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Kathrin Brandmeir, Arne Holzhausen

The net interest income of private households

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AUTHORS:

Kathrin Brandmeir
Tel. +49.89.3800-19012
kathrin.brandmeir@allianz.com

Dr. Arne Holzhausen
Tel. +49.89.3800-17947
arne.holzhausen@allianz.com

1. Summary

In summer 2017, the ECB made a surprising move by releasing calculations on the net interest income of households in various EMU countries. According to the ECB's data, the income effects of the low interest rates were low in general (totaling up to 2% of GDP at the most), to the extent of being negligible in Germany. What is more, there were no signs of any pattern emerging with regard to the effects - with more positive effects on the (indebted) "south" of the continent and more negative effects on the (thrifty) "north".

These results can be explained primarily by the assumptions underlying the calculation: first, the ECB uses interest rates after the allocation of financial intermediation services indirectly measured (FISIM), which has a dampening effect on the changes in net interest income. Second, the ECB abstracts from changes in stock in order to isolate the pure price effect. Finally, the ECB also opts not to cumulate the annual changes and merely compares the start and the end of the development.

If these assumptions are altered, then the development in net interest income tells a different story. If we leave financial intermediation services indirectly measured out of the equation (interest before FISIM) and take the changes in stock into account, then the fluctuations in net interest income are anything but trivial.

The net interest income of German households, for example, has dropped by EUR 15 billion since 2008; all in all, the annual losses incurred during the years of the low interest rates come to just shy of EUR 100 billion or 3.1% of GDP. This means that German households rank among the losers of the extreme monetary policy.

And they are not alone: other countries renowned for being "savers", such as Belgium (-9.8% of GDP) and Austria (-3%) are having to digest hefty losses as far as net interest income is concerned. On the other hand, "debtor countries" such as Spain (+11.2%) and Portugal (+14.1%) are reaping substantial benefits. This means that the well-known narrative of the period of low interest rates - good for the "south" and bad for the "north" - continues to apply.

At first glance, Italy would appear to be the exception to the rule: here, too, the cumulative drop in net interest income is a very substantial one (-9.8% of GDP). First, however, Italian households are by no means highly indebted and second, they stand out due to their particular investment behavior: nowhere else in the eurozone are there so many bonds in private portfolios as there are in Italy. The correction to this preference in times of low interest rates made a significant contribution to the pronounced slump in interest income.

Conclusion: The ECB's calculations are very dependent on its specific assumptions. Using different but not unrealistic assumptions, the analysis of the development in household net interest income shows that persistently low interest rates have a dramatic impact on income: also, and particularly so, in Germany.

2. LOW INTEREST RATES: GOOD, BAD OR IRRELEVANT FOR PRIVATE HOUSEHOLDS?

The impact of the low interest rates on private households is a controversial matter. While there is a broad consensus that sovereigns and non-financial companies are benefitting from the low interest rates due to their financing positions on the one hand, whereas the financial sector is suffering on the other, opinions on the position of private households vary considerably, not least also with regard to the situation in Germany.

The majority of studies conducted by research and financial institutions conclude that German savers rank among the "losers" on average, because the income losses in Germany associated with interest-bearing assets by far exceed any relief on the credit side.¹ The European Central Bank (ECB), on the other hand, reaches a different conclusion. Its calculations on household net interest income suggest the period of low interest rates that has been ongoing since 2008 has left savers virtually unscathed. "In Germany (...), the change in net interest income of the household sector was negligible."²

So how do we explain these vastly different results? This is the question that this paper seeks to answer. The first step involves "retracing" the ECB's calculations in order to understand how the ECB arrived at the results. The second step then involves repeating the ECB's calculation method but with assumptions that in our view reflect the actual situation of private households. The two approaches produce profound differences when it comes to net interest income in the household sector. First of all, however, a number of key terms have to be defined. Because not all references to "interest income" mean the same thing.

BOX: WHAT IS FISIM?

The national accounts refer to two forms of interest income and expense: before and after "FISIM", which stands for "Financial Intermediation Services, Indirectly Measured". This is calculated by adding/deducting the indirect fees charged by banks as part of their lending and deposit business, calculated using models, to/from the interest payments actually made.

In other words: the national accounts assume that interest payments consist of two components: the "pure" interest and the price for the banking service (e.g. loan processing, deposit management, etc.). This is why, for example, the interest income of private households is much higher with FISIM – after all, this income also settles any service fees relating to account management which the banks, however, conveniently withhold right away (which is why they are referred to as indirect fees). Interest expenses, on the other hand, are much lower, because part of the interest payments "actually" refers to the service fees for loan processing (which, however, are not directly reported by the banks).

The differences between the interest measurement before and after FISIM are by no means trivial, as a look at the German national accounts for 2016 reveals: according to these statistics, private households were faced with interest expenses of EUR 59.5 billion and earned interest income of EUR 15.9 billion in that year. By contrast, the figures after taking indirect bank fees into account are as follows: interest expense of

¹ We also rank among this group of researchers; cf. for example Holzhausen & Sikova (2015), *Niedrigzinsen, Einkommen und Vermögen: Wer gewinnt, wer verliert?* (Low interest rates, incomes and assets: the winners and the losers), Working Paper 190, Allianz Economic Research.

² ECB (2017), Economic Bulletin, Issue 5 / 2017, p. 37.

EUR 26 billion and interest income of EUR 37.6 billion. This means that FISIM turns net interest income that is well in the red (EUR -43.6 billion) into a sizeable surplus (EUR +11.7 billion). This shows that the method used to calculate interest has a considerable impact on the result of the calculations.

