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Returns on private assets in selected EMU
countries

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1. SUMMARY

Household financial assets have increased in all of the countries included in our analysis since 2003. With a handful of exceptions (the Netherlands, Germany), the pace of growth tapered off considerably in the years characterized by the extreme monetary policy (2012 – 2016) in comparison to the pre-crisis years (2003 – 2007). Financial assets showed virtually no growth whatsoever during the crisis (2008 – 2011) and actually contracted in Italy and Spain.

At the same time, the growth drivers – financial asset formation and value gains – have shifted over time. Value gains have been subject to considerable swings – as was to be expected. During the years marred by the crisis, for example, they were negative on average. From 2012 onwards, however, they were almost 50% higher than in the pre-crisis years.

Financial asset formation has consistently made a positive contribution to asset growth – albeit one that is clearly on the wane. Compared with the pre-crisis years, per capita savings have dropped by more than 40% on average over the last five years. The countries at the center of the euro crisis - Italy, Spain and Portugal - have seen savings slump by more than 80%. Germany is the only exception, with savers there setting around one-third more aside.

Financial asset formation can result from either investment income or income from employment. In the period covered by our analysis, income from investments proved to be relatively stable across the board. Given the backdrop of falling interest rates, this is due to a marked (two-thirds) increase in the volume of financial assets.

The contribution that income from employment has made to financial asset formation, on the other hand, has changed considerably. In the pre-crisis years, all households (with the exception of those in the Netherlands) were also using income from employment to save, setting aside an average of just under EUR 400 per capita per year. In the years since 2012, only households in Austria (EUR 230) and Germany (EUR 770) have continued to do so; elsewhere, on the other hand, part of income from investments, namely an average of almost EUR 800 per capita per year, has also been used for consumption.

Considerable savings efforts using income from employment can compensate for low asset yields, i.e. they make up for the lack of income from investments and changes in value. This is backed up by the data: in the years of ultra-loose monetary policy, Germany and Austria reported the lowest asset yields, namely 3.4% and 2.6% respectively. The only other country left with similarly poor returns is Portugal (3.2%), due to the negative performance on the domestic stock market. In Germany and Austria, on the other hand, the poor returns can be attributed to the portfolio mix, which features an (excessively) large proportion of bank deposits. Finland, on the other hand, is the country with the highest asset yield – and also the country with the highest proportion of equities in the asset mix.

Compared with the pre-crisis years, the average asset yield in the countries analyzed has dipped only slightly, thanks to higher value gains. If we take inflation into account, it has actually been half a percentage point higher over the last five years, at 3.7%.

Conclusion: Financial assets can grow even in a low interest rate environment. There are two ways in which this can happen: either savers generate high returns by focusing their investment behavior more on the capital markets (the Finnish-Dutch approach), or they inject more of their income from employment into savings (the German-Austrian strategy).

2. INTRODUCTION: CHALLENGING TIMES FOR SAVERS

So how have European savers fared over the last few years in a low interest rate environment? This is the question that this study intends to answer by splitting asset development into its individual components, comparing their different weightings and using this information to approximate the return on the financial assets of households in the EMU countries.

Even more so than in "normal" times, the "right" savings decisions are crucial when faced with the conditions created by an extreme monetary policy. While on the one hand, the real return on bank deposits slid, sometimes considerably, into the red in the period starting at the end of 2010¹, the performance of other assets, such as equities, in particular, was boosted by the low interest rates. This is why, according to the Bundesbank, the real total return on the financial assets of German households was actually also clearly in positive territory in the period between 2008 and early 2017 (1.7 percent).²

This means that, at first glance, German savers appear to have coped relatively well with the period of low interest rates. A comparison with the other EMU countries, however, reveals that most other savers – who were confronted with the same overall monetary policy framework – fared much better.

Our analysis looks at three different periods: the pre-crisis years from 2003 to 2007, the years marked by the outbreak of the global financial and economic crisis leading up to 2011, and the period from 2012 to 2016, which ushered in a new chapter in monetary policy history with Mario Draghi's famous "whatever it takes" speech on saving the euro: since then, the ECB has clearly been acting not "only" as a monetary policymaker tasked with stabilizing prices, but has been pursuing a policy involving an extended toolbox (OMT, PSPP, NDR, etc.) that is also designed to ensure the survival of the euro. This means that the impact of monetary policy on interest rates and the financial markets has become even more pronounced, distorting the bond markets, in particular, but also the stock markets even further. In other words: the environment has become even more challenging for savers in the euro area – and the differences between the individual countries have also become much more pronounced as a result.

¹ Cf. also Deutsche Bundesbank (2017): Reale Portfoliorenditen privater Haushalte in Deutschland, monthly report for August, pp. 33 -35.

