ECB QE: Quest for Exit

The private sector is able to cope with rising interest rates

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Executive Summary

The continued low interest rates are a source of massive relief for private debtors: in the period from 2008 to 2016, the interest payments made by the private sector in the euro area fell by around EUR 291bn; on a cumulative basis, the private sector "saved" nearly EUR 1,550bn in these eight years. The debt service ratio (interest payments expressed as a percentage of GDP) dropped by 3.4 percentage points and was also down considerably on the values for the pre-crisis years, at only 3.0 percent.

In relation to GDP, Spain and Portugal reaped the greatest benefit from the drop in interest rates, with their interest burden falling by about seven percentage points. On the other hand, the relief for the core EMU countries, Germany, the Netherlands, France and Belgium, has been much less pronounced, but substantial nonetheless at 2.3 percentage points on average. It is somewhat surprising to see that Austria does (slightly) better than Italy - this reflects the marked drop in interest rates in Austria and the (relatively) good economic development during the period analyzed.

In the future, bank interest rates will increase again. The extent of this increase will depend not least on the speed at which monetary policy returns to normal. We have used three different scenarios for the period leading up to 2022 to simulate this. At the same time, we have assumed that the moderate recovery in the euro area will continue in respect of the other parameters (GDP, incomes, debt). Under these assumptions, even in the less likely event of forced normalization, however, the average loan interest rates for households and the corporate sector – the latter with the exception of Ireland – are likely to remain below the values seen in the pre-crisis years. For two reasons: Many private debtors are trying to lock in current low interest rates with long rate fixation periods (in particular in the private mortgage market), mitigating the rise in average bank interest rates; and overall the private sector will be less indebted in the future than in former years.

Rising interest rates will result in higher debt service payments for the private sector. This will not, however, simply mean that the previous relief is "reversed". Even in the least favorable scenario, the interest payments will "only" increase by EUR 282bn - this means that, even 14 years down the line, in 2022, their absolute value still falls short of the level reached at the peak of the credit boom in 2008 (see figure 1).

In the more likely event of "soft normalization", on the other hand, interest payments are only expected to increase by around EUR 157bn, leaving them more than two fifths lower than in 2008 in absolute terms. In relation to economic output, the increase in the euro area is likely to come to between 0.7 and 1.6 percentage points. The upshot: for the eurozone as a whole, the relative interest burden is not only below the peak in 2008, but also generally lower than in the years before the crisis.

Figure 1
Total private sector

157bn or 282bn euro: That's the question

Total interest payable, in EUR bn	2003	2008	2016e	2022 "Soft normalization"	2022 "Moderate normalization"	2022 "Hard normalization"	Increase over 2016, in EUR bn: 2022 "Soft normalization"	2022 "Moderate normalization"	2022 "Hard normalization"
Austria	12.2	17.3	7.8	*14.2*	*16.6*	*20.3*	*6.5*	*8.8*	*12.6*
Belgium	10.7	14.9	10.1	*14.9*	*16.2*	*18.3*	*4.8*	*6.1*	*8.1*
France	72.4	102.9	66.5	*98.8*	*107.4*	*121.4*	*32.2*	*40.8*	*54.8*
Germany	140.6	135.5	82.3	*117.1*	*126.9*	*142.5*	*34.8*	*44.6*	*60.2*
Ireland	6.8	22.9	7.1	*10.8*	*12.1*	*14.1*	*3.6*	*5.0*	*7.0*
Italy	61.2	107.5	53.4	*79.1*	*88.5*	*103.3*	*25.7*	*35.1*	*49.8*
Netherlands	40.7	54.7	41.6	*55.5*	*58.9*	*64.0*	*13.8*	*17.2*	*22.4*
Portugal	9.6	18.1	6.1	*10.6*	*12.2*	*14.8*	*4.4*	*6.1*	*8.7*
Spain	37.2	108.5	30.4	*49.9*	*56.2*	*66.8*	*19.5*	*25.8*	*36.4*
Eurozone	406.6	616.9	326.4	*483.0*	*531.2*	*608.3*	*156.6*	*204.8*	*281.9*

Total interest payable as percent of GDP	2003	2008	2016e	2022 "Soft normalization"	2022 "Moderate normalization"	2022 "Hard normalization"	Increase over 2016, in percentage points: 2022 "Soft normalization"	2022 "Moderate normalization"	2022 "Hard normalization"
Austria	5.3	5.9	2.2	*3.3*	*3.9*	*4.7*	*1.1*	*1.7*	*2.5*
Belgium	3.8	4.2	2.4	*2.9*	*3.2*	*3.6*	*0.5*	*0.8*	*1.2*
France	4.4	5.2	3.0	*3.8*	*4.1*	*4.6*	*0.8*	*1.1*	*1.6*
Germany	6.3	5.3	2.6	*3.1*	*3.3*	*3.7*	*0.4*	*0.7*	*1.1*
Ireland*	4.7	12.2	2.7	*3.1*	*3.5*	*4.1*	*0.5*	*0.9*	*1.4*
Italy	4.4	6.6	3.2	*4.1*	*4.5*	*5.3*	*0.9*	*1.3*	*2.1*
Netherlands	8.0	8.6	6.0	*6.6*	*7.0*	*7.6*	*0.6*	*1.0*	*1.6*
Portugal	6.6	10.1	3.3	*4.7*	*5.4*	*6.6*	*1.4*	*2.1*	*3.3*
Spain	4.6	9.7	2.7	*3.6*	*4.0*	*4.8*	*0.8*	*1.3*	*2.1*
Eurozone	5.2	6.4	3.0	*3.7*	*4.1*	*4.7*	*0.7*	*1.1*	*1.6*

*One-off effect: From 2015 onwards, data is not comparable due to changes in the National Accounts Statistics. Without this effect the ratio of interest payable to GDP was approx. one percentage point higher.

