belgium	11,361,355	12,264,124	12,844,259	13,273,155
Austria	8,767,962	9,675,572	10,087,623	10,247,691
Ireland	4,712,831	5,146,475	5,396,380	5,693,430
Finland	5,503,591	5,697,608	5,722,378	5,687,527
Portugal	10,308,948	9,880,173	9,553,608	9,116,350
Greece	10,734,350	9,944,658	9,419,973	8,918,545
United Kingdom	65,830,647	71,563,991	75,004,352	77,568,588

Change in working-age population relative to 2017 (%)	by 2030	by 2040	by 2050
Germany	-6.2	-10.1	-12.4
France	-0.5	-0.9	1.2
Italy	-5.2	-13.8	-18.3
Spain	-5.3	-12.6	-16.3
Netherlands	0.1	-0.7	2.3
Belgium	2.8	4.9	7.2
Austria	3.2	3.5	3.5
Ireland	7.3	8.1	5.5
Finland	-2.1	-2.1	-4.0
Portugal	-9.0	-18.9	-27.2
Greece	-11.5	-23.4	-33.3
United Kingdom	4.7	6.7	9.4

Old age dependecy ratio (those aged 65+ as a share of working-age population) (%)	2017	2030	2040	2050
Germany	32	43	49	51
France	31	40	45	45
Italy	35	44	57	62
Spain	29	40	54	62
Netherlands	28	38	44	43
Belgium	29	36	40	41
Austria	28	36	42	45
Ireland	21	29	37	45
Finland	33	42	43	46
Portugal	32	44	56	65
Greece	34	44	58	71
United Kingdom	28	34	39	40

Source: Eurostat and Jefferies International

As the chart on the next page highlights, at the heart of these country discrepancies is the fact that fertility rates across the euro area continue to vary, and while Germany is one of the few euro area countries where the rate of fertility has risen over the past decade, it still significantly lags that on France for example.

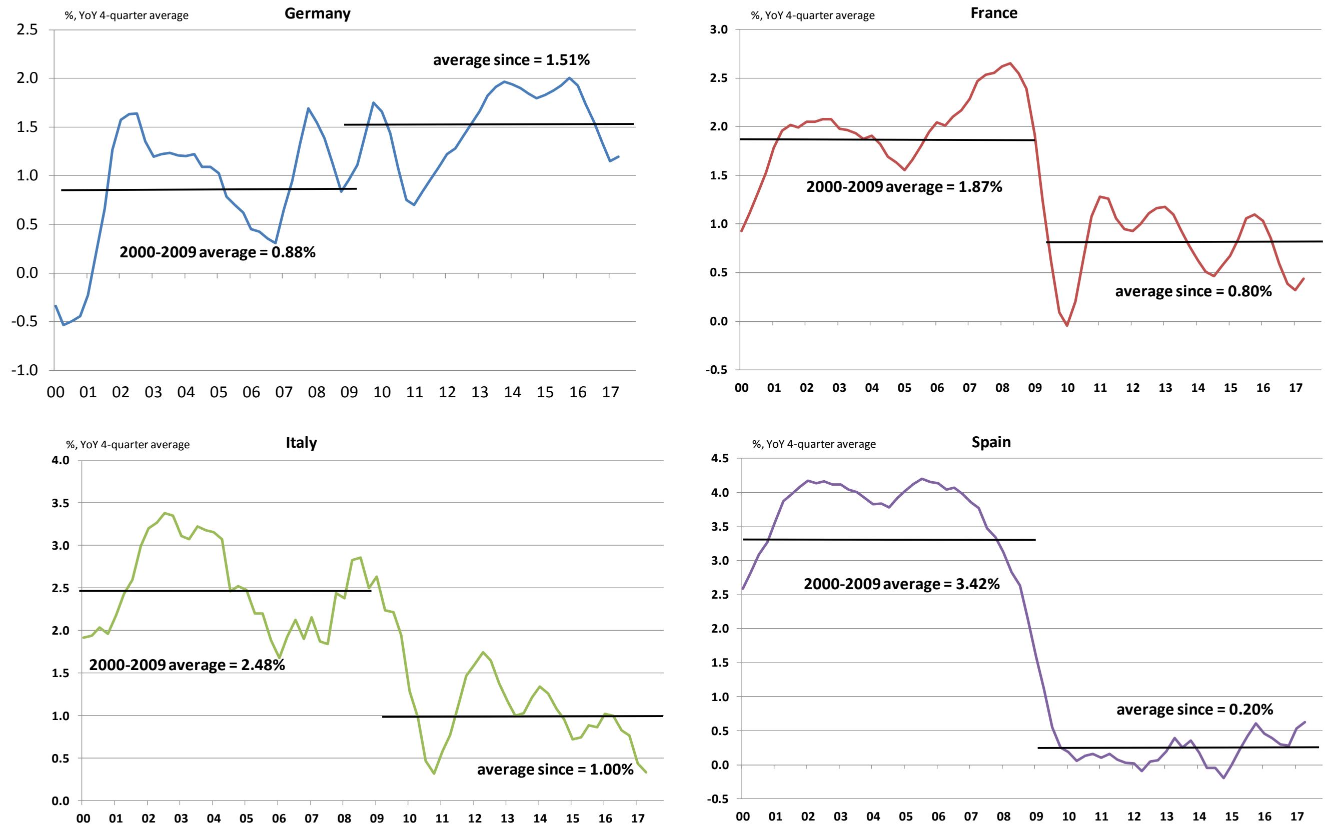
Total fertility rates and mean age of women at childbirth