As a result, our analysis below always discloses the definition of interest on which the calculations are based. In general, however, we do not believe that it makes much sense to look at interest income and expenses after the allocation of financial intermediation services indirectly measured for the purposes of our analysis - namely to assess the impact that the low interest rates have had on household finances. After all, while this sort of break-down might be consistent with the logic behind the national accounts, in the sense that it facilitates an estimate of the contribution to added value made by the banking sector, it does not reflect the reality of life for savers. After all, savers do not live in a theoretical world; they are not interested in what could have been credited to their account at the end of the year if the indirect banking services had been taken into account - rather, they are only interested in the funds that actually end up in their account. The same applies to their interest expenses, which no saver is likely to break down into pure interest payments and fees in his head (after all, what formula would he use?); what is relevant is the amount that has to be paid to the bank every month.

3. WHAT THE ECB CALCULATED

In its analysis, the ECB calculates³ the development in the net interest income of private households since the start of monetary easing in 2008. Net interest income is the difference between interest income (household interest income from bank deposits and bonds⁴) and interest expenses (household interest payments on loans).⁵ The ECB uses interest payments *after* FISIM.

Another special feature of the ECB's calculations is that the ECB only looks at the pure price/interest effect and leaves changes in stock out of the equation. In order to achieve this, it starts by calculating the implied interest rate for assets and liabilities in each period (interest income/expenses divided by the relevant stock of assets/liabilities). The difference between the current and the original interest rate, in relation to the initial value of the assets/liabilities, produces the changes in interest income/expenses that can be explained solely by the change in interest rates. The balance of interest income and expenses results in net interest income.⁶ The figures from the national accounts can be used to "retrace" the ECB's calculations (see figure 1).

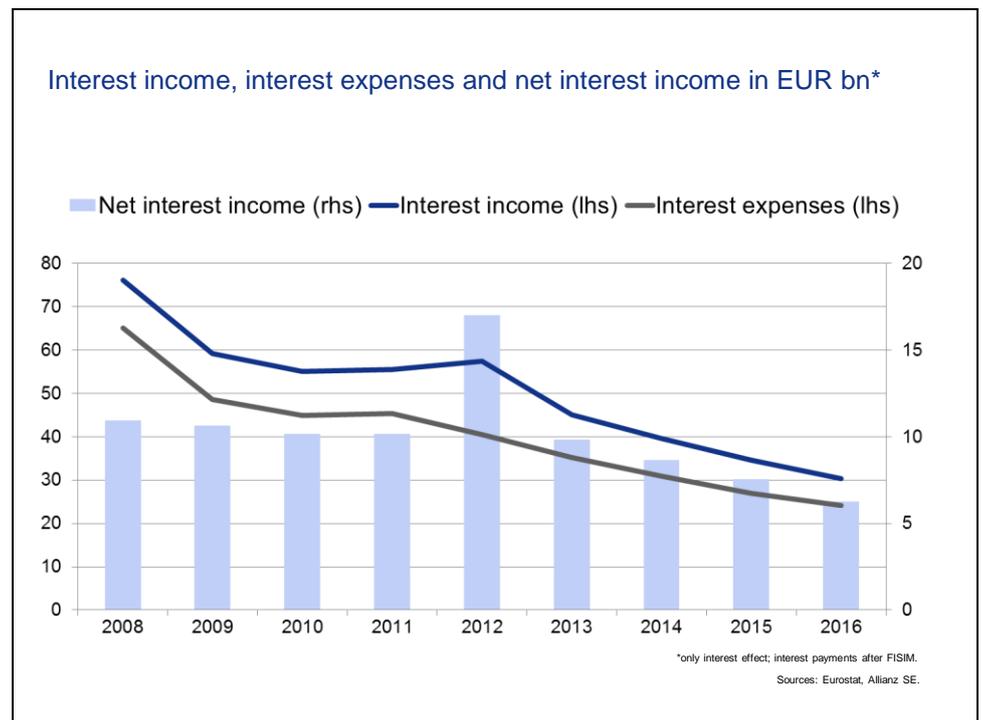
³ Ibid.

⁴ The analysis does not include price gains on bonds held, i.e. it is based on the implicit assumption that households hold their bonds to maturity.

⁵ A number of voices are also critical of the fact that the ECB does not include household claims from insurance companies and pension systems. This is, however, due to the logic behind the approach: the ECB is looking at income, not wealth, effects - otherwise, it would also have to include changes in bond prices and the (positive) impact of the low interest rates on shares and investment funds, for example. Obviously, the development of assets held with insurance companies and pension funds also depends to a considerable degree on the interest rate levels. Households do not, however, generate annual interest income from these assets, meaning that any gains do not yet end up in savers' wallets. In other words: these effects of the low interest rates will only affect savers later on, particularly when they start receiving retirement income. Although these long-term effects are likely to have much more of an impact than today's income gains or losses, it is still virtually impossible to quantify them.

⁶ The corresponding formula is: $A_0 (i_t - i_0) - L_0 (i_t - i_0)$, where A_0 and L_0 refer to the initial value of the assets and liabilities respectively, i_0 represents the interest rate at the time and i_t represents the current interest rate.

Figure 1: Net interest income of private households in Germany (ECB calculation)



What is striking at first glance: the net interest income of German households has dropped more or less continuously during the period of low interest rates – with the exception of 2012, a late effect of the rate hikes implemented by the ECB in the meantime. But the drop is by no means dramatic: in 2008, net interest income came to EUR 10.9 billion and was not drastically lower eight years later, when it totaled EUR 6.3 billion. The drop only comes to 0.23 percentage points in relation to GDP as well (2008: 0.43%; 2016: 0.20%). And thanks to the increase in 2012, the cumulative annual changes in net interest income (in relation to the base year of 2008) are also on the low side. All in all, they amount to a total of minus EUR 7.2 billion (0.2% of GDP) for German savers – distributed over the eight years of the period of low interest rates.⁷ In this respect, the ECB's statement that the change in net interest income of the household sector has been negligible can, to all intents and purposes, be substantiated. In the other EMU countries, on the other hand, developments have varied considerably (see figure 2).