Sources: Eurostat, ECB, Allianz Research.

However, the average number masks rather huge differences between the eurozone members. In relation to the economic output, Portugal and Austria will be hit the hardest, with the main impact being on households in Portugal and on the corporate sector in Austria (see figure 2). In Portugal, the additional interest burden is likely to come to around 1.4 percent points of GDP, and in Austria to 1.1 percentage points; in the least favorable scenario, however, this figure could increase by 3.3 percent points in Portugal and by 2.5 percentage points in Austria. In Italy and Spain, the increase is below one percentage point; even in the hard normalization scenario, the value only climbs by around 2 percent points.

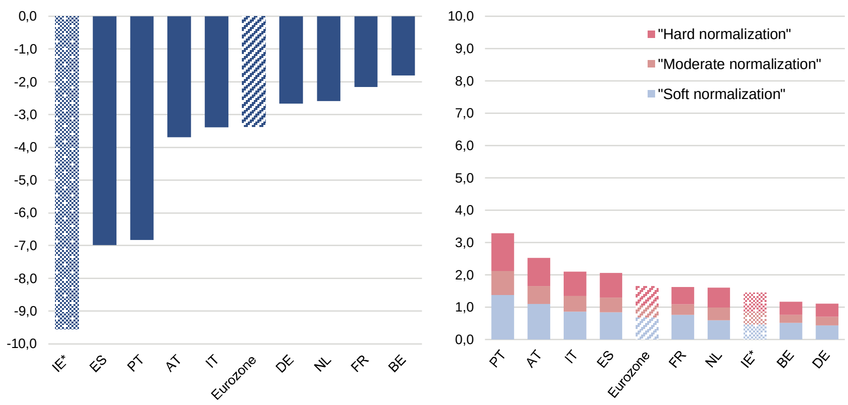
Belgium and Germany, the two countries with the lowest debt ratios, are at the other end of the spectrum: the expected increase in interest on debt service payments is only around half a percentage point. It is only in the least favorable situation that the additional burden on the entire private sector accounts for 1.2 and respectively 1.1 percentage points of GDP in Belgium and Germany. But for all countries applies: relative interest burdens of the private sectors remain below the pre-crisis average; only in France and Italy, these levels might be passed again in the risk scenario – reflecting to a good degree the comparatively low interest burdens in both countries in earlier times.

Figure 2
Total private sector

Easy come, easy go – but not to the same extent

Change in interest payable as % of GDP
2016e over 2008, in percentage points

Change in interest payable as % of GDP
2022 over 2016e by scenario, in percentage points



*One-off effect: From 2015 onwards, data is not comparable due to changes in the National Accounts Statistics.

Sources: Eurostat, ECB, Allianz Research.

At the end of the day, a return to rising interest rates will not come as welcome news for private debtors. The extent to which households and companies in the euro area are affected will vary, with a potentially painful adjustment process in store for Portuguese households, in particular. All in all, however, the private sector in the euro area has the constitution to digest the normalization of monetary policy. The extra interest burdens will not be substantial enough to fuel fears of another economic slump: so there is no reason to fear a rise in interest rates. From this perspective, there is nothing standing in the way of a return to normal monetary policy.

Introduction: QE – Quest for exit

Although the ECB remains resolute in sticking to its current course - the days of extremely low interest rates would slowly but surely appear to be numbered. Since summer last year, long-term interest rates, measured in terms of the yields on ten-year government bonds, have already climbed by around 50 basis points. A glance at what the future holds for US monetary and fiscal policy suggests that a further increase is extremely likely. So what does this turnaround in interest rates mean for the eurozone economy?

After years of zero interest rates and central bank purchase programs of gargantuan proportions, quite a few observers are now firmly convinced that breaking with the policy of low interest rates is an option that is just no longer feasible. They argue, quite simply, that economic players have become so hooked on the "drug" of cheap money that they could no longer handle normal interest rates; the withdrawal process, according to these observers, would inevitably bring the economy, which now rests on a foundation of debt, crashing down - leaving the central banks with no other option but to continue supplying governments, the corporate sector and households with liquidity for free.

There is, admittedly, a certain degree of logic behind this fatalistic take on things. Public-sector debt, in particular, has continued on a steep ascent since the financial crisis, defying the numerous efforts to rein in debt in the euro area. On the other hand, however, while governments in particular might not be immune to an about-turn in interest rates, they do enjoy a fairly good level of protection in the form of the many bonds issued before the financial crisis that are set to reach maturity over the next few years. Back then, even Germany was offering coupons of 4 percent and more. Even if interest rates do change course, we are unlikely to see a return to conditions like these. At the same time, finance ministers have been making the most of a market environment that plays in their favor, issuing a large number of long-term securities to secure the low interest rates for the next few years (and decades). This means that they will presumably be able to look forward to falling interest payments in their budgets in the future, too.

In the private sector, however, this "protective mechanism" only works to a very limited degree, because only big companies have access to the capital market and can pursue the sort of financing strategy favored by the government. For the majority of smaller companies and also private households, on the other hand, a change in financing conditions is likely to come hot on the heels of the interest rate U-turn: they depend largely on bank loans, fixed interest rate periods - where they apply at all - tend to be much shorter and in many cases, interest rates are adjusted to reflect the market interest rates instead. One (significant) exception, however, relates to real estate loans in a number of eurozone countries, including Germany.

Unlike the state, however, the private sector has taken the last few years as an opportunity to whittle down its debt level. In relation to economic output, private debt in the eurozone has dropped back by no less than 16 percentage points since reaching its peak in 2009 (households: -5.9 percentage points, corporates: -10.5 percentage points). So does this mean that the corporate sector and private households are in a position to stomach a return to higher interest rates? This is the question that this paper seeks to explore by simulating three different scenarios for an interest rate turnaround over the next years leading up to 2022, and analyzing its impact on debt service payments.