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Change since 2008	Mean age of women at birth of first child (years)
Germany	1.38	1.34	1.33	1.37	1.38	1.36	1.39	1.39	1.41	:	1.47	1.50	0.12	29.5
France	1.89	1.94	2.00	1.98	2.01	2.00	2.03	2.01	2.01	1.99	2.01	1.96	-0.05	28.5
Italy	1.26	1.34	1.37	1.40	1.45	1.45	1.46	1.44	1.43	1.39	1.37	1.35	-0.10	30.8
Spain	1.22	1.33	1.36	1.38	1.45	1.38	1.37	1.34	1.32	1.27	1.32	1.33	-0.12	30.7
Netherlands	1.72	1.71	1.72	1.72	1.77	1.79	1.79	1.76	1.72	1.68	1.71	1.66	-0.11	29.7
Belgium	1.67	1.76	1.80	1.82	1.85	1.84	1.86	1.81	1.79	1.75	1.74	1.70	-0.15	28.7
Austria	1.36	1.41	1.41	1.38	1.42	1.39	1.44	1.43	1.44	1.44	1.47	1.49	0.07	29.2
Ireland	1.89	1.86	1.91	2.01	2.06	2.06	2.05	2.03	2.00	1.96	1.94	1.92	-0.14	29.6
Finland	1.73	1.80	1.84	1.83	1.85	1.86	1.87	1.83	1.80	1.75	1.71	1.65	-0.20	28.8
Portugal	1.55	1.41	1.37	1.35	1.39	1.34	1.39	1.35	1.28	1.21	1.23	1.31	-0.08	29.5
Greece	1.25	1.34	1.40	1.41	1.50	1.50	1.48	1.40	1.34	1.29	1.30	1.33	-0.17	30.2
United Kingdom	1.64	1.76	1.82	1.86	1.91	1.89	1.92	1.91	1.92	1.83	1.81	1.80	-0.11	28.7

Source: Eurostat and Jefferies International

Finally, the charts below offer a reminder of what may ultimately dictate perceptions of debt suitability in the euro area. While demographics are clearly important, ultimately, these dynamics are outside the control of the authorities. What is arguably much more within their reach is to help push up inflation rates and to boost nominal GDP growth. And as poor demographics are set to become a bigger and bigger challenge, the importance of sustaining much higher rates of inflation also grows in importance.

GDP deflators across the euro area

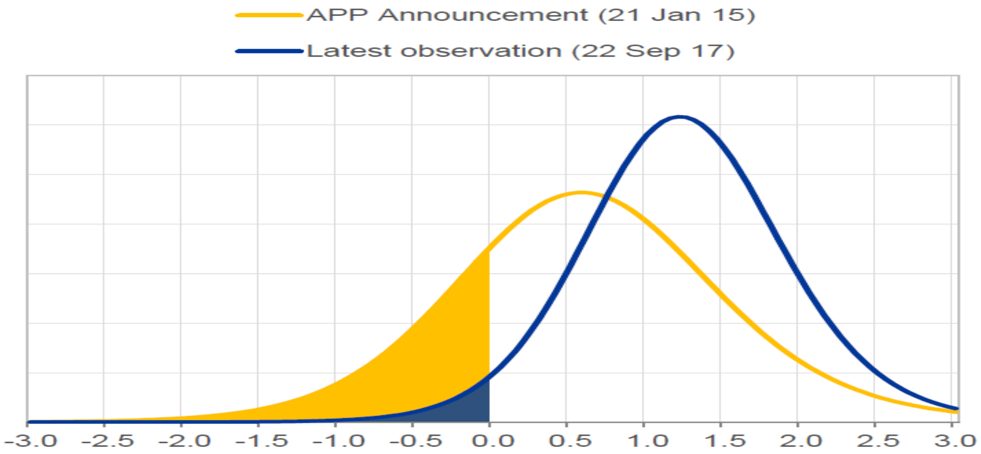


Source: Eurostat and Jefferies International

Digging into the euro area's job growth mix

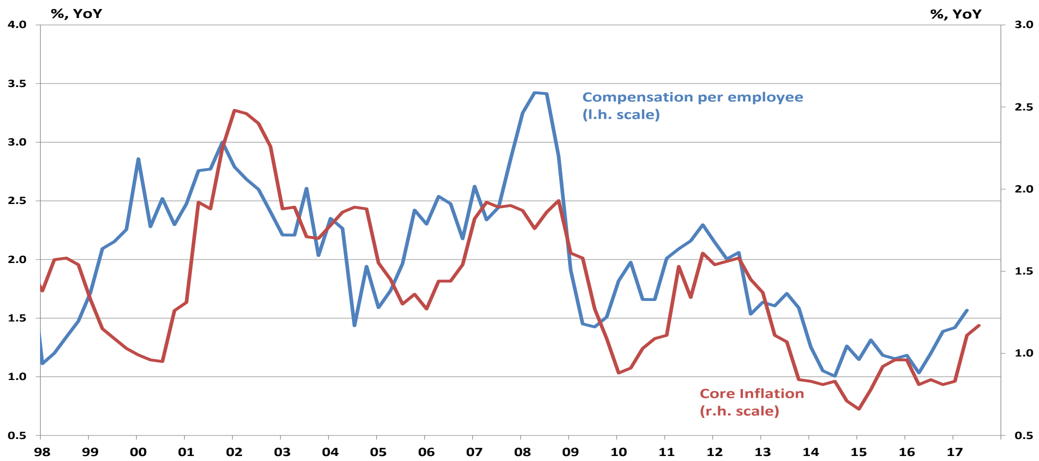
In terms of activity indicators, the euro area economy is showing the most momentum for more than a decade. Yet on the inflation front, the Governing Council is well-aware of the challenge that still lies ahead: falling deflation risk is one thing, returning inflation toward the 2% target is quite another. Looking over the 2-3-year horizon, the evolution of wage growth is one of the key determinants of where inflation will go to in the coming years; and, in turn, wage growth will be determined by the type and the quality of jobs being created. And on that front, the experience across the euro area economies remains very uneven.

Risk neutral probability density functions of euro area inflation over the next five years