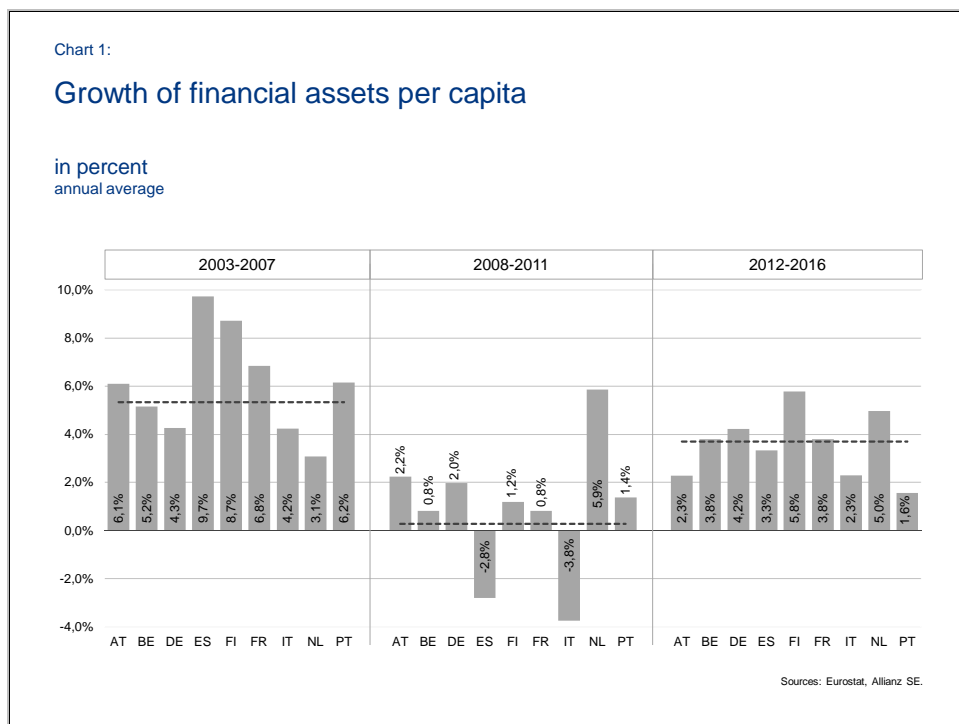
² Ibid.

3. SAVINGS BEHAVIOR AND ASSET YIELDS IN SELECTED EMU COUNTRIES

Significant differences in total assets and asset growth

A look at the volume of private household financial assets³ exposes clear differences from country to country. At the end of 2016, for example, average per capita financial assets in the Netherlands came to EUR 136,650, more than four times the amount of private savings in Portugal (EUR 32,340). The wealth gap actually widened slightly during the observation period: the same factor came to only 3.5 back in 2003. With an average of EUR 67,490, German households are in the upper middle of the rankings. The clear wealth lead enjoyed by households in the Netherlands can be traced back primarily to the strong role that company retirement provision enjoys there.

The financial assets of households have increased in all of the countries included in our analysis since 2003. All in all, the volume of assets had risen by two-thirds to a total of EUR 20.6 trillion by the end of 2016. The pace of growth, however, slowed considerably in the years dominated by the extreme monetary policy (2012 – 2016) compared with the pre-crisis years (2003 – 2007): the average annual rate of growth in per capita assets in the countries analyzed slipped back from 5.3 percent to 3.7 percent. The two exceptions to this rule are Germany and the Netherlands, where average growth remained stable (Germany) or even picked up speed (the Netherlands). Virtually no growth was reported during the crisis years (2008 – 2011). Average growth in the countries analyzed came to only 0.3 percent, with Italy and Spain actually reporting asset losses. Finland, on the other hand, takes the title of growth champion: the financial assets of Finnish households showed above-average growth across all three periods, outstripping the pace of growth witnessed in the other countries by around 2 percentage points on average.



³ All of the figures cited for financial assets below relate to gross financial assets, excluding other equity interests.