⁷ Unlike the ECB, which has opted for a purely time-based comparison – start of the low interest rates vs. today – our analysis accumulates the changes in net interest income observed year after year – after all, households have, in fact, ultimately had more or less in their wallets in each year of the low interest rates.

Figure 2: Cumulative changes in the net interest income of private households as a % of GDP (ECB calculation)

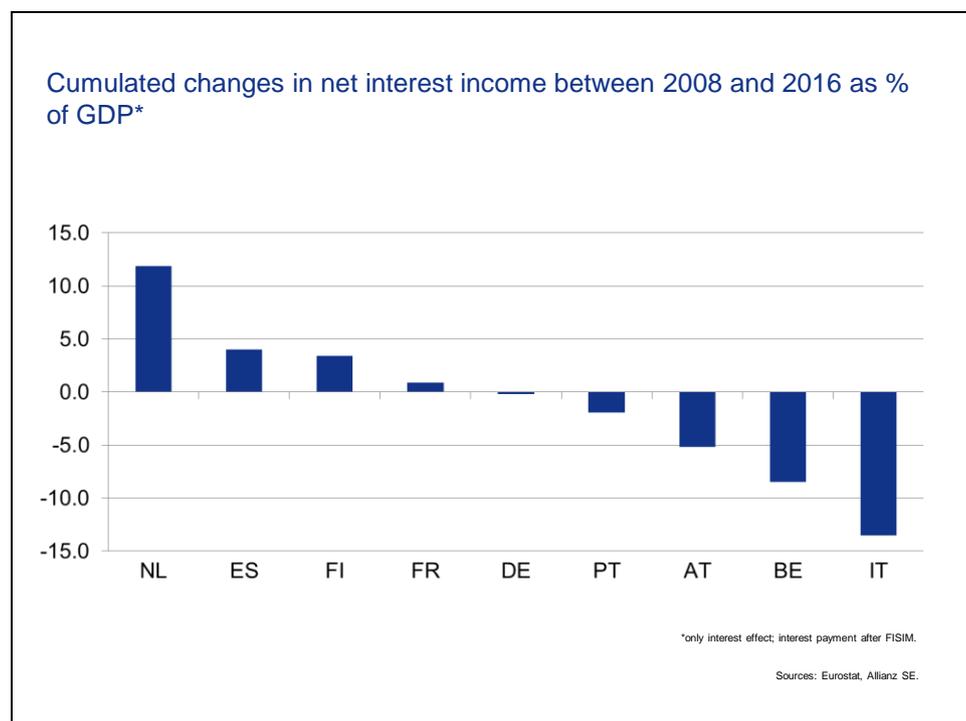


Figure 2 shows – based on the ECB's calculation method– the cumulative changes in the net interest income of households in selected EMU countries (to the extent that data is available). It does, in fact, emerge that these changes are lower in Germany than in any other country. The fluctuations in France and Portugal are relatively small, too. On the other hand, there has been a marked downward trend in Austria, Belgium and Italy - the very three countries which, at the start of the period of low interest rates in 2008, not only had the lowest debt ratios (household liabilities expressed as a percentage of GDP) in the eurozone at around 50%, but also had the biggest surplus of interest-bearing assets over liabilities, meaning that they benefitted the least from relief on the lending side. In Austria and Belgium, the high proportion of bank deposits plays a key role. In Italy, the main factor responsible for the slump in interest income can be found in the considerable bond holdings: in 2008, Italian savers held EUR 800 billion in the form of bonds, more than three times as much as their German counterparts.

The Netherlands, home to the most indebted households in the eurozone by far, is at the other end of the scale: the debt ratio came to 120% in 2008, with liabilities twice as high as assets. Spain also had a very high level of private debt back then, meaning that it benefitted from the marked drop in lending interest rates in the ensuing period because most mortgage loans are variable-rate loans. Although Finland does not quite fit the pattern geographically, Finnish households also had a much higher volume of liabilities than assets (30% higher); what is more, lending interest rates in Finland have been on a particularly pronounced downward trend in recent years.

This means that, all in all, the ECB's analysis also paints a slightly different picture to the usual narrative, which portrays the south as the winners and the north as the losers of the low interest rates.