Source: Peter Praet, ECB

Euro area wages and core inflation

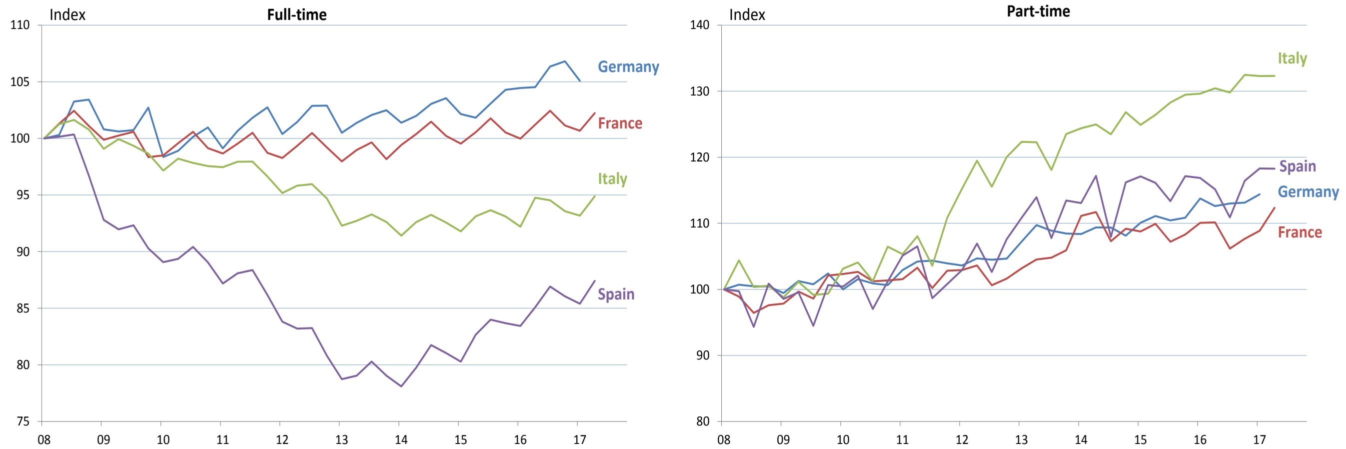


Source: Eurostat and Jefferies International

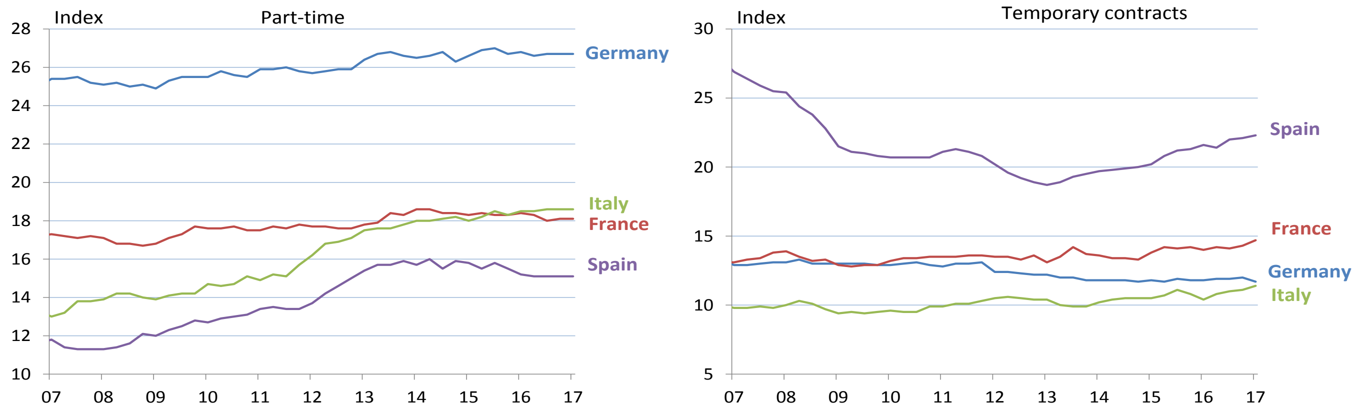
For example, one encouraging sign is the surge in full-time jobs in countries such as France, Spain, Ireland and Portugal. However, when thinking about the degree of spare capacity that still remains, compared to 2008, the level of full-time employment is Spain is still almost 13% below where it was, in Italy it's some 5% below. Part-time employment (often of involuntary kind

with employees wishing to work longer hours but unable to do so), in comparison, has surged; as have the jobs on temporary contracts.
For instance, since the start of 2014 until mid-2017, in Spain, total employment rose by 1.45 million and in Italy it rose by 592k. But within this, employment on temporary contracts accounted for 751k in Spain (52% of total) and 328k in Italy (55%). In a best-case scenario, these jobs will end up being converted into permanent employment. But it's also possible that they may not, which means that for any given level of employment, job insecurity is higher and, quite likely, the propensity to consume for a given level of income is lower than in the past.

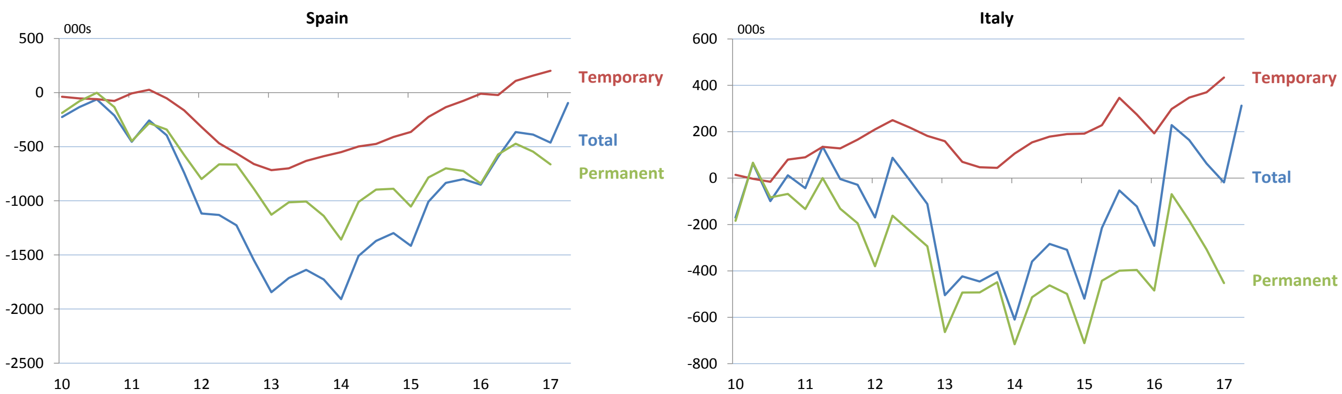
Cumulative employment levels since 2008: full-time vs part-time



Part-time and temporary contracts as share of total employment



Temporary contracts as contribution to total employment



Source: Eurostat and Jefferies International

A similar argument could be made around the composition of employment growth by age group. In Q2, there was in fact very strong employment growth amongst the younger workers (the under-50s) in France, Italy and Spain. But the data back to the start of 2008 (see table below) shows a remarkable ageing of the labour force, with employment amongst younger workers declining in every single euro area country over the past decade. Precisely how this trend may affect future wage growth and future productivity growth is still unknown, and the ECB could well view this focus on the 'quality' of jobs being created as premature and a "high-class problem" – i.e. the first concern is job creation of any sorts, later on the ECB will worry about the type of job being created. Nonetheless, it is evident, that as in the US and the UK, there are fundamental changes taking place in the euro area labour market which may alter expectations of where wage growth and inflation will settle in the longer term.