Debt discipline and falling interest rates: A winning formula!

ZIRP[1] left indebted households with more in their pockets

At the end of 2016, the estimated outstanding debt volume of private households in the group of countries analyzed came to a total of just under EUR 6.5 trillion, corresponding to more than 60 percent of private-sector bank loans. Starting in 2003, households upped their liabilities by an average of 3.2 percent a year. In the years before the outbreak of the global financial and economic crisis, debt growth in excess of 10 percent was not uncommon. In Ireland, there were even times at which credit growth had soared well beyond the 20 percent mark.

The crisis, however, forced households to take their foot off the debt pedal, meaning that the pace of debt growth has slowed considerably in recent years (see figure 3). Particularly in the countries on Europe's periphery, this signaled the start of the "deleveraging" phase: after the crisis, the mountains of debt that had previously been accumulated at a rapid pace started to shrink again in Spain, Portugal and Ireland. In countries like Germany, France or the Netherlands, too, credit growth was hovering in the low single digits; however, Germany was the only country where debt grew faster after the crisis than before.

Looking at the EMU countries on average, the debt ratio, i.e. debt expressed as a percentage of nominal economic output, fell from a record high of 70.3 percent in 2009 to 64.4 percent in 2016. Out of the countries included in our analysis, the lowest ratio was seen in Austria (52.6 percent), followed by Germany (53.8 percent) and Italy (55.3 percent). The Netherlands led the field by a wide margin, with the debt to GDP ratio coming to 121.6 percent.

What is more, per capita debt in the Netherlands was higher than in any other country: with an average of EUR 49,900, the liabilities of Dutch households were more than three times as high as in Italy (EUR 15,460) and Portugal (EUR 15,090).[2] In addition to the Netherlands, the per capita debt of households in Ireland (EUR 33,310), Belgium (EUR 23,550), France (EUR 23,310), Austria (EUR 21,470) and Germany (EUR 20,890) was also ahead of the EMU average (EUR 20,620).

[1] ZIRP refers to Zero Interest Rate Policy

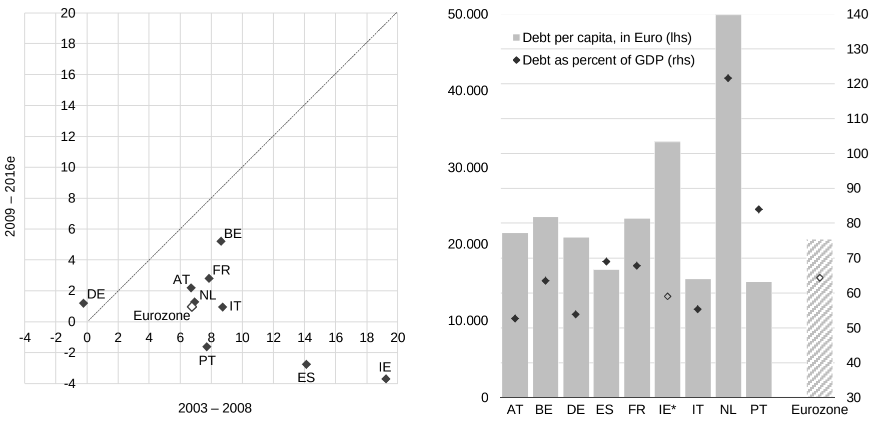
[2] The high level of debt in the Netherlands can be traced back to the real estate boom of the 1990s and early 2000s. Generous lending and the fact that mortgage interest was tax-deductible sent debt levels skyrocketing. The financial crisis, however, sparked a drastic drop in lending demand among households, also triggered by the government's decision, in 2012, to gradually phase out the generous tax treatment.

Figure 3
Private households

Looking back: Financial crisis marks the deleveraging process

Average debt increase by country
2003 to 2016e, in percent

Debt per capita and as percent of GDP
2016e



*One-off effect: From 2015 onwards, data is not comparable due to changes in the National Accounts Statistics.

Sources: Eurostat, ECB, Allianz Research.

The reluctance among households to borrow naturally also put a damper on their interest burden. In particular, however, the household sector benefitted from the ultra-loose monetary policy pursued by the ECB via its direct impact on loan interest rates; compared with 2008, these interest rates have fallen by an average of more than two fifths in the eurozone, to 3.2 percent on average.

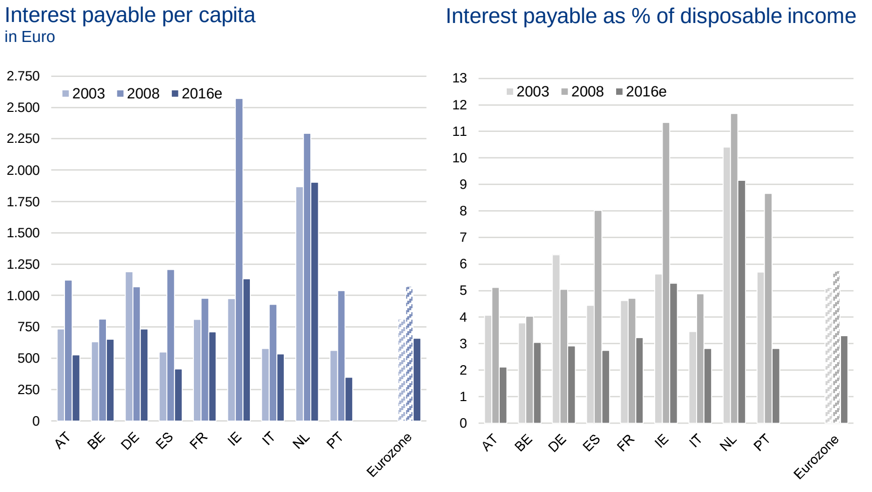
The extent of the drop varies considerably from country to country depending on whether variable or fixed rate models are the norm. In Austria, Portugal and Spain, interest rates have more than halved, while in Belgium and Italy, they have contracted by a substantial 40 percent or more. In the euro area's two largest economies, Germany and France, interest rates have fallen by almost 40 percent. The Netherlands is the country that has benefitted the least from the zero interest rate policy, with interest rates "only" dropping by 25 percent. This reflects the tenuous situation of Dutch households who are by far the most indebted in the eurozone.