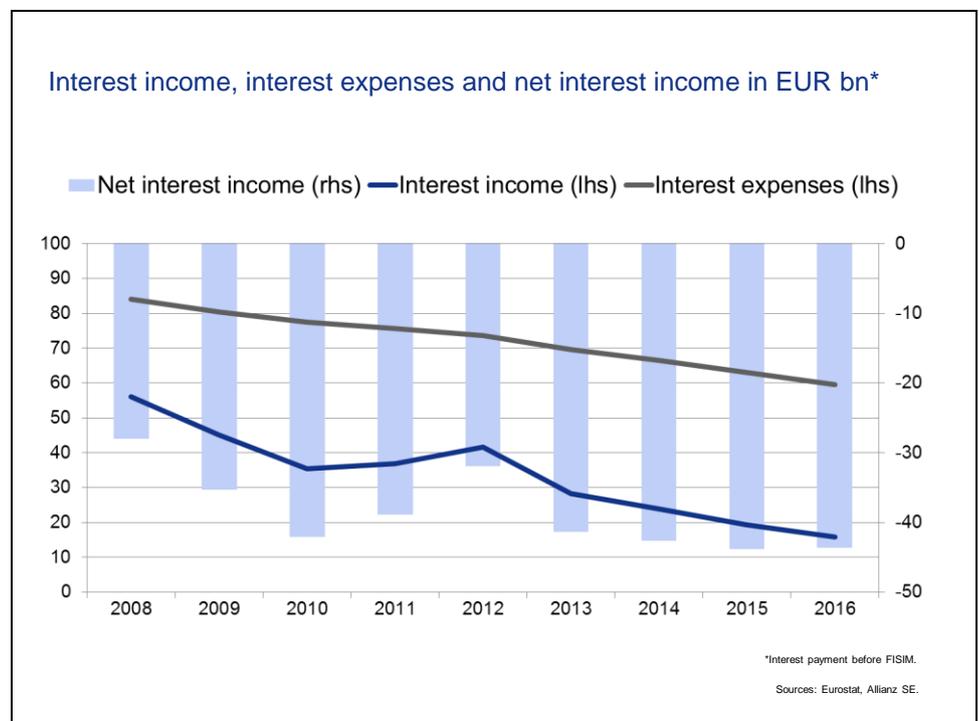
4. WHAT HAS ACTUALLY HAPPENED

The chapter above goes to show that the ECB's calculations are consistent and legitimate when it comes to performing an isolated analysis of the pure interest rate effect. However, they are not, in our view, a reflection of private households' actual situation.

This first of all applies to the definition of interest used – interest payments *after* FISIM – which does not reflect the actual cash flows to households (see box above). Second, it applies to the assumption of stable volumes. This is because there have been, in some cases drastic, changes in volumes in recent years, also as a conscious reaction to the low interest rates. Italian households, for example, have more than halved their bond holdings over the last eight years - the "abolition" of interest has quite simply rendered this asset class unattractive. On the other hand, German savers have stepped up their bank deposits by just under 40% since 2008 - testimony to the mood of uncertainty in the wake of the financial crisis and the desperate efforts to keep interest income stable. By contrast, German household liabilities have grown by only around 10% during the same period. Spanish households, on the other hand, have whittled their liabilities down by 20% in absolute terms, while bank deposits have increased by almost one quarter. Shifts of this magnitude obviously have a – far from negligible – impact on net interest income.

As a result, figure 3 shows the development in net interest income in Germany in line with the ECB's calculation method, but taking the actual interest payments (*before* FISIM) and the changes in stock into account. The results show fundamental differences compared with the ECB's analysis in two respects.

Figure 3: Net interest income of private households in Germany (actual)



First, net interest income is consistently negative. This may come as a surprise because, during the period covered by our analysis, interest-bearing assets were consistently higher than household bank loans, ultimately exceeding them by a good third in 2016.

But the interest differential between the asset and liabilities side, which has widened overall since 2008, also plays a key role in determining net interest income. This reflects differences in the speed of adjustment: whereas deposit interest rates are adjusted to reflect the key monetary policy rate fairly quickly, it takes some time for lending rates to adjust, not least due to the long fixed-interest periods that are common practice for mortgage loans in Germany.

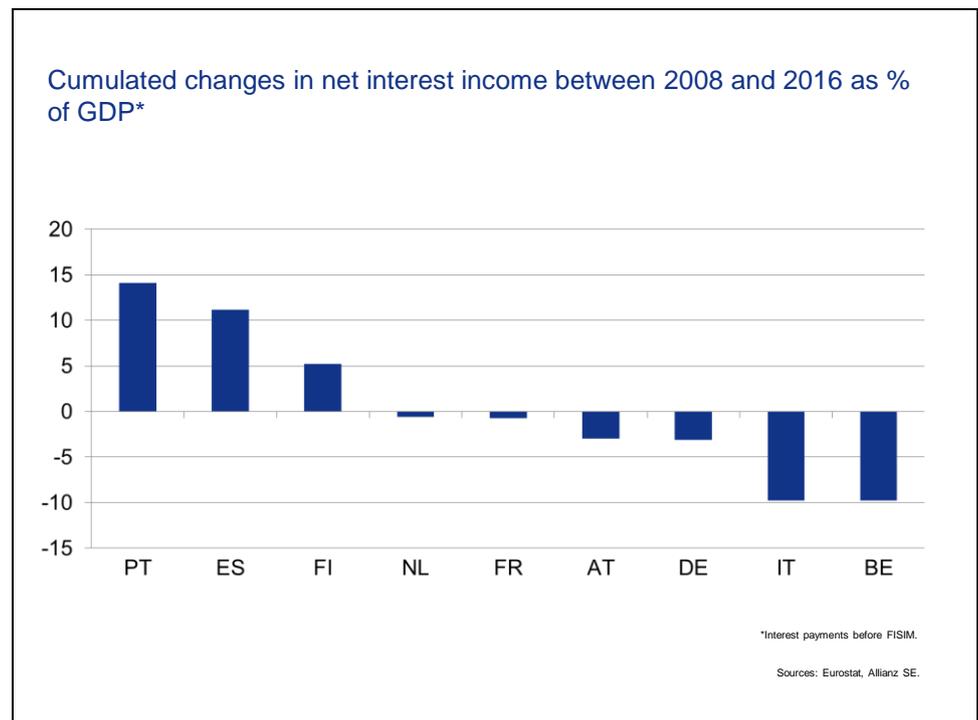
Second, the development is not linear, but rather comes in waves due to the fluctuations in interest income. In the first few years, for example, net interest income plummeted before bouncing back again in 2011 and 2012. Interest income stabilized during this period due to the ECB's short-lived attempts to initiate a (premature) interest rate turnaround. In 2013, it returned to a steep downward trajectory. The impact of Draghi's famous "whatever it takes" speech unfolded in full, sending interest rates spiraling downwards. Finally, in the last three years of our analysis, net interest income is relatively stable - at a low level - because interest expenses fell somewhat more quickly, while interest income fell somewhat more slowly, thanks to rising deposit volumes.