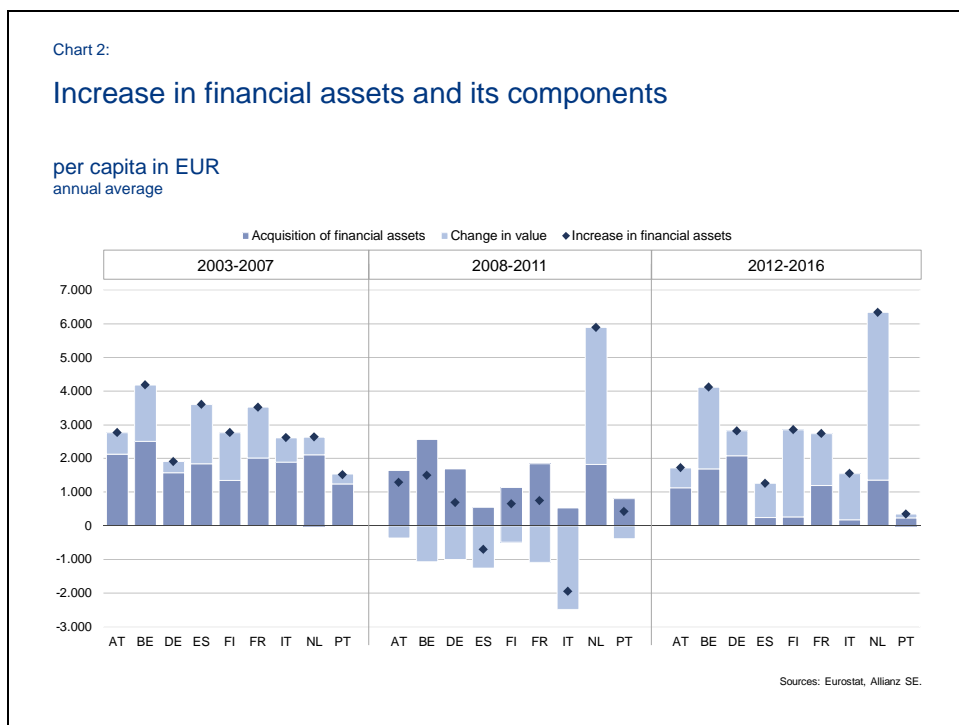
Increase in value gains, less of an effort made to save

Asset growth over a particular period comprises financial asset formation, i.e. total inflows and outflows of "new investment funds", and the changes in the value of the assets, i.e. value gains and losses that depend on capital market developments.

Figure 2 illustrates the average share attributable to these two components in relation to the total increase/drop in assets during the periods described above in per capita terms. Whereas financial asset formation made a positive contribution to asset growth on the whole during all three periods, the valuation-related changes in the asset portfolio were negative on average in the years between 2008 and 2011 – which comes as little surprise given the shockwaves that the outbreak of the financial crisis sent through the capital markets. The Netherlands is the only exception to the rule: thanks to falling interest rates, the value of bonds in the "insurance policies and pensions" asset class increased significantly.

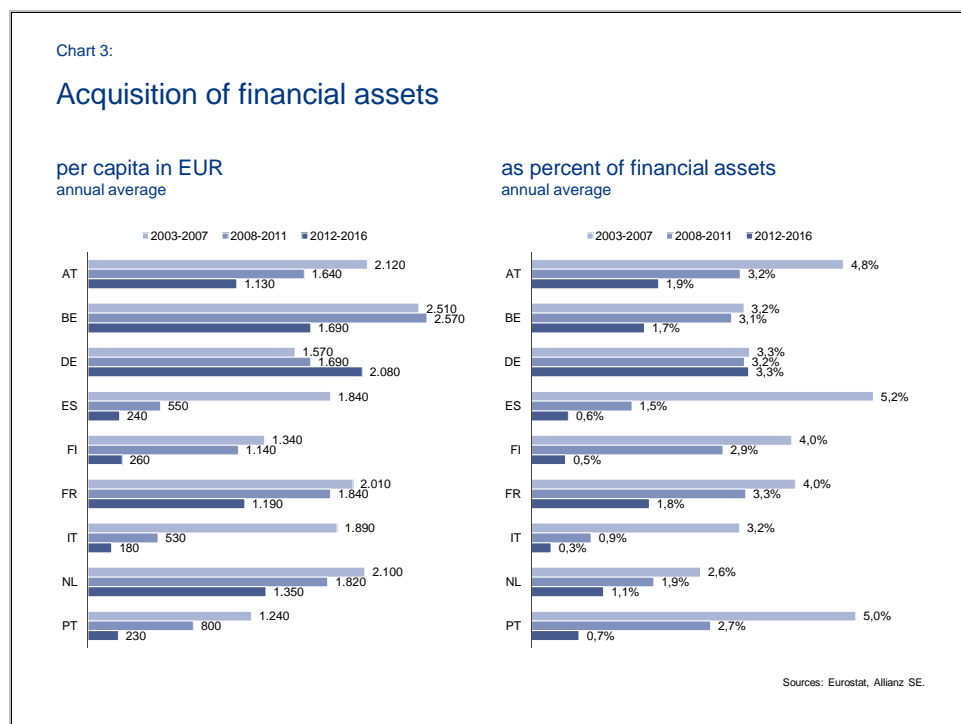
What is striking is that the per capita value gains in the period from 2012 to 2016 were higher than in the pre-crisis years in almost all of the countries we have looked at: back then, the average for the countries analyzed came to EUR 950 a year, whereas over the last five years, value gains have averaged EUR 1,380 a year. Even leaving the Netherlands out of the equation as an exceptional case, average value gains since 2012 have been EUR 200 higher than in the pre-crisis years (EUR 980). This is due not least to the expansive monetary policy pursued by the ECB; shareholders, in particular, have been reaping the benefits of sizeable share price gains.