Employment growth since the start of 2008: split by age group

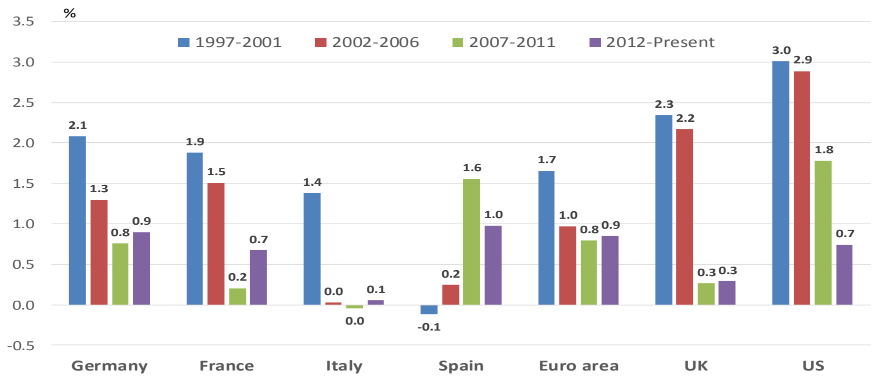
000s	From 15 to 50 years	From 50 to 64 years	65 years or older	Total
Euro Area	-11,579	11,074	971	466
Germany	-1,515	4,298	498	3,281
France	-727	1,745	220	1,238
Italy	-2,449	2,482	190	223
Spain	-3,070	1,233	31	-1,807
Netherlands	-535	509	103	77
Belgium	-211	318	14	121
Austria	-68	385	13	330
Ireland	-218	98	19	-101
Finland	-120	21	32	-67
Portugal	-485	207	-74	-352
Greece	-754	-3	-19	-776
Slovakia	-35	152	18	136
Slovenia	-70	59	-4	-15
UK	399	1,544	473	2,415

Source: Eurostat and Jefferies International

Will the euro area hit UK-style productivity wall?

When thinking about the contributing drivers of growth, on a two-year view, the ECB is in a different space from the Bank of England. For the BoE, the scope for further rises in employment is limited, given falling migration on the one hand, and the already very low levels of unemployment on the other. Thus, future GDP growth in the UK will be more closely linked to productivity growth, which, given its sharp decline over the past decade, is a worry. In the euro area, where the supply of available labour is still substantial (and migration is flexible), low productivity growth is arguably a less pressing issue now, but it too will become a major focus of discussion once employment growth naturally starts to run out of steam.

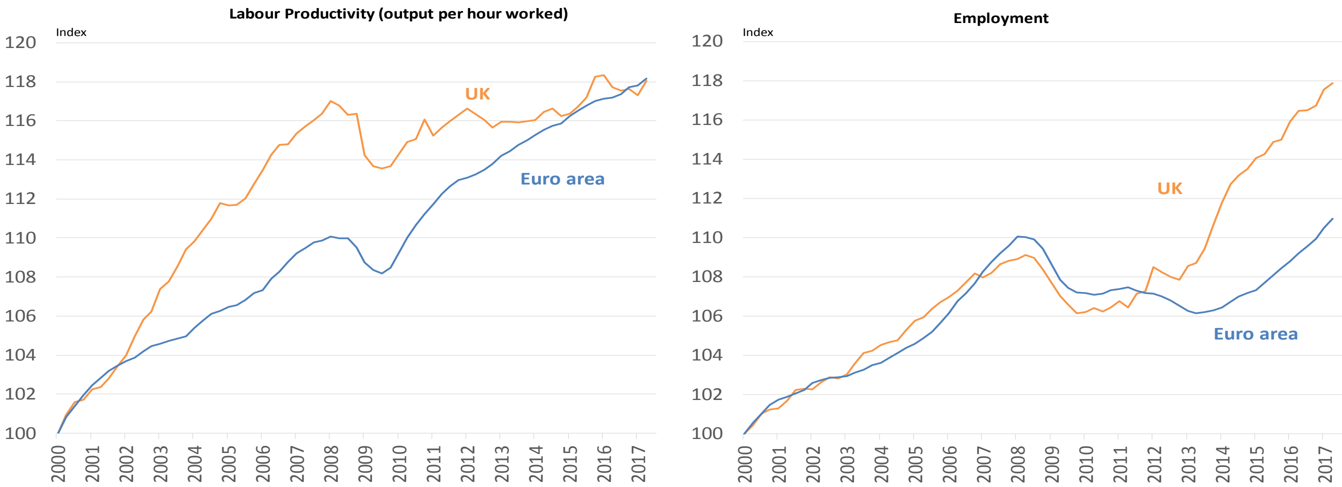
Growth in productivity per hour worked



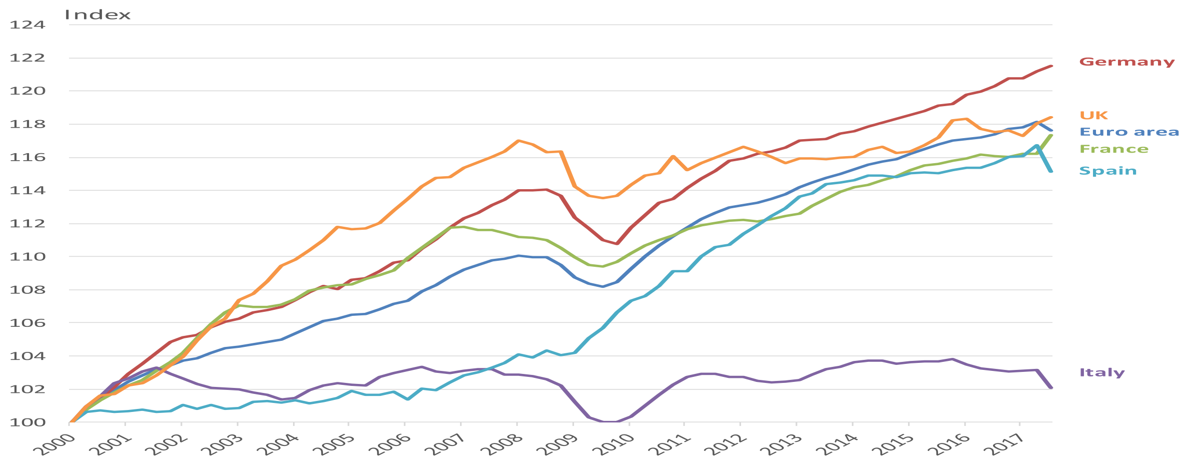
Source: Eurostat and Jefferies International