All in all, however, net interest income today is much lower than it was at the start of the period of low interest rates, having dropped back from EUR -28 billion (2008) to almost EUR -44 billion (2016). And if the annual changes in net interest income (in relation to the base year of 2008) are cumulated, then we arrive at a total of minus EUR 96 billion for German savers – this figure can no longer be described as negligible: these interest losses correspond to 3.1% of GDP (2016).⁸

The income gains or losses resulting from the change in net interest income in the years of the low interest rates are also very high in a number of other EMU countries (see figure 4). And as in Germany's case, the evaluation of the impact of the low interest rates often produces different results if assumed fees for banking services are excluded, but changes in volume are, in fact, included.

⁸ Expressed as a percentage of GDP and only in relation to the two endpoints, however, the development looks less dramatic: net interest income has fallen from -1.1% (2008) to -1.4% (2016); the movements in the years in between, however, which are largely responsible for the substantial cumulative losses, are left out of the equation.

Figure 4: Cumulative changes in the net interest income of private households (actual)



Based on the ECB's calculation (see figure 2), the Netherlands, Finland and Spain ranked among the "winners" of the low interest rate policy. This still applies to Spain and Finland. As far as Spain is concerned, the changes in volume are also likely to have contributed to the substantial interest rate gains: the marked increase in deposits put a damper on the drop in interest income, while the reduction in loans accelerated the drop in interest expenses. Contrary to the ECB's calculations, however, Portuguese households now also rank among this group, with developments following a similar trajectory to those in its neighboring country: rising assets and declining liabilities turned a negative net interest result at the start of the low interest rate period into a positive one.⁹

On the other hand, households in the Netherlands no longer rank among the "interest rate winners": Rather, the low interest rates were something of a non-event for Dutch savers; net interest income remained virtually unchanged because interest income and expense fell more or less in tandem with each other. This is due to a more or less parallel development in volumes (rising in each case) and interest (falling in each case). The marked discrepancy compared with the ECB calculations can be explained largely by the definition of interest used. Whereas interest expenses taking assumed bank fees into account have fallen by 85% since 2008, the actual drop only comes to 17%.¹⁰

According to the ECB, the "interest rate losers" included Austria, Italy and Belgium. Not much has changed in this respect. As far as Italian households are concerned, this is due largely to the dramatic slump in interest income, a trend that was fueled not least by the drastic reduction in the bond portfolio, which was slashed from around EUR 800 billion

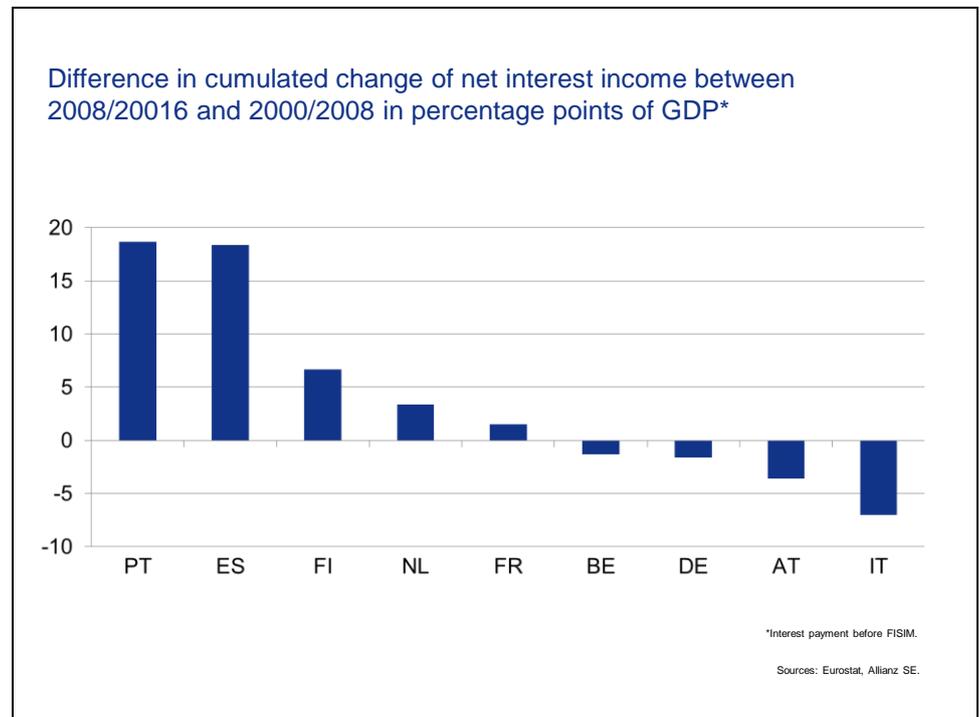
⁹If we look at interest payments *after* FISIM, on the other hand, Portuguese households consistently reported a positive net interest result, even at the start of the low interest rate period - when assets and liabilities were still virtually neck and neck. This once again highlights just how removed from reality the system of looking at interest *after* FISIM is: based on this approach, deposit interest was considerably higher than the interest on loans!

¹⁰The discrepancy for interest income is not quite as high: -89% after FISIM, but "only" -59% before FISIM.