The lower interest on debt balances reduced the level of interest payments considerably: in 2008, the average amount spent on interest in the euro area as a whole was still sitting at EUR 1,080 per capita. Eight years down the line, this amount was nearly two fifths lower at just under EUR 660 (see figure 4). All in all, in 2016, interest payments in the euro area were almost EUR 135bnlower than in 2008; measured as a percentage of nominal economic output, the interest burden on households contracted by 1.6 percentage points to 2.1 percent during this period.

The savings resulting from the lower interest payments are tantamount to an implicit increase in income: whereas back in 2008, spending on loan interest still accounted for an average of 5.8 percent of disposable income in the euro area, this figure had fallen to an estimated 3.3 percent by 2016.

Figure 4
Private households

Big windfall profits after the crisis



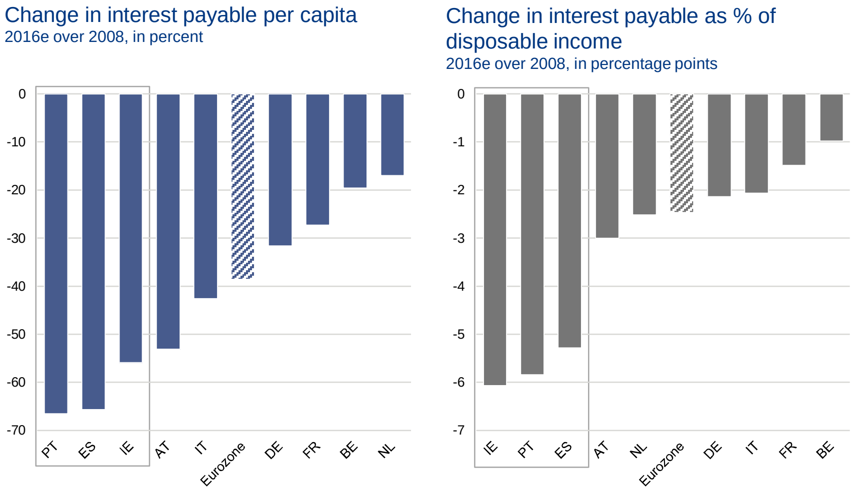
Sources: Eurostat, ECB, Allianz Research.

In relative terms, households living in the periphery countries have gained the most from the extremely expansive monetary policy, both in per capita terms and in relation to disposable income (see figure 5). Irish households, for example, were spending an average of EUR 1,130 per capita on interest in 2016, less than half the amount they were paying back in 2008 (EUR 2,570). The "interest savings" were even more substantial on the Iberian Peninsula: In Spain and Portugal, per capita interest burden fell by about two thirds to EUR 410 and EUR 350 respectively. Spending on loan interest more than halved in Austria, too, with households spending an average of EUR 600 less on interest in 2016 than in 2008 (EUR 1,120). Italy, the third-largest economy in the eurozone, also ranks among the countries that have reaped above-average benefits from the zero interest rate policy: the per capita interest burden there has fallen by respectable 43 percent to EUR 530. On the other hand, Germany (-32 percent), France (-27 percent), Belgium (-20 percent) and the Netherlands (-17 percent) lagged behind the euro zone average (-39 percent).

If interest payments are expressed in relation to disposable income, then a very similar picture emerges. Irish, Portuguese and Spanish households once again lead the field: the proportion of disposable income attributable to spending on loan interest fell by 6.1 percentage points, 5.8 percentage points and 5.3 percentage points respectively in the period from 2008 to 2016, whereas the average drop in the euro area "only" came to 2.5 percentage points. Households in Austria also had a slight edge over the EMU average, with the ratio of interest payments to income sliding by 3.0 percentage points. In Italy, on the other hand, the trend did not tie in with the development in per capita terms, with a below-average drop of 2.1 percent. In addition to very weak income development, this is primarily due to the fact that, in 2018, the proportion of income spent on interest payments in Italy, namely 4.9 percent, was already at a much lower level than in Ireland (11.3 percent), Portugal (8.7 percent) or Spain (8.0 percent). The Netherlands still has the highest ratio of interest payments to income: the proportion of income spent on interest came to 9.2 percent in 2016, which is nevertheless down by 2.5 percentage points on 2008, when the mortgage debt boom ended.

Figure 5
Private households

Peripheral countries benefit the most



Sources: Eurostat, ECB, Allianz Research.