The discussions around productivity essentially encompass two parallel subjects: what drives productivity growth on the domestic level, and what's behind long-standing difference in the levels of international productivity. As the front-page shows, over the past two decades, falling productivity growth (defined as output per hour worked) has been a common theme across the developed world. But looking specifically at the European countries (where Eurostat can provide commonly defined data), this experience has not been uniform. For example, taking aside the years immediately around the 2007-08 crisis, the contrast between the UK and the euro area is stark, with the UK outpacing the euro area in terms of productivity growth up until the crisis; but then growth stalling after 2011. Yet there are also substantial differences in the country experiences within the euro area itself. For example, Germany and France have both seen consistent productivity improvements (even with Germany's growth in employment almost matching that of the UK). But Spanish productivity growth only really began to grow as its unemployment rate surged after the crisis started. While in Italy, productivity growth has been almost zero for 15 years.

Decomposition of euro area and UK GDP growth



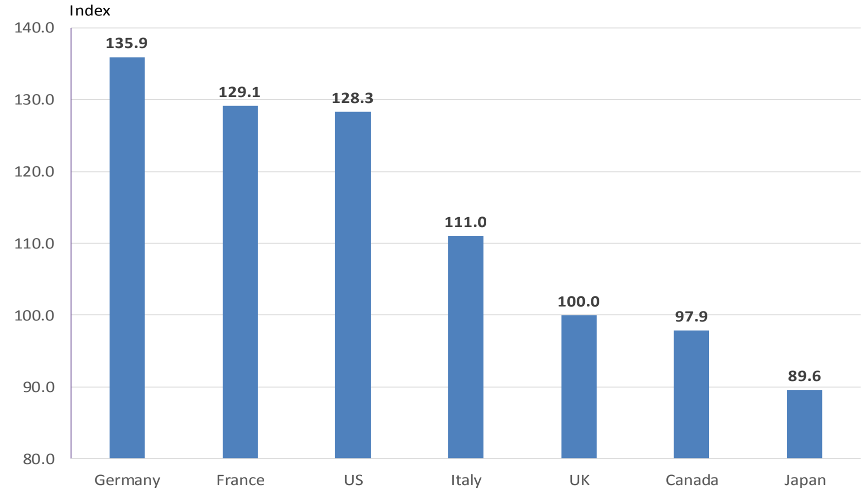
Real labour productivity per hour worked



Source: Eurostat and Jefferies International

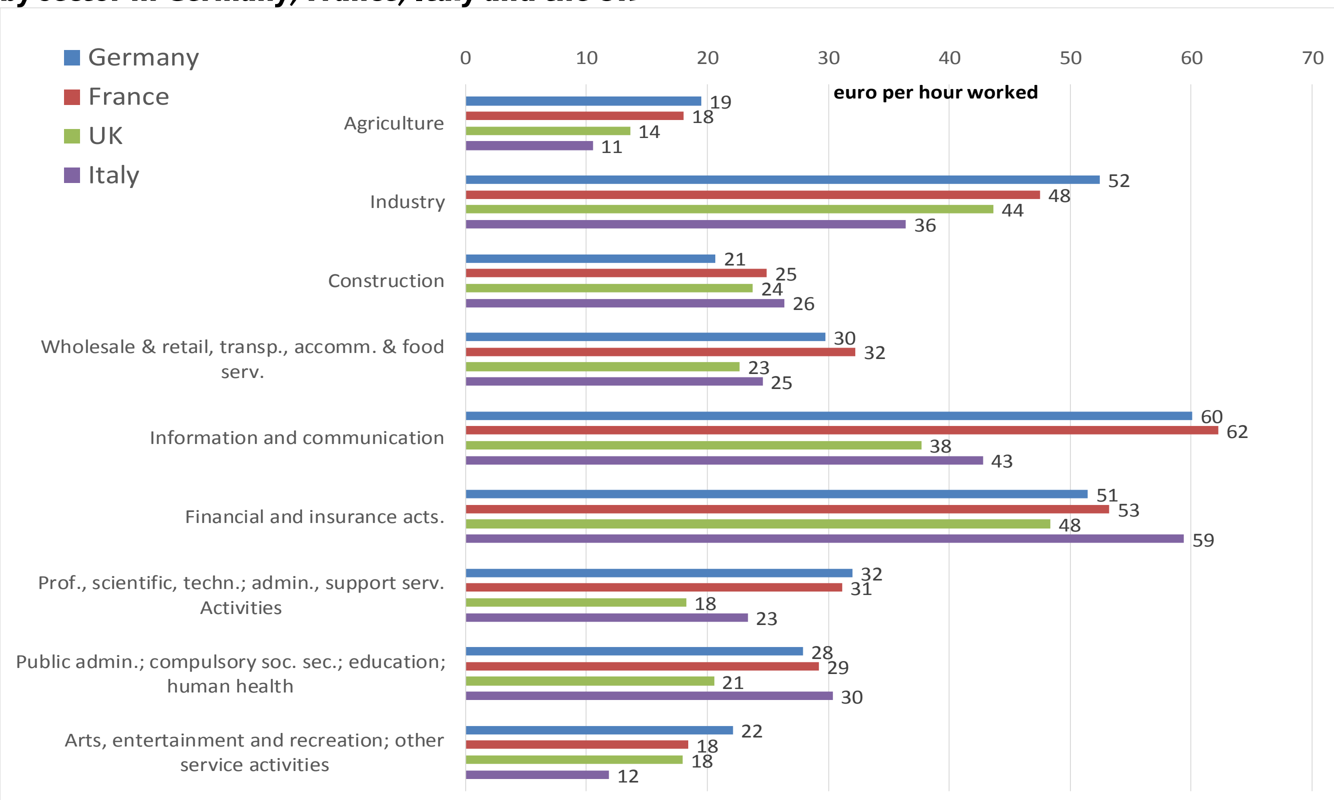
Yet, and this may come as a surprise, even after almost two decades of almost no productivity growth, in 2015, Italy's level of productivity was still some 11pp above that of the UK (this is from the UK's own Office for National Statistics, see here). These figures can be taken apart to look at the sectoral levels of productivity, with the data in the second chart below confirming that across most sectors of the economy, the UK trails its largest neighbours in terms of the value of output produced per hour worked.