The proportion of asset growth that is attributable to changes in value does, however, vary, with the lowest values witnessed in Germany and Austria: here, value gains have been responsible for only just under 27 percent/around 30 percent of asset growth since 2012 respectively. In the other countries, the figure comes to a good 70 percent on average.



Unlike the changes in value, which were subject to constant ups and downs throughout all three periods, the development in financial asset formation is pointing in only one direction: downwards (see figure 3). In the pre-crisis years, households in the countries in our analysis were still putting aside an average of EUR 1,820 per capita per year. From 2008 to 2011, the annual savings contribution dropped back to EUR 1,320 per capita on average, before slipping further to EUR 1,060 a year over the last five years. This trend can be observed in all of the countries analyzed, with the exception of the "savings world champions", Germany: here, households actually stepped up their savings efforts from EUR 1,570 per capita per year in the years leading up to the crisis to EUR 2,080 in the period from 2012 to 2016. The other countries vary in the extent to which households have cut back on their savings efforts. The most dramatic drop in the volume saved has been witnessed among Italian, Spanish and Portuguese households: over the last five years, per capita financial asset formation in these countries has been between 80 percent and 90 percent lower than in the pre-crisis years. This is due to the severe economic crisis, which forced households not just to cut back on the amount they were saving, but in some cases even to sell financial investments. Italian households, for example, have sold securities, mainly bonds, worth EUR 500 billion over the last five years.

The downward trend in savings volumes is equally apparent in relation to the asset base. Whereas in Germany, financial asset formation remained stable, accounting for 3.3 percent of total savings, this figure dropped considerably in the other countries. As in per capita terms, the drop was the most pronounced in the countries at the center of the euro crisis.



Using income from employment or income from investments to save?

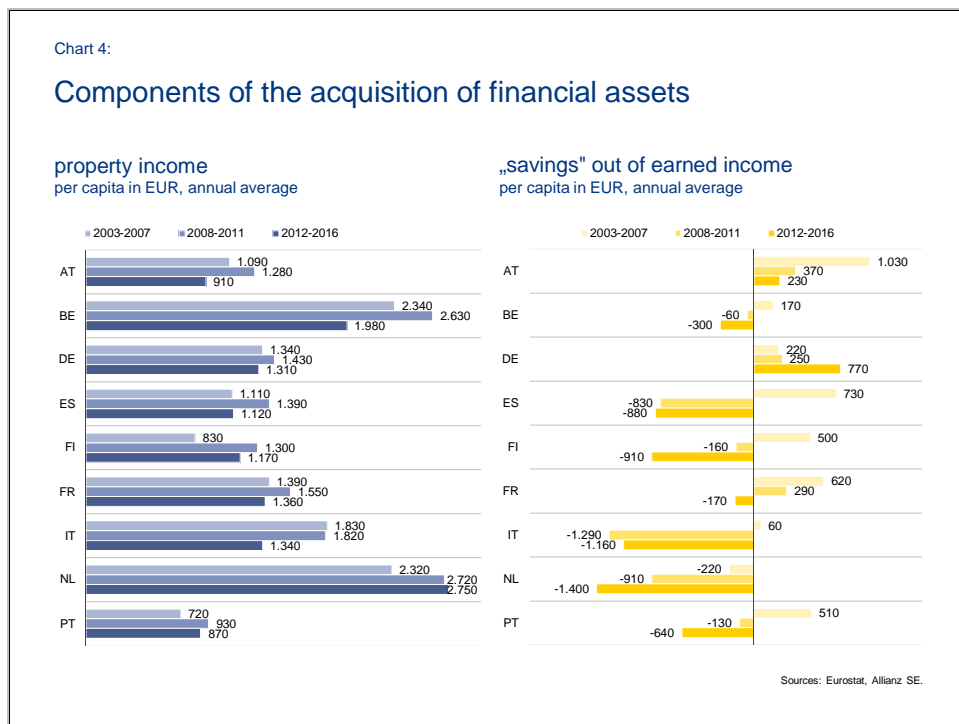
Households can use both income from investments, i.e. income from interest and dividend payments, and/or parts of their income from employment for the purposes of financial asset formation. In our analysis, we have assumed that households follow a process of implicit "earmarking": in order to reach their savings objectives, households first of all use their income from investments; it is only when this has been used up, but the savings objective has not yet been reached, that part of their income from employment is also saved; this means that savings from income from employment can be calculated as a residual parameter (=increase in financial assets less change in value and income from investments). This also means that, as the income from investments rises, households tend to put less of their income from employment aside.⁴

Income from investments has remained relatively stable over time (see figure 4) – although the asset base increased by two-thirds between 2003 and 2016. There has been no uniform upward or downward trend that applies across the board: compared with the pre-crisis level, income from investments has fallen (slightly) in five out of the nine countries analyzed over the last five years, while it has increased in the other four. Average per capita income from investments came to EUR 1,470 in the pre-crisis years, EUR 1,620 in the period from 2008 to 2011 and EUR 1,370 between 2012 and 2016.