Companies trimmed their debt tremendously

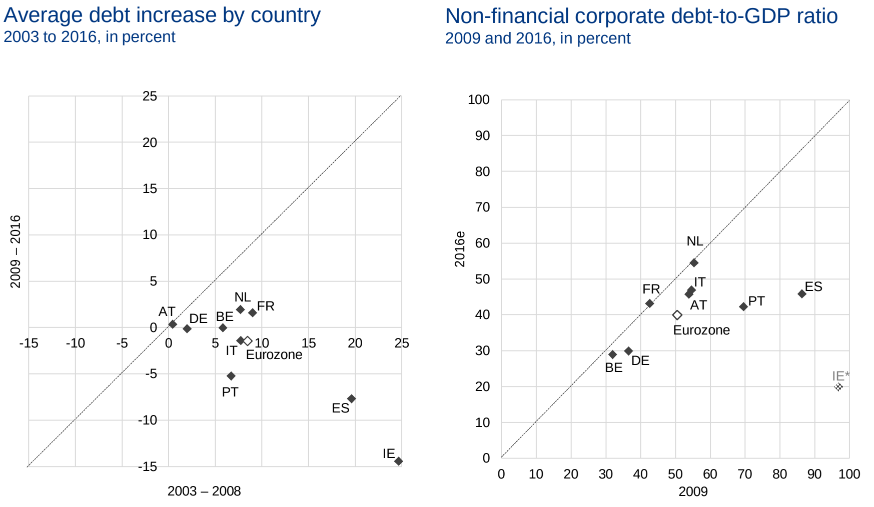
Non-financial corporate debt in the eurozone reached close to EUR 4,300bn in 2016, EUR 535bn down on the 2008 peak. It has always been below the household debt figure (EUR 6,900bn), but has decreased much faster since the crisis. For the eurozone as a whole for example, total non-financial corporate debt fell by 11 percent since 2008 while household debt increased by 8 percent.

In a country by country comparison, the situation varies widely. Not surprisingly, the countries in which total non-financial corporation debt adjusted the most are the peripheral countries: top of the list was Ireland (-71 percent compared to the pre-crisis peak) followed by Spain (-47 percent), Portugal (-35 percent) and, to a lesser extent, due not least to the much lower stock of non-financial corporation debt, Italy (-11 percent).

Indeed, in these countries firms had reached completely unsustainable debt levels and the financial crisis forced them to massively consolidate their balance sheets. Investment was reined in substantially (double-digit falls between 2008 and 2013) as demand was contracting and bank credit supply was very tight. In the Southern European countries the need for consolidation was exacerbated by high financing costs weighing on investment. In Northern European countries it was more a question of low demand and weak confidence as financing costs remained contained and cash holdings were significant.

Figure 6
Non-financial corporations

Looking back: Debt discipline like in Germany



*One-off effect: From 2015 onwards, data is not comparable due to changes in the National Accounts Statistics.

Sources: Eurostat, ECB, Allianz Research.

Together with the fall in interest rates since 2008, the reduction in debt gradually lowered interest expenditures. Back in 2008, non-financial corporations' in Spain were paying the highest interest expenditures in the eurozone, followed by Italy, Germany and France. In 2016, Germany stands on top as deleveraging has been very limited (total debt fell by only 1.2 percent between 2008 and 2016).

Overall, interest expenditures in the eurozone declined by EUR 156bn to EUR 105bn; in relation to GDP this represents a fall of 1.7 percentage points to 1.0 percent. Without surprise, interest expenditures decreased most in Spain (EUR 42bn, 3.7 percent of GDP) thanks to both strong deleveraging and falls in interest rates, followed by Italy (EUR 31bn, 1.9 percent of GDP), mainly on the back of significantly lower interest rates given the contained stock of non-financial corporations' debt.

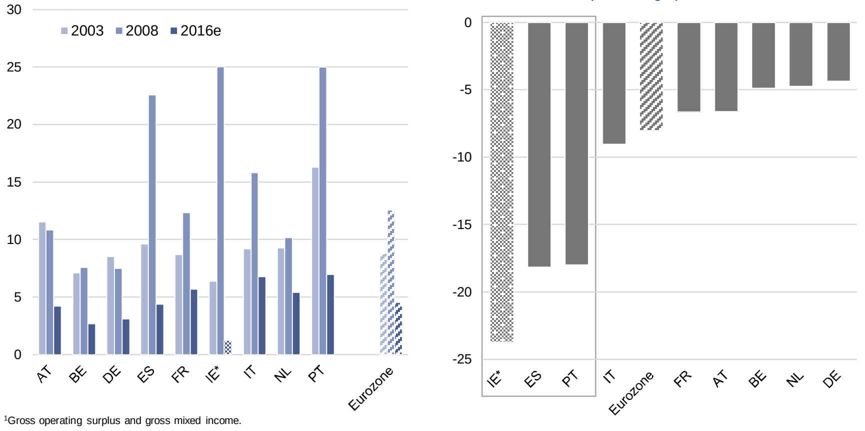
However, measured as a percentage of operating surplus, interest expenditures have moderated most since 2009 in Portugal and Spain (-18 percent each). This steep fall also reflects the fact that non-financial corporations in these two countries managed to increase their profitability at the same time. Compared to 2008, non-financial corporations' margins recovered the most in Portugal (5 percentage points of the gross value added) and Spain (4 percentage points).

Figure 7
Non-financial corporations

Debt discipline pays out handsomely (the more when rates are falling)

Interest payable as % of operating surplus[1]
in percent

Change in interest payable as % of operating surplus
2016e over 2008, in percentage points



[1]Gross operating surplus and gross mixed income.

*One-off effect: From 2015 onwards, data is not comparable due to changes in the National Accounts Statistics.

Sources: Eurostat, ECB, Allianz Research.

Rising debt and interest rates: A recipe for disaster?

How resilient is the private sector to a break with the unconventional monetary policy measures and an exit from the zero interest rate policy? In an attempt to answer this question, we have used three scenarios to analyze possible developments in the ECB's key rate and the impact on loan interest rates for households and the corporate sector in the period leading up to 2022.

METHODOLOGY

The historical time series for the interest rates on bank loans are taken, for both sectors, from the MFI interest rate statistics released by the ECB, which are available on a monthly basis and stretch back to 2003. For the household sector, we have used these statistics to calculate a weighted average annual interest rate[3]. For the corporate sector, we have used the agreed annual interest rate.