(end of 2008) to EUR 360 billion. As a result - despite an increase in bank deposits - interest-bearing assets have fallen by a good 10%. Interest income plays a decisive role in Austria, too, plummeting by almost 80% during the period under review, despite the fact that assets have grown by 20%. Finally, in Belgium's case, it is primarily the (slight) increase in interest expenses that is responsible for the drop in the net interest result. This development, which bucked the trend, is due to rising debt levels and what has been only a very slow drop in interest rates in this area. In addition to households in these three countries, however, German households now also have to be counted among the losers, with cumulative interest losses corresponding to three percent of GDP. Let us finish by briefly turning our attention to France: here, too, assets and liabilities have been developing largely in sync with each other, as in the Netherlands. This produces net interest income which has hardly changed with only a small degree of fluctuation.

These results differ considerably from those presented by the ECB. In actual fact, the main winners of the low interest rates have been the southern euro crisis countries, such as Portugal and Spain, whereas "countries of savers" like Germany, Austria and Belgium have lost out. This becomes all the more evident if we compare the development in net interest income before and after the crisis (see figure 5). The biggest swing was achieved by households in Portugal and Spain, where net interest income was deteriorating on an ongoing basis prior to the crisis before moving in the opposite direction at the start of the low interest rate phase. Households in Finland, the Netherlands and France have also fared better in general during the years of the low interest rates. In Germany, Austria and Belgium, on the other hand, the trend over the last eight years has been much more negative than in the pre-crisis years, with the net interest income of Belgium and Austrian households moving from the black into the red.

Figure 5: Comparison of changes in the net interest income of private households before and after the crisis (actual)



Our analysis shows that savers in Germany rank among the losers of the extreme monetary policy. The well-known narrative of the low interest rates is restored - albeit with one

exception: Italy does not follow the pattern. First, however, Italian households are by no means highly indebted and second, they stand out due to their particular investment behavior: nowhere else in the eurozone are there so many bonds in private portfolios as there are in Italy. The correction to this preference in times of low interest rates made a significant contribution to the pronounced slump in interest income. In other words: Italy's dwindling net interest income can be traced back not only to the drop in interest rates, but also to changes in investment behavior.

5. APPENDIX OF TABLES

Belgium (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	322	344	361	379	399	408	412	412	413
	Interest-bearing liabilities*	164	174	182	196	208	215	225	236	246
ECB-Calculations**	Interest income	14.1	10.4	8.8	8.4	6.7	4.5	3.0	2.1	1.5
	Interest expenses	6.4	3.9	3.1	3.2	2.8	1.8	1.8	1.5	1.3
	Net interest income (NII)	7.7	6.5	5.6	5.2	3.9	2.6	1.2	0.6	0.2
	NII as % of GDP	2.2%	1.9%	1.5%	1.4%	1.0%	0.7%	0.3%	0.1%	0.1%
	Difference NII compared to 2008**		-1.3	-3.4	-5.9	-9.7	-14.8	-21.3	-28.5	-36.0
	as % of GDP		-0.4%	-0.9%	-1.6%	-2.5%	-3.8%	-5.3%	-6.9%	-8.5%
actual development	Interest income	10.7	9.6	8.8	8.5	7.5	6.2	4.5	3.9	3.5
	Interest expenses	7.7	8.1	7.9	8.2	8.5	8.7	9.4	9.5	9.6
	Net interest income (NII)	3.0	1.6	0.9	0.3	-1.0	-2.5	-4.9	-5.6	-6.2
	NZE in % des BIP	0.8%	0.4%	0.3%	0.1%	-0.3%	-0.6%	-1.2%	-1.4%	-1.5%
	Difference NII compared to 2008**		-1.5	-3.5	-6.3	-10.3	-15.8	-23.7	-32.3	-41.5
	as % of GDP		-0.4%	-1.0%	-1.7%	-2.7%	-4.0%	-5.9%	-7.9%	-9.8%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Germany (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	1,788	1,841	1,889	1,944	2,005	2,056	2,098	2,149	2,214
	Interest-bearing liabilities*	1,529	1,520	1,521	1,531	1,546	1,559	1,575	1,605	1,647
ECB-Calculations**	Interest income	76.1	59.2	55.1	55.5	57.5	45.0	39.6	34.6	30.4
	Interest expenses	65.1	48.5	44.9	45.3	40.5	35.2	31.0	27.0	24.1
	Net interest income (NII)	10.9	10.6	10.2	10.2	17.0	9.8	8.6	7.6	6.3
	NII as % of GDP	0.4%	0.4%	0.4%	0.4%	0.6%	0.3%	0.3%	0.2%	0.2%
	Difference NII compared to 2008**		-0.3	-1.1	-1.9	4.2	3.1	0.8	-2.6	-7.2
	as % of GDP		0.0%	0.0%	-0.1%	0.2%	0.1%	0.0%	-0.1%	-0.2%
actual development	Interest income	56.1	45.2	35.4	36.9	41.6	28.2	23.9	19.3	15.9
	Interest expenses	84.1	80.5	77.4	75.7	73.6	69.6	66.6	63.1	59.5
	Net interest income (NII)	-28.0	-35.3	-42.1	-38.8	-31.9	-41.4	-42.6	-43.8	-43.6
	NZE in % des BIP	-1.1%	-1.4%	-1.6%	-1.4%	-1.2%	-1.5%	-1.5%	-1.4%	-1.4%
	Difference NII compared to 2008**		-7.3	-21.4	-32.3	-36.3	-49.7	-64.4	-80.2	-95.9
	as % of GDP		-0.3%	-0.8%	-1.2%	-1.3%	-1.8%	-2.2%	-2.6%	-3.1%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Finland (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	75	79	82	88	90	89	89	88	90
	Interest-bearing liabilities*	99	105	111	118	124	129	132	137	142
ECB-Calculations**	Interest income	4.3	2.0	1.3	1.8	1.5	1.1	1.0	0.9	0.7
	Interest expenses	4.9	1.9	0.9	1.7	1.3	0.7	0.6	0.4	0.3
	Net interest income (NII)	-0.6	0.1	0.3	0.1	0.3	0.4	0.5	0.5	0.4
	NII as % of GDP	-0.3%	0.1%	0.2%	0.0%	0.1%	0.2%	0.2%	0.2%	0.2%
	Difference NII compared to 2008**		0.7	1.6	2.3	3.2	4.2	5.3	6.4	7.4
	as % of GDP		0.4%	0.9%	1.2%	1.6%	2.1%	2.6%	3.0%	3.4%
actual development	Interest income	2.4	1.5	1.2	1.3	1.3	1.0	1.0	0.9	0.7
	Interest expenses	5.2	3.2	2.4	2.9	2.7	2.1	2.2	2.1	1.9
	Net interest income (NII)	-2.7	-1.7	-1.2	-1.6	-1.3	-1.1	-1.2	-1.2	-1.2
	NZE in % des BIP	-1.4%	-0.9%	-0.7%	-0.8%	-0.7%	-0.5%	-0.6%	-0.6%	-0.5%
	Difference NII compared to 2008**		1.0	2.5	3.7	5.0	6.7	8.1	9.7	11.2
	as % of GDP		0.6%	1.4%	1.9%	2.5%	3.3%	4.0%	4.6%	5.2%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