Marked differences can, however, be identified as regards the income from employment used for the purpose of saving. With the exception of the Netherlands, households in all countries used not only their income from investments, but also part of their income from employment, to save in the period from 2003 to 2007, namely an average of EUR 390 per capita. Over the four years that followed, only households in France, Germany and Austria were still also using income from employment to achieve their savings objectives. Over the last five years, funds set aside using income from employment have been contributing to asset accumulation in only Germany and Austria.

In all of the other countries, on the other hand, savings have been financed exclusively by reinvesting income from investments – which has also been used to top up income from employment. So whereas money is working for savers in other countries, savers in Germany and Austria are working hard to protect their assets from the low interest rates: since 2012, they have been pumping income from employment totaling around EUR 1,100 and almost EUR 4,000 respectively into asset accumulation as opposed to consumption in per capita terms - a trend that remains intact. Households in the Netherlands, on the other hand, invested a per capita total of around EUR 7,000 of their income from investments in consumption during this period; the average figure for all of the other countries comes to just under EUR 4,000.

⁴ In some cases, however, e.g. when capital gains from insurance policies are involved, the income referred to is notional income, i.e. it was never actually received by the households, but is reported as an increase in assets right away. In other words: the increase in assets is mentally separated into two steps in the national accounts that basically look like this from the perspective of the households: inflow of income from investments and outflow (amounts saved) in the same amount.



How high is the total return achieved?

There is also another way of describing the relationship between value increases, income from investments and savings based on income from employment: the higher the asset yield (=value increases and income from investments expressed as a percentage of total assets), the lower the "real" savings efforts, i.e. using income from employment, can be. The fact that these very savings efforts have been particularly high in Germany and Austria over the last few years is an indication of the low return on assets.

BOX: HOW IS THE TOTAL RETURN ON THE ASSET PORTFOLIO CALCULATED?

The financial accounts published by the European statistics authority, Eurostat, which form part of the national accounts, provide an overview of the financial assets of households. They provide information not only on the amount and structure of the asset base by asset class, but also on annual fund inflows and outflows.

The (nominal) total return on an investment is calculated based on the value gains, the amount of which can be derived directly from the financial accounts (level at the end of a period less the level at the start of the period and financial asset formation during this period) and current income, e.g. interest and dividends. These constitute household income, which is also recorded in the national accounts.

In particular, the calculation of the total return used data on the income from investments, i.e. interest and other capital gains. The latter comprise income from insurance policies, receivables from pension systems and from investment fund units. These are allocated to the corresponding items in the asset balance sheet. A weighted annual average interest rate⁵ was calculated for investment income from

⁵ Allianz SE, Economic Research (2015): Low interest rates, incomes and assets: the winners and the losers, Working Paper 190.

overnight money deposits, savings and term deposits with banks, while a return of zero percent was applied to cash. A residual parameter was calculated for income from investments in bonds and other receivables, i.e. the total investment income from interest⁶ (taken from the national accounts) less the income on bank products resulting from the weighted annual average interest rate. Since some countries do not make any distinction between profit distributions and withdrawals in their national accounts, the income on assets held in equities is calculated based on the domestic dividend yield in each case⁷.

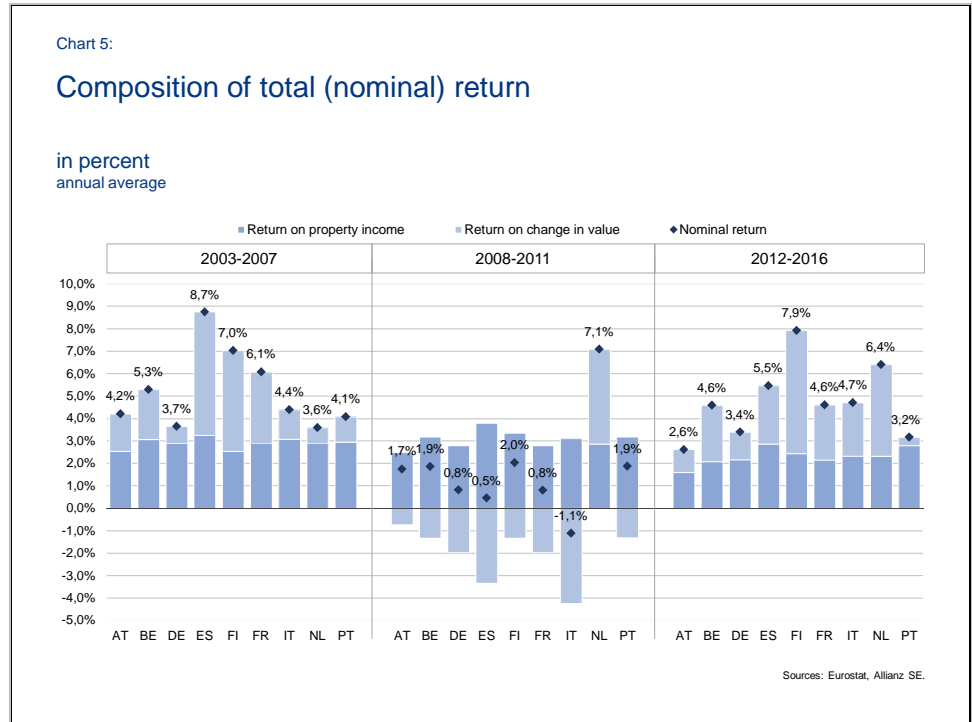
An average annual portfolio was created for all items in the asset balance sheet (bank deposits, bonds, equities, investment fund units, receivables from provisions relating to insurance companies and pension systems, and other receivables) and the average return generated in the current year was calculated in each case. This study has left assets and income from other equity interests out of the equation.