We have used regression analyses to estimate how an increase in the ECB key interest rate (independent variable) will impact average interest rates on bank loans (dependent variable) for households and the corporate sector in the individual countries. We have built three scenarios for the development of the ECB key interest rate up to 2022:

Our base scenario is one of “soft normalization”: in 2017 and 2018, interest rates will remain at zero, with the ECB only starting to hike the key rate from 2019 onwards, a trend that continues until 2022 at 50 basis points a year. The second scenario of “moderate normalization” assumes that the first interest rate hike will come in as early as 2018, namely by 25 basis points. In 2019, the key rate rises by a further 50 basis points, and then by 75 basis points in each of three following years. In the third scenario, we have assumed “hard normalization”: just like in the second scenario, the key rate is already

[3] The following loans are included: Loans for consumption, for house purchase and for other purposes. Revolving loans, overdrafts and extended credit card credit have not been taken into account for both systematic and statistical reasons.

increased in 2018, but by 50 basis points. Further hikes amounting to 75 basis points follow in 2019, with the period from 2020 to 2022 seeing the key rate increase by 100 basis points a year. Based on these assumptions, the key rate would reach 2 percent at end-2022 in the base scenario ("soft normalization"), 3 percent in the second ("moderate normalization") and 4.25 percent in the third scenario ("hard normalization"). The corresponding annual averages (2022) are 1.7 percent, 2.5 percent and 3.7 percent.

By calculating future interest payments in absolute terms, we have assumed that, after years of deleveraging, the pace of debt growth will gradually come back into line with the rate of GDP growth. For nominal GDP growth itself, we assume on average a slight acceleration, from 2.7 percent in 2016 to 3.3 percent in 2022. Furthermore, by calculating the relative interest burden, we have assumed that disposable income (households) and operating surplus (corporates) will develop in tandem with general economic activity.

Household sector: No return to the status quo ante

Good news for private households: even assuming a hard normalization of the key rate, our estimates suggest that there is not a single country in which the average loan interest in 2022 will exceed the levels touched upon in 2003 or 2008 (see figure 8). The narrowest gap, however, is likely to be seen in Ireland, where the expected loan interest comes to 5.5 percent in 2022, only marginally lower than the 2008 level (5.6 percent). But this is rather due to the fact that Irish interest rates back then were rather low, below the eurozone average whereas in other peripheral countries, such as Portugal, Italy or Spain, rates were clearly above average.

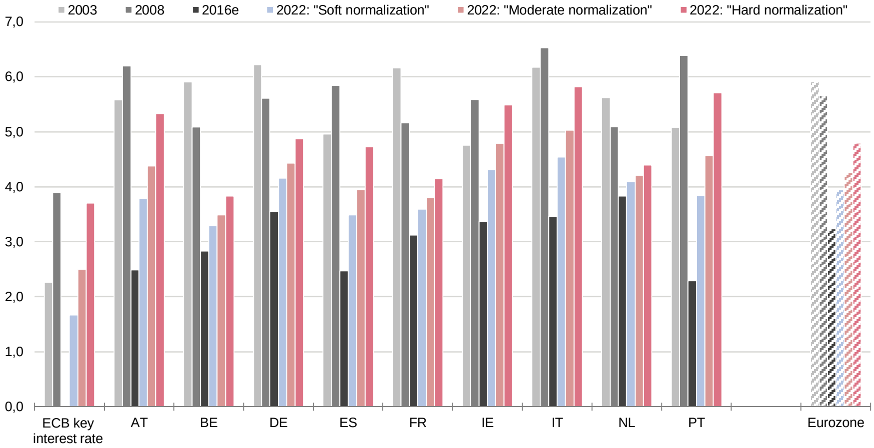
Looking at the euro area on average, the weighted average annual interest rate on bank loans is likely to have climbed to 3.9 percent in the base scenario, 4.3 percent in the moderate normalization scenario and 4.8 percent in the hard normalization scenario by 2022. By way of comparison, the average interest rate came to 5.9 percent in 2003.

Our calculations suggest that households in Portugal will be faced with the most dramatic increase compared with 2016: if the key rate is increased to 3.7 percent by 2022 (annual average), this would likely see loan interest rates increase by 3.4 percentage points to 5.7 percent. The Portuguese have, however, also benefitted the most from the zero interest rate policy: after all, loan interest rates in Portugal have fallen by 4.1 percentage points between 2008 and 2016. Vice versa, in our regression analysis, loan interest rates in the hard normalization scenario show a less dramatic increase in the Netherlands, France, Belgium and Germany than in the euro area as a whole (+1.6 percentage points).

Figure 8
Private households

Looking ahead: No return to the status quo ante

Historic and estimated average interest rates on bank loans by scenario
in percent



Sources: Eurostat, ECB, Allianz Research.

In absolute terms, our calculations show that in 2022, spending on interest in the euro area will be EUR 94bn, EUR 119bn or EUR 162bn above the 2016 level, depending on the scenario. Compared with the all-time high reached in 2008, spending on interest in 2022 is nevertheless likely to be EUR 41bn/EUR 15bn lower in both the soft and moderate normalization scenarios: it is only in the hard normalization scenario that we expect the interest burden to be even higher than it was in 2008, namely by EUR 27bn.