International comparisons of productivity: GDP per hour worked



Source: ONS

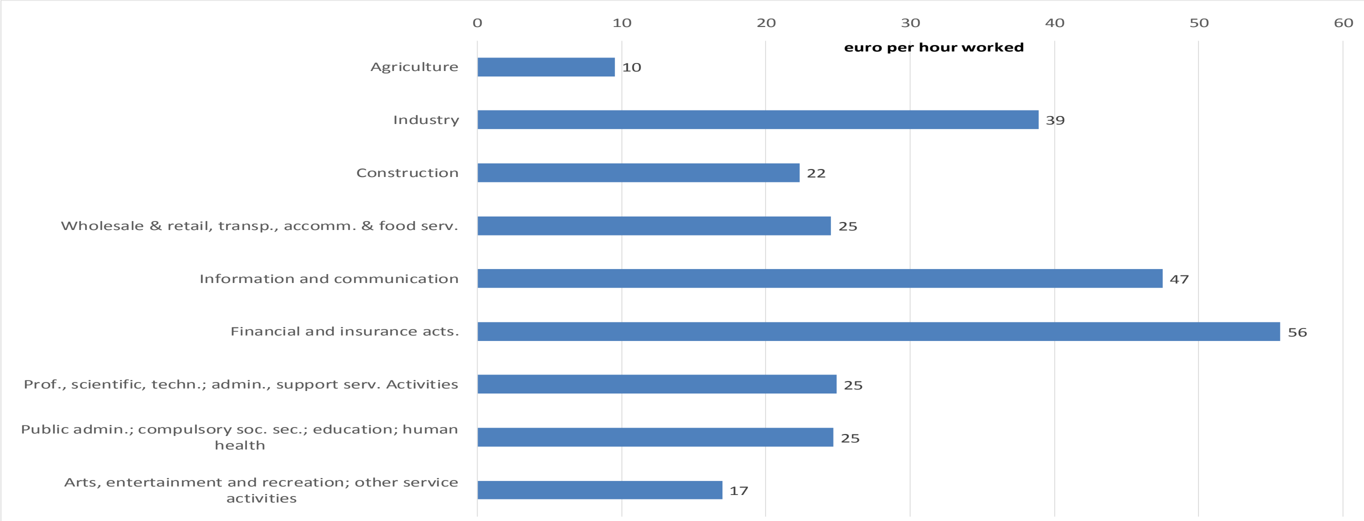
Average labour productivity (PPP-adjusted € per hour worked) by sector in Germany, France, Italy and the UK



Source: Eurostat and Jefferies International

So, what actually drives some of these country differences in terms of the growth rates and the levels of productivity? The composition effect plays some part; clearly, it helps if the new jobs that are being created are in industries with higher levels of productivity, such as 'manufacturing and industry', 'information and communication', and 'financial and insurance activities'. So for instance, as the second table below shows, the types of jobs having been created in Italy since the start of 2013 ('accommodation and food services' and 'administrative support' accounting for over 50% of total employment growth) are not as productive as the jobs created in Germany and France ('manufacturing', 'professional, scientific and technical activities'). Up to a point, the same could be said for the UK, where although plenty of new jobs have been in IT and other professional services, there has also been a significant rise in employment in low productivity sectors such as construction, retail, accommodation and administrative and support services. Yet, overall, while these country difference in the types of new jobs being created matter, the more important contributing factor is productivity growth of existing employees working in existing firms.

Average labour productivity (PPP adjusted € per hour worked) by sector of output in Europe



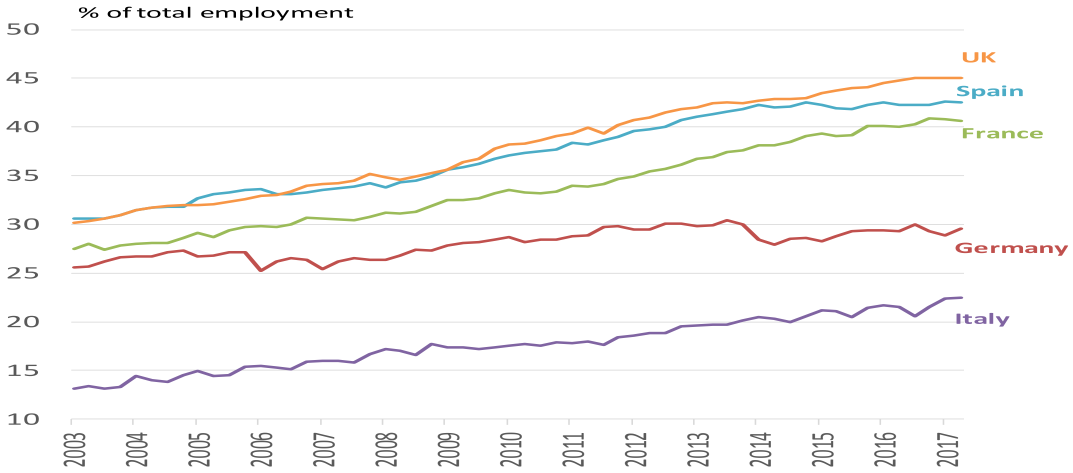
Employment growth since the start of 2013 by sector

000s of jobs	Germany	France	Italy	Spain	Euro area	UK
Total	**1,966**	**1,307**	**818**	**1,748**	**7,823**	**2,066**
Manufacturing	136	105	17	240	758	-23
Construction	269	-23	-110	69	298	219
Wholesale and retail trade; repair of motor vehicles and motorcycles	50	243	32	144	614	168
Transportation and storage	111	111	82	109	543	54
Accommodation and food service activities	30	118	333	430	1,257	279
Information and communication	116	81	15	54	419	187
Financial and insurance activities	19	-27	23	-1	5	46
Real estate activities	28	59	-2	43	149	6
Professional, scientific and technical activities	362	136	73	124	836	297
Administrative and support service activities	211	123	94	65	684	205
Public administration and defence; compulsory social security	30	56	-100	-22	37	111
Education	140	90	87	99	565	134
Human health and social work activities	529	391	52	217	1,370	174
Arts, entertainment and recreation	62	41	67	79	312	94
Other service activities	-48	3	-23	33	-13	159

Source: Eurostat and Jefferies International

Here, intriguingly, the main drivers of improvement may not be the level of education of the labour force, but factors such as investment and adoption of new technologies. For instance, in the UK, the proportion of workers with an educational attainment above secondary school has risen substantially over the past 15 years; in Italy, it is rising sharply from a low base; but in Germany it has basically been unchanged for 20 years - and yet it is the UK where productivity trails behind, as the return on having a higher educated labour force has seemingly not been fully realised (or not yet perhaps).