The nominal total return for a given year, less the average annual rate of change in consumer prices, produces the real total return.

Figure 5 shows the total return on financial assets, as well as the extent to which income from investments and changes in value influenced this return over time. It becomes apparent that the returns from income from investments over the last five years have been lower than in the pre-crisis years in all of the countries analyzed; the EMU average slipped back from 2.9 percent to 2.3 percent. By contrast, the returns resulting from changes in value came to 2.5 percent on average between 2012 and 2016, which is actually higher than in the pre-crisis years, albeit only by 0.2 percentage points. First and foremost, however, the increases in value are much more volatile; between 2008 and 2011, they were in negative territory in all of the countries included in the analysis - with the exception of the Netherlands: after all, participation in value changes does not just mean an opportunity to generate a profit, but also implies a risk of suffering a loss. This means that the level of the total return depends first and foremost on whether or not the portfolio contains assets that offer the potential for (substantial) value gains (or losses), and if so, how many.

⁶ In the case of interest rates, we have only included the interest actually received.

⁷ MSCI Austria DY, MSCI Belgium DY, MSCI Germany DY, MSCI Finland DY, MSCI France DY, MSCI Italy DY, AEX Index Datastream DY, Euro Stoxx 50 DY (for Portugal), S&P 500 Composite Datastream DY; Source: Thomson Reuters.



Looking at the last five years characterized by the extreme monetary policy, the presumption that returns on assets have been particularly low in Germany and Austria - and also in Portugal - is confirmed. But whereas Portugal's scenario is due primarily to poor stock market performance - the Portuguese leading index is the only one to have reported losses over the last five years while the DAX, on the other hand, has almost doubled - Germany and Austria have their portfolio mix to blame for their below-average asset yields. Households in these countries are focusing on conservative, low-risk investment products: despite zero interest rates and real value losses, around two-fifths of private financial assets in Germany were held in bank deposits in 2016, with bank deposits accounting for as much as half of private financial assets in Austria (see figure 6). Although loyalty to bank deposits is also very pronounced in Spain, where they account for just under 43 percent of the asset portfolio, the Spanish return is a good two percentage points higher than in Germany. This is because Spanish households are also more open to investments in equities: the Spaniards held an average of around 22 percent of their savings in the form of direct equity holdings, putting them well ahead of the average for the countries in our analysis (12.2 percent) together with households in Belgium (20.0 percent). In Austria and Germany, equities only account for 4.7 percent and 6.8 percent of financial assets respectively. Finnish households have the biggest risk appetite, investing more than one-third of their portfolio in shares - and have also generated what is by far the biggest return over the last five years.