France (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	1,134	1,170	1,193	1,238	1,301	1,345	1,367	1,392	1,422
	Interest-bearing liabilities*	937	994	1,046	1,101	1,141	1,165	1,188	1,217	1,255
ECB-Calculations**	Interest income	48.5	31.6	23.7	27.2	25.1	20.0	16.3	16.4	14.9
	Interest expenses	46.3	27.1	18.6	21.6	19.6	15.3	11.9	11.9	10.6
	Net interest income (NII)	2.3	4.5	5.2	5.6	5.4	4.7	4.5	4.4	4.3
	NII as % of GDP	0.1%	0.2%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%
	Difference NII compared to 2008**		2.3	5.2	8.5	11.6	14.1	16.3	18.4	20.5
	as % of GDP		0.1%	0.3%	0.4%	0.6%	0.7%	0.8%	0.8%	0.9%
actual development	Interest income	27.3	21.1	19.2	22.6	24.4	21.2	18.9	17.1	15.9
	Interest expenses	44.5	41.3	40.2	41.2	42.5	40.8	38.8	37.1	32.5
	Net interest income (NII)	-17.2	-20.2	-21.0	-18.6	-18.1	-19.6	-19.8	-19.9	-16.7
	NZE in % des BIP	-0.9%	-1.0%	-1.1%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%	-0.7%
	Difference NII compared to 2008**		-3.0	-6.7	-8.1	-8.9	-11.3	-13.9	-16.6	-16.0
	as % of GDP		-0.2%	-0.3%	-0.4%	-0.4%	-0.5%	-0.6%	-0.8%	-0.7%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Italy (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	1,733	1,788	1,759	1,738	1,766	1,752	1,673	1,591	1,549
	Interest-bearing liabilities*	626	653	684	709	713	703	695	692	695
ECB-Calculations**	Interest income	95.9	59.2	46.8	58.1	54.9	47.9	46.5	41.0	38.1
	Interest expenses	29.5	14.6	11.5	16.4	15.4	9.3	8.7	6.2	4.9
	Net interest income (NII)	66.4	44.5	35.3	41.6	39.5	38.6	37.8	34.8	33.2
	NII as % of GDP	4.1%	2.8%	2.2%	2.5%	2.5%	2.4%	2.3%	2.1%	2.0%
	Difference NII compared to 2008**		-21.9	-53.0	-77.8	-104.6	-132.4	-161.1	-192.7	-225.9
	as % of GDP		-1.4%	-3.3%	-4.7%	-6.5%	-8.3%	-9.9%	-11.7%	-13.5%
actual development	Interest income	78.3	55.2	45.4	53.1	54.6	47.3	42.9	36.6	34.0
	Interest expenses	40.6	32.9	31.5	35.2	34.0	28.4	25.9	24.0	22.2
	Net interest income (NII)	37.6	22.3	13.8	17.9	20.7	21.0	16.9	12.7	11.7
	NZE in % des BIP	2.3%	1.4%	0.9%	1.1%	1.3%	1.3%	1.0%	0.8%	0.7%
	Difference NII compared to 2008**		-15.3	-39.1	-58.8	-75.8	-92.4	-113.1	-138.0	-163.8
	as % of GDP		-1.0%	-2.4%	-3.6%	-4.7%	-5.8%	-7.0%	-8.4%	-9.8%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Netherlands (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	358	374	385	395	406	409	410	416	423
	Interest-bearing liabilities*	689	719	741	755	762	755	746	750	757
ECB-Calculations**	Interest income	15.6	8.1	6.5	7.2	4.1	3.8	3.4	2.5	1.5
	Interest expenses	30.2	15.6	11.8	13.4	7.4	6.4	6.4	5.4	4.0
	Net interest income (NII)	-14.6	-7.5	-5.3	-6.2	-3.2	-2.6	-2.9	-2.9	-2.6
	NII as % of GDP	-2.3%	-1.2%	-0.8%	-1.0%	-0.5%	-0.4%	-0.4%	-0.4%	-0.4%
	Difference NII compared to 2008**		7.1	16.4	24.7	36.1	48.1	59.8	71.4	83.4
	as % of GDP		1.1%	2.6%	3.8%	5.6%	7.4%	9.0%	10.5%	11.9%
actual development	Interest income	9.8	9.0	7.8	8.3	8.5	6.7	6.0	5.6	4.0
	Interest expenses	35.6	35.5	35.0	35.6	34.6	32.9	31.8	31.6	29.5
	Net interest income (NII)	-25.8	-26.5	-27.2	-27.3	-26.0	-26.2	-25.8	-26.0	-25.5
	NZE in % des BIP	-4.0%	-4.3%	-4.3%	-4.2%	-4.0%	-4.0%	-3.9%	-3.8%	-3.6%
	Difference NII compared to 2008**		-0.7	-2.1	-3.5	-3.8	-4.1	-4.2	-4.4	-4.1
	as % of GDP		-0.1%	-0.3%	-0.5%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Austria (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	229	242	249	254	260	262	265	269	275
	Interest-bearing liabilities*	150	154	158	163	166	166	168	173	180
ECB Calculations**	Interest income	10.1	7.2	5.3	5.5	4.5	3.7	3.7	3.2	2.8
	Interest expenses	5.2	3.0	2.2	2.2	1.8	1.5	1.6	1.4	1.3
	Net interest income (NII)	4.9	4.2	3.2	3.3	2.7	2.2	2.1	1.8	1.5
	NII as % of GDP	1.7%	1.5%	1.1%	1.1%	0.9%	0.7%	0.6%	0.5%	0.4%
	Difference NII compared to 2008**		-0.7	-2.4	-4.0	-6.2	-8.9	-11.6	-14.7	-18.0
	as % of GDP		-0.2%	-0.8%	-1.3%	-1.9%	-2.7%	-3.5%	-4.3%	-5.2%
actual development	Interest income	7.8	5.8	4.1	4.4	4.3	3.3	2.8	2.3	1.8
	Interest expenses	7.2	5.2	4.3	4.6	4.3	3.9	4.0	3.8	3.7
	Net interest income (NII)	0.7	0.5	-0.3	-0.2	0.0	-0.6	-1.2	-1.6	-1.9
	NZE in % des BIP	0.2%	0.2%	-0.1%	-0.1%	0.0%	-0.2%	-0.4%	-0.5%	-0.5%
	Difference NII compared to 2008**		-0.1	-1.0	-1.9	-2.6	-3.8	-5.6	-7.9	-10.4
	as % of GDP		0.0%	-0.4%	-0.6%	-0.8%	-1.2%	-1.7%	-2.3%	-3.0%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Portugal (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	160	168	173	184	191	192	191	192	194
	Interest-bearing liabilities*	156	160	162	161	156	149	144	140	136
ECB Calculations**	Interest income	8.8	5.5	4.1	5.3	6.1	5.3	4.9	4.2	3.4
	Interest expenses	7.3	3.8	3.9	4.8	5.2	4.3	3.6	2.6	2.1
	Net interest income (NII)	1.5	1.7	0.2	0.6	0.8	1.0	1.4	1.6	1.3
	NII as % of GDP	0.8%	1.0%	0.1%	0.3%	0.5%	0.6%	0.8%	0.9%	0.7%
	Difference NII compared to 2008**		0.2	-1.1	-2.1	-2.7	-3.2	-3.4	-3.3	-3.4
	as % of GDP		0.1%	-0.6%	-1.2%	-1.6%	-1.9%	-1.9%	-1.8%	-1.9%
actual development	Interest income	6.6	5.4	3.7	6.2	7.7	6.6	6.2	5.1	3.8
	Interest expenses	9.6	6.6	6.0	7.0	6.5	4.9	4.6	3.9	3.5
	Net interest income (NII)	-3.0	-1.3	-2.3	-0.7	1.2	1.8	1.7	1.2	0.3
	NZE in % des BIP	-1.7%	-0.7%	-1.3%	-0.4%	0.7%	1.0%	1.0%	0.7%	0.2%
	Difference NII compared to 2008**		1.8	2.5	4.8	9.0	13.8	18.5	22.7	26.1
	as % of GDP		1.0%	1.4%	2.7%	5.4%	8.1%	10.7%	12.7%	14.1%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