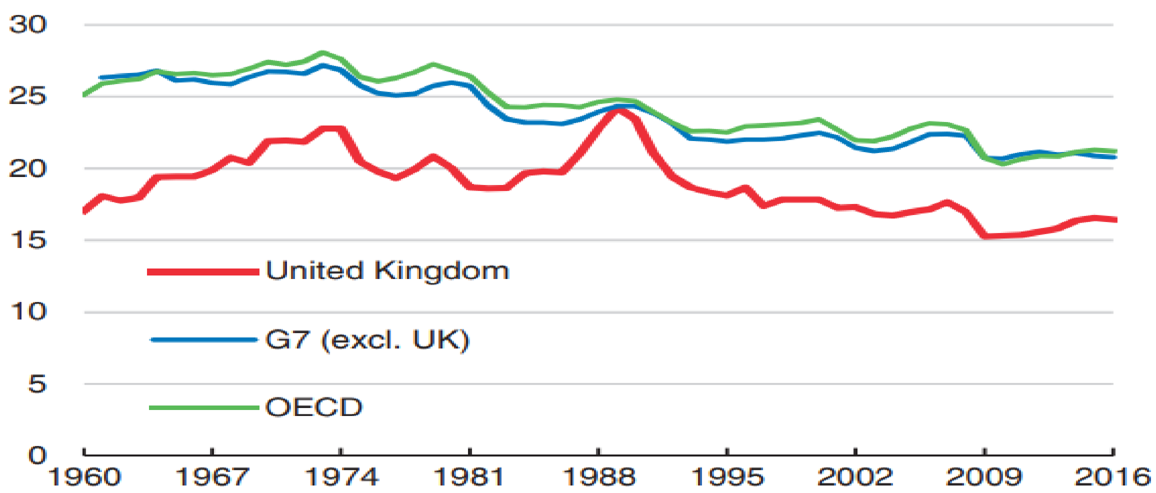
Workers with post-secondary education as share of total employment



Source: Eurostat and Jefferies International

One potential explanation in terms of what holds the UK back, according to the OECD, is its persistently low levels of investment relative to GDP (see below). This, in turn, shows up in the slightly off-the-wall data like the one on the next page which shows the UK trailing most developed economies in its use of robots in manufacturing. Thus, while it's hard to argue that a more educated labour force should boost productivity, it is perhaps as important for firms to invest into technology, which is then followed by specific on the job training.

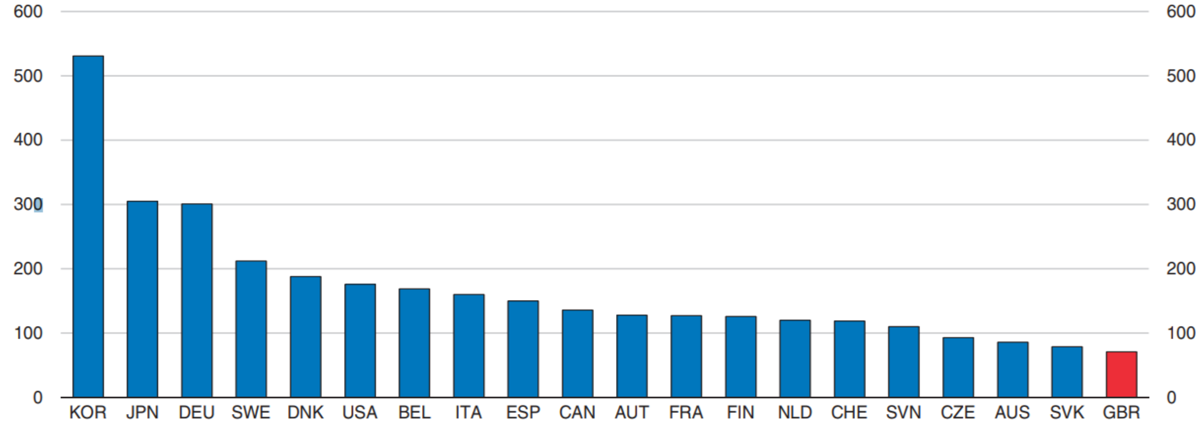
Investment as share of GDP (%)



Source: OECD

Use of robots in manufacturing

Number of multipurpose industrial robots (all types) per 10 000 employees in the manufacturing industry, 2015