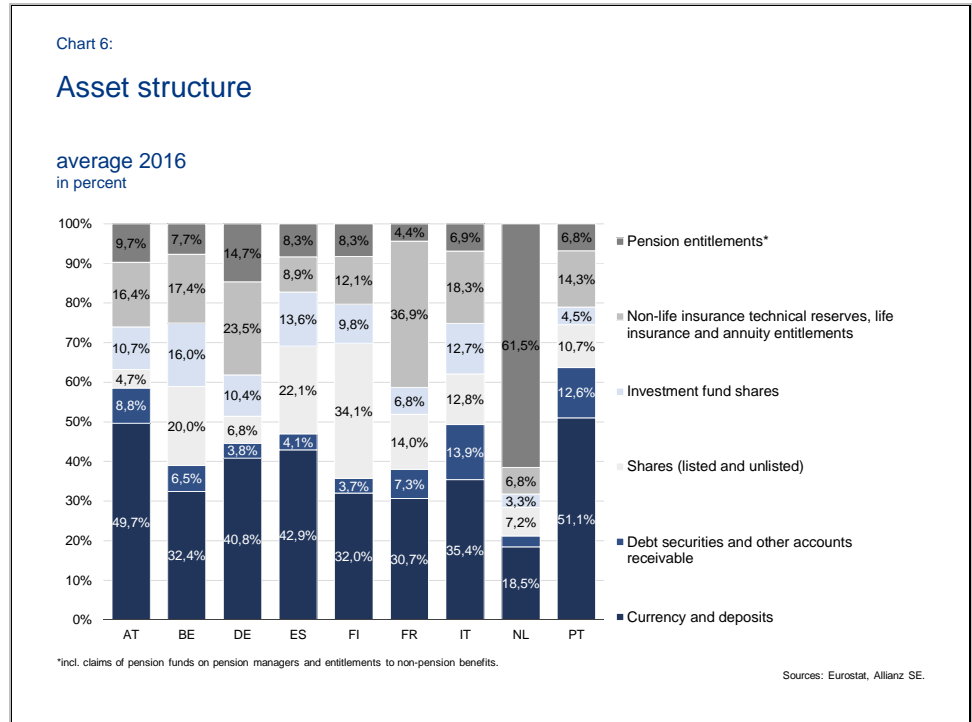
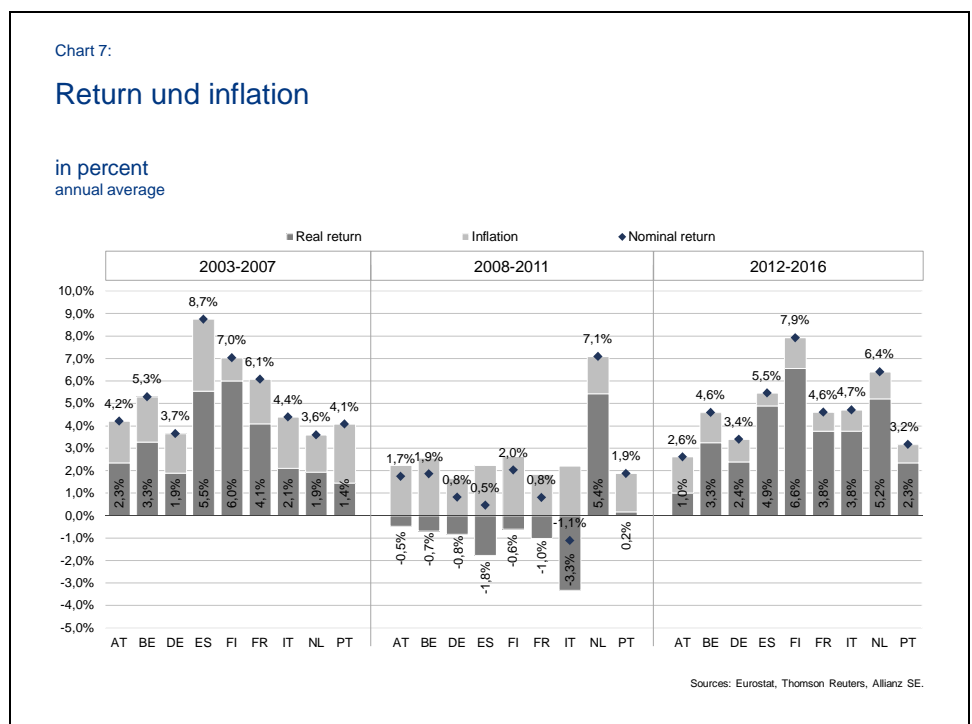


Figure 7 shows the impact that inflation-related losses have had on the nominal return. It shows that the deflationary trend, which has been the hot topic on everyone's lips, does not pose any threat to savers in the low interest rate environment that has been with us for years now. On the contrary: whereas average nominal returns for the countries analyzed came to 4.8 percent between 2012 and 2016, down slightly on the period from 2003 to 2007, real returns actually increased by half a percentage point to 3.7 percent on average thanks to falling inflation rates. In the years in between, almost all countries reported negative real returns; nominal returns, which were already on the meager side anyway due to the substantial value losses, were canceled out by the loss of purchasing power.