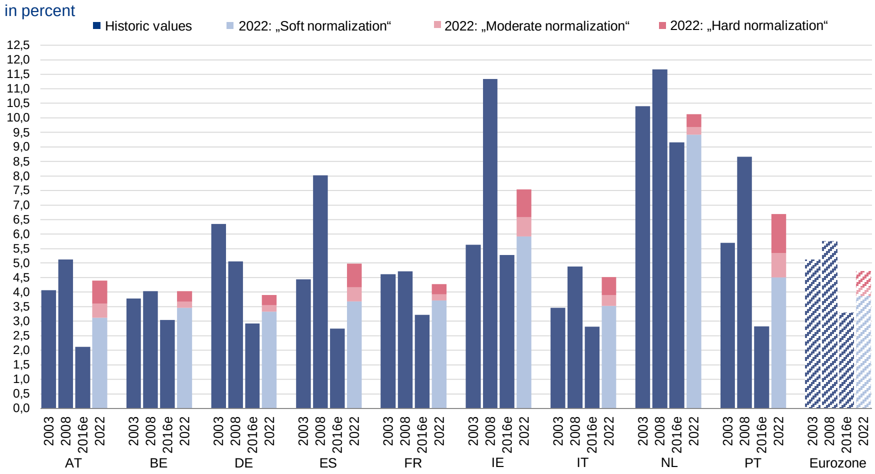
We expect interest payments in the euro area to increase in relative terms, i.e. as a percentage of disposable income, too (see figure 9). Even in the hard normalization scenario, however, this increase will be relatively modest at 1.4 percentage points (from 3.3 percent in 2016 to 4.7 percent in 2022); in the two other scenarios, the increase will come to only 0.6 and 0.9 percentage points respectively. In any case, however, the proportion of disposable income that households will have to spend on interest payments in 2022 is lower than the 2008 level in the euro area on average; even in the least favorable scenario, the gap comes to more than one percentage point. At country level, too, the 2022 interest burden is consistently lower than the peak value reached in 2003/2008 – except for Belgium, where it might reach the 2003 level in the least favorable scenario. Moreover, national differences in interest burdens are much smaller; only Portugal, Ireland and in particular the Netherlands have to shoulder payments which are significantly above average.

If we look at spending on interest in relation to GDP, then we only expect the ratio to increase from 2.1 percent in 2016 to 3.0 percent in 2022 on average in the euro area, even in the event of hard normalization. This means that the increase would only be around half as substantial as the drop in 2016 as against 2008 because neither interest rates nor debt ratios will reach their former peaks. In the two other scenarios, the interest burden would likely increase to 2.4 percent and 2.6 percent of GDP respectively.

Figure 9
Private households

Who is afraid of rising rates?

Interest payable as % of disposable income: Historic values and estimated values in the year 2022 by scenario
in percent



Sources: Eurostat, ECB, Allianz Research.

European companies have enough buffers to cope with progressively higher interest rates

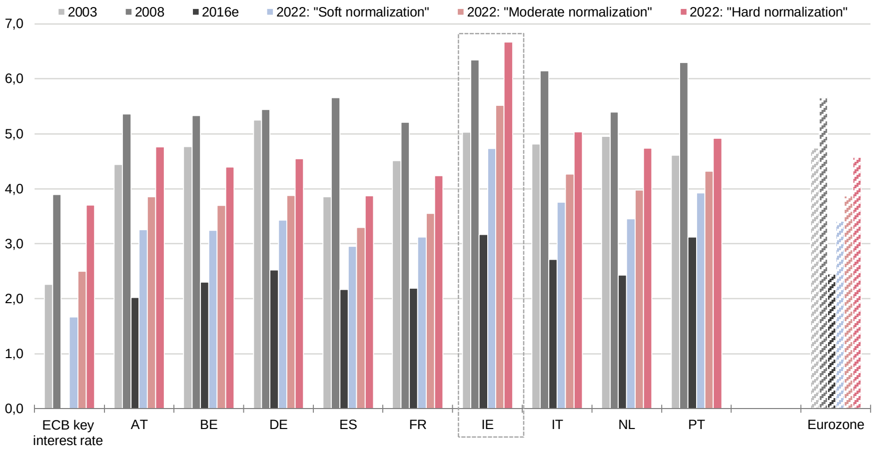
In our baseline scenario, “soft normalization”, bank interest rates for non-financial corporations would start rising moderately in 2019 when the ECB is expected to hike its key interest rate for the first time since 2011. Until 2022, average eurozone bank lending rates for non-financial corporations would rise by a cumulative +100basis points to 3.4 percent. In the “hard normalization” scenario the increase would be twice stronger at +212basis points to 4.6 percent.

Looking at countries, rate increases in the “soft normalization” scenario are expected to be clearly above the eurozone average in Ireland (+156basis points) and Austria (+123), Italy (+105) and the Netherlands (+103bp). As mentioned in the previous section, in the “hard normalization” scenario we expect the ECB key rate to reach 4.25 percent at end-2022. Consequently, the increases in bank interest rates for non-financial corporations would be much higher than in the “soft normalization” scenario, with the steepest increases again in Ireland (+350basis points), Austria (+274), the Netherlands (231) and Italy (232).

Figure 10
Non-financial corporations

Looking ahead: Nothing to fear (but inflation)

Historic and estimated average interest rates on bank loans by scenario
in percent



Sources: Eurostat, ECB, Allianz Research.

Depending on the scenario, eurozone total interest expenditures would increase by varying degrees (always compared to 2016):

- In the "soft normalization" scenario by 60 percent or EUR 63bn; in percentage of GDP, expenditures would rise from 1.0 to 1.3 percent of GDP
- In the "moderate normalization" scenario by 81 percent or EUR 85bn (+0.5 percentage points of GDP)
- In the "hard normalization" by 114 percent or EUR 120bn (+0.8 percentage points of GDP).

As percentage of GDP, the strongest increase can be expected in the Netherlands and Austria, each reaching above eurozone average levels of 0.7 percent of GDP ("soft normalization") to 1.4 percent of GDP ("hard normalization"), reflecting relatively high debt burdens, in particular in the Netherlands. France, Italy and Portugal will be next in line. Germany will remain at the bottom of the list given lower corporate debt levels compared to its European peers.