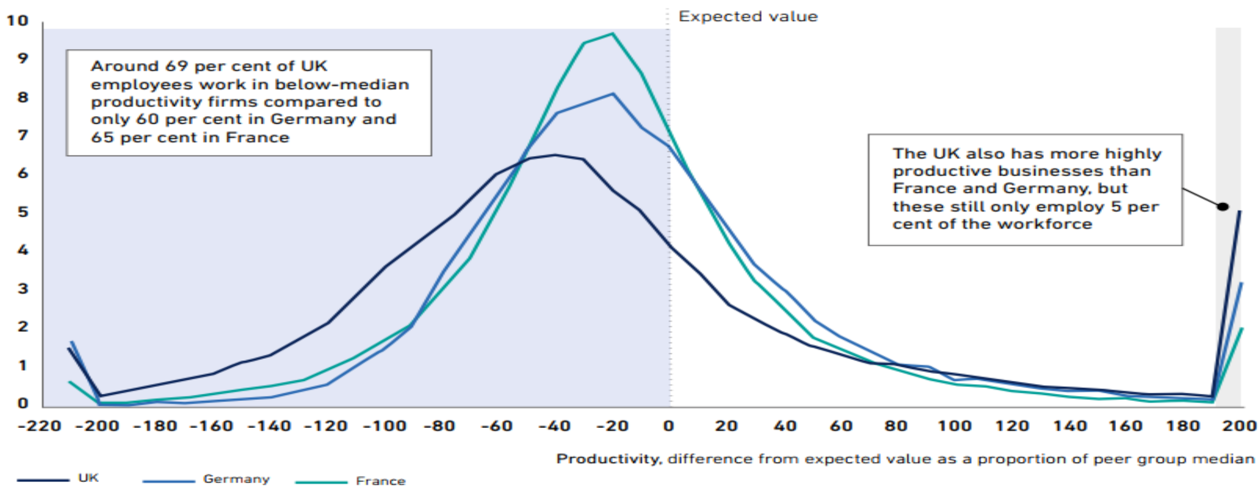
Source: OECD

One interesting observation made by the Confederation of British Industry is that the UK economy is a rather odd mix of highly productive firms – which at the very top are more productive than their competitors in Germany and France; but also, very unproductive firms which drag the UK's overall productivity lower. These difference, as the OECD also writes about, are often linked to geography and proximity to London, which then contributes to regional inequality. Indeed, the CBI also make the general observation that inequality of productivity across companies goes hand in hand with the inequality in pay (if you happen to work for a less productive firm, logically you will get paid less), with the UK having a relatively high level of pay inequality across its labour force. (Italy and Spain are also both in this same camp; while Germany and France have firms of more similar productivity with more similar pay.) Which means that productivity differences are no longer a problem just for economists and central bankers, but also for the politicians having to deal with rising inequality of wealth.

UK firms: more highly productive firms, but also significantly more low productivity firms compared to Germany and France

Distribution of businesses relative to the expected productivity for a firm of that size and sub-sector

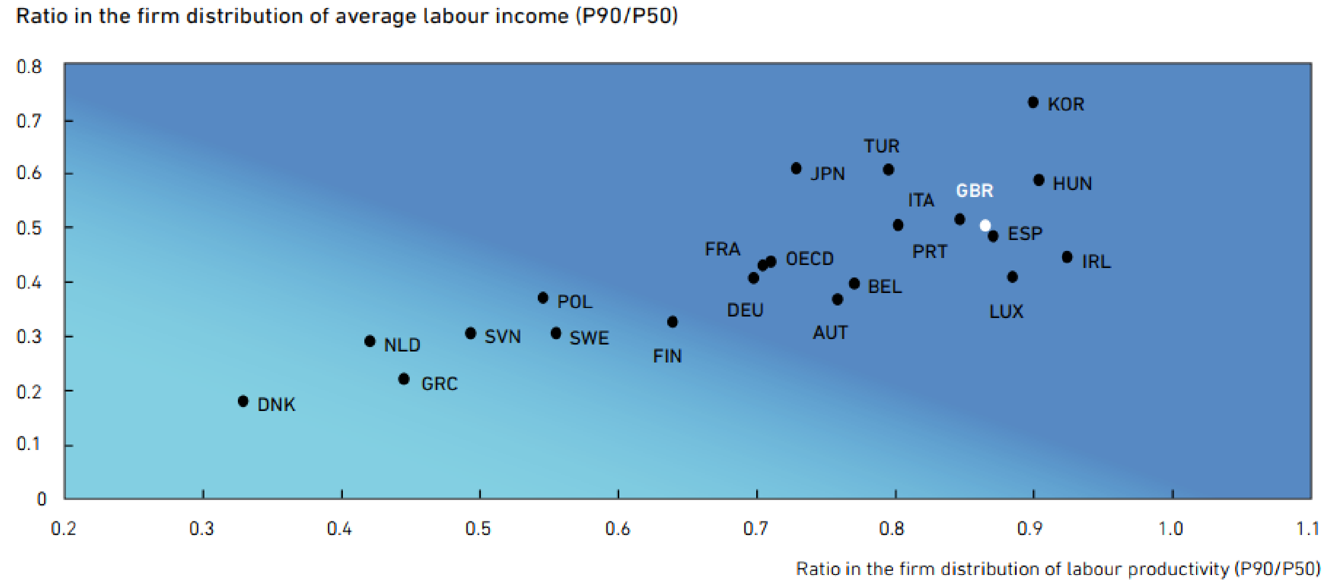
2013, percentage of firms



Source: CBI

GLOBAL FIXED INCOME

Unequal productivity of firms = unequal pay of the labour force

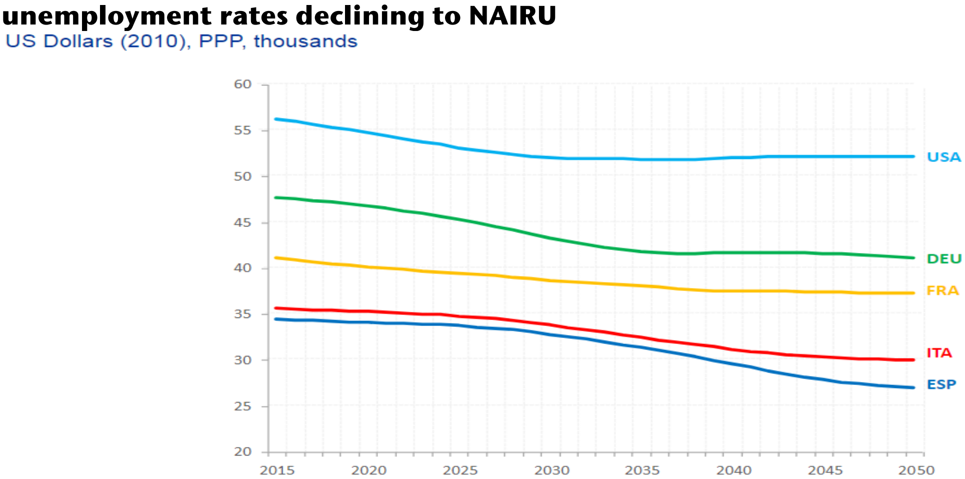


Source: CBI

As far as the ECB is concerned, low interest rates are partly there to facilitate much lower unemployment rates in countries such as France, Italy and Spain. But over time, as rapid employment growth slows, any growth in GDP can only come from the improvements in productivity; and one could also argue that lower interest rates as keeping alive often unproductive ‘zombie’ firms thus depressing the euro area long term growth prospects.

Indeed, as highlighted by Mario Draghi in a speech last year, Europe’s particularly poor demographics put added emphasis on the need for consistent productivity growth in the region (see chart below). And, growth that is driven not just by a handful of firms within a few industries; but by productivity improvements that somehow manage to capture the entire labour force, thus helping to limit income inequality.

Projected GDP per capita assuming no productivity growth and unemployment rates declining to NAIRU



Source: ECB

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