4. TABLE: OVERVIEW OF NOMINAL YIELDS BY ASSET CLASS

Average 2003 to 2007

	AT	BE	DE	ES	FI	FR	IT	NL	PT
Currency and deposits	2.2%	1.6%	2.1%	1.4%	1.2%	2.3%	0.9%	1.8%	1.6%
Debt securities and other accounts receivable	6.0%	4.2%	2.0%	12.0%	3.8%	-1.4%	5.5%	3.0%	2.3%
Shares (listed and unlisted)	14.9%	12.5%	14.5%	21.1%	13.4%	15.3%	10.6%	4.5%	15.4%
Investment fund shares	7.4%	3.8%	4.6%	n/a	10.4%	9.1%	1.5%	18.1%	n/a
Non-life insurance technical reserves, life insurance and annuity entitlements	5.7%	5.1%	4.0%	n/a	6.9%	n/a	n/a	6.9%	n/a
Pension entitlements	4.9%	5.4%	2.5%	n/a	5.1%	n/a	n/a	2.3%	n/a
Sum of investment fund shares, non-life insurance technical reserves, life insurance and annuity entitlements, pension entitlements				6.8%					5.2%
Sum of non-life insurance technical reserves, life insurance and annuity entitlements, pension entitlements						6.0%	2.6%		
<i>Total nominal return</i>	4.2%	5.3%	3.7%	8.7%	7.0%	6.1%	4.4%	3.6%	4.1%
<i>Total real return</i>	2.3%	3.3%	1.9%	5.5%	6.0%	4.1%	2.1%	1.9%	1.4%

Average 2008 to 2011

	AT	BE	DE	ES	FI	FR	IT	NL	PT
Currency and deposits	2.0%	1.5%	1.8%	2.0%	1.5%	2.0%	1.0%	2.4%	2.0%
Debt securities and other accounts receivable	4.4%	8.0%	-3.8%	9.9%	1.9%	0.6%	4.7%	-0.9%	7.8%
Shares (listed and unlisted)	-2.6%	-0.6%	-12.9%	-5.2%	3.9%	-8.9%	-22.9%	3.4%	-3.8%
Investment fund shares	-2.5%	0.1%	1.2%	n/a	0.7%	3.6%	-1.4%	0.9%	n/a
Non-life insurance technical reserves, life insurance and annuity entitlements	3.1%	3.1%	4.1%	n/a	1.1%	n/a	n/a	2.1%	n/a
Pension entitlements	1.6%	3.2%	2.3%	n/a	1.9%	n/a	n/a	12.6%	n/a
Sum of investment fund shares, non-life insurance technical reserves, life insurance and annuity entitlements, pension entitlements				2.2%					0.9%
Sum of non-life insurance technical reserves, life insurance and annuity entitlements, pension entitlements						3.3%	3.1%		
<i>Total nominal return</i>	1.7%	1.9%	0.8%	0.5%	2.0%	0.8%	-1.1%	7.1%	1.9%
<i>Total real return</i>	-0.5%	-0.7%	-0.8%	-1.8%	-0.6%	-1.0%	-3.3%	5.4%	0.2%

Average 2012 to 2016

	AT	BE	DE	ES	FI	FR	IT	NL	PT
Currency and deposits	0.8%	0.5%	0.7%	1.0%	0.5%	1.4%	0.9%	1.5%	1.7%
Debt securities and other accounts receivable	3.0%	4.2%	11.1%	16.1%	4.6%	-0.4%	6.8%	2.0%	4.8%
Shares (listed and unlisted)	7.6%	7.5%	12.3%	10.0%	15.3%	12.3%	15.4%	5.9%	7.5%
Investment fund shares	4.0%	9.5%	6.9%	n/a	9.8%	3.6%	4.9%	6.9%	n/a
Non-life insurance technical reserves, life insurance and annuity entitlements	3.6%	5.7%	3.7%	n/a	13.7%	n/a	n/a	2.2%	n/a
Pension entitlements	4.7%	4.2%	2.6%	n/a	3.7%	n/a	n/a	8.9%	n/a
Sum of investment fund shares, non-life insurance technical reserves, life insurance and annuity entitlements, pension entitlements				7.5%					3.3%
Sum of non-life insurance technical reserves, life insurance and annuity entitlements, pension entitlements						5.8%	3.9%		
<i>Total nominal return</i>	2.6%	4.6%	3.4%	5.5%	7.9%	4.6%	4.7%	6.4%	3.2%
<i>Total real return</i>	1.0%	3.3%	2.4%	4.9%	6.6%	3.8%	3.8%	5.2%	2.3%

5. LITERATURE

Allianz SE, Economic Research (2015): Low interest rates, incomes and assets: the winners and the losers, Working Paper 190, August 2015.

Deutsche Bundesbank (2017): Reale Portfoliorenditen privater Haushalte in Deutschland, monthly report for August 2017.

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The Allianz Group is one of the world's leading insurers and asset managers with more than 86 million retail and corporate customers. Allianz customers benefit from a broad range of personal and corporate insurance services, ranging from property, life and health insurance to assistance services to credit insurance and global business insurance. Allianz is one of the world's largest investors, managing over 650 billion euros on behalf of its insurance customers while our asset managers Allianz Global Investors and PIMCO manage an additional 1.3 trillion euros of third-party assets. Thanks to our systematic integration of ecological and social criteria in our business processes and investment decisions, we hold a leading position in the Dow Jones Sustainability Index. In 2016, over 140,000 employees in more than 70 countries achieved total revenue of 122 billion euros and an operating profit of 11 billion euros for the group.

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