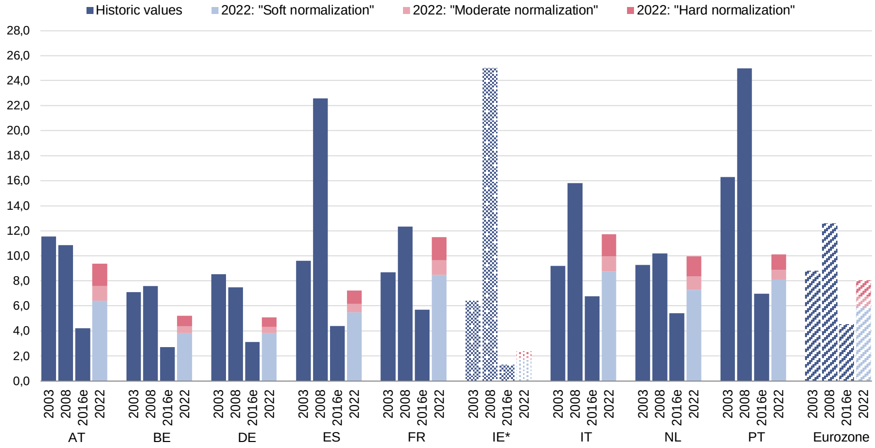
Looking at the interest expenditures in percent of operating surplus in 2022 in the "soft normalization" scenario, they are expected to reach 6 percent of the gross operating surplus in the Eurozone as a whole (from 4.5 percent in 2016, see figure 11) with the highest ratios in Italy (8.8 percent), France (8.5 percent) and Portugal (8.1 percent).

In the "moderate normalization" scenario, interest expenditures in percent of operating surplus would reach 6.8 percent while in the "hard normalization" scenario the rise would be much more dramatic: up to 8.0 percent. Even in the "hard normalization" scenario, interest expenditures will remain far below the 2008 highs equivalent to 12.6 percent of gross operating surplus. In the "hard normalization" scenario the ratios will be above 10 percent of gross operating surplus in Italy (11.7 percent), France (11.5 percent) and Portugal (10.1 percent).

Figure 11
Non-financial corporations

Rising rates are manageable (mostly)

Interest payable as % of operating surplus, historic values and estimated values in the year 2022 by scenario
in percent



*One-off effect: From 2015 onwards, data is not comparable due to changes in the National Accounts Statistics.

Sources: Eurostat, ECB, Allianz Research.

In order to assess non-financial corporations' vulnerability to a rise in average bank interest rates in these countries, we looked also at companies' cash holdings (see figure 12). We conclude that France and, to a lesser extent, Italy are fairly comfortably placed. In addition, these two countries have enjoyed one of the steepest increases in margins in 2016 while reflationary trends in 2017 and thus rising turnovers and demand should support this trend further. On the other hand, Portugal is clearly in a weak position given low cash holdings and high debt.

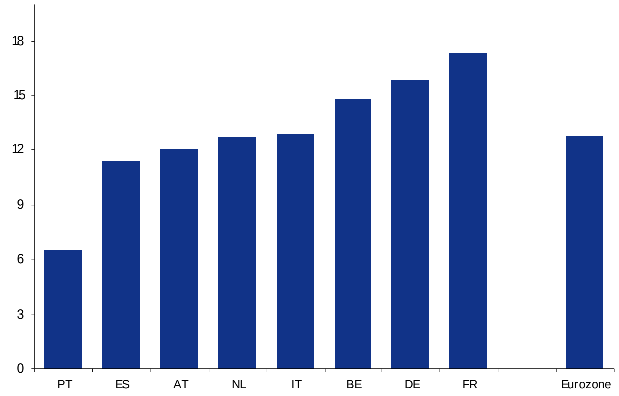
Looked at by sector, and especially at those that are capital intensive, Euler Hermes assessment[4] (see figure 13) points to potential liquidity vulnerabilities in the construction sector in Portugal, the Netherlands, Italy and, to a lesser extent, France. In the metal sector, vulnerabilities have been identified in Portugal, the Netherlands and France. The pharmaceutical sector in Portugal is also on the 'to watch' list.

[4] The liquidity vulnerability is calculated through a proxy that indicates the future evolution of liquidity risk for capital intensive sectors, with 4 measures at stake: (i) sector liquidity risk assessment (cash position, outlook to access financing, payment behavior), (ii) short-term macroeconomic financing risk based on sensitivity to swings in capital flows and policy capacity to respond effectively, (iii) access to affordable cost of financing, and (iv) availability of domestic credit.

Figure 12
Non-financial corporations

Cash is king

Total cash in percentage of balance sheet (2015)
in percent



Sources: Eurostat, ECB, Allianz Research.

Figure 13
Non-financial corporations

Sector heat map: Construction and Portugal to watch

Liquidity sector grades (2017, q1)

Sector	Capital Intensity	France	Italy	Netherlands	Austria	Portugal
Automotive manufacturers	very high	1	2		1	1
Automotive suppliers	very high	1	2	2	1	1
Paper	very high	3	2	3	1	2
Metal	very high	3	2	3	2	3
Machinery	very high	2		2	1	2
Aeronautics	very high	2	2	2	1	2
Energy	very high	2	1	2	1	1
Chemicals	high	1	1	1	1	2
Pharma	high	1	1	1	1	3
Construction	moderate	3	3	3	2	3
Transport	moderate	2	3	2	2	2
Food	moderate	1		2	1	2
Textile	moderate	3	2	2	2	2
Electronics	moderate	2	2	1	2	3
Retail	moderate	2		3	2	2
IT Services	moderate	1	2	2	2	2
Household	moderate	2	3	2	2	3
Computer	moderate	2	2	2	2	2

Low liquidity contraints
Medium liquidity contraints
Sensitive liquidity contraints
High liquidity contraints

Sources: Eurostat, ECB, EulerHermes.

These assessments are, as always, subject to the disclaimer provided below.

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