Spain (all figures in EUR bn)

		2008	2009	2010	2011	2012	2013	2014	2015	2016
	Interest-bearing assets*	709	752	782	816	830	829	819	810	821
	Interest-bearing liabilities*	895	910	904	889	857	814	772	742	723
ECB Calculations**	Interest income	34.5	18.6	16.0	19.4	21.6	17.8	15.1	10.4	6.9
	Interest expenses	40.8	19.1	16.8	21.6	22.7	18.3	16.0	9.4	7.5
	Net interest income (NII)	-6.3	-0.6	-0.8	-2.2	-1.0	-0.5	-0.8	1.0	-0.6
	NII as % of GDP	-0.6%	-0.1%	-0.1%	-0.2%	-0.1%	-0.1%	-0.1%	0.1%	-0.1%
	Difference NII compared to 2008**		5.7	11.2	15.2	20.4	26.2	31.6	38.9	44.5
	as % of GDP		0.5%	1.0%	1.4%	2.0%	2.6%	3.0%	3.6%	4.0%
actual development	Interest income	29.1	23.3	19.1	22.9	23.8	20.7	14.8	10.8	6.5
	Interest expenses	54.6	44.7	31.6	31.5	30.7	24.8	22.0	19.0	17.2
	Net interest income (NII)	-25.5	-21.3	-12.5	-8.5	-7.0	-4.1	-7.1	-8.2	-10.7
	NZE in % des BIP	-2.3%	-2.0%	-1.2%	-0.8%	-0.7%	-0.4%	-0.7%	-0.8%	-1.0%
	Difference NII compared to 2008**		4.2	17.1	34.1	52.6	74.1	92.4	109.7	124.5
	as % of GDP		0.4%	1.6%	3.2%	5.1%	7.2%	8.9%	10.2%	11.2%
*Annual average **cumulated ***Interest after FISIM, excluding changes in stocks										

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