

# Allianz Global Wealth Report 2017

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## Preface

It's ten years since the eruption of the major financial crisis that almost caused the global financial system to collapse. What lessons have savers learned from this profound event? The answer is surprising and, at the same time, sobering.

Despite low interest rates, private investors in industrialized countries have, on average, invested around EUR 1 trillion of fresh savings in bank accounts each year since the outbreak of the financial crisis, more than in any other financial product. Last year a record sum of almost EUR 1.4 trillion was achieved. That means they held about EUR 33 trillion of their financial assets in the form of bank deposits at the end of 2016. Such investment behavior has paradoxical results. From this angle, banks are turning out to be the crisis winners, while savers are suffering severe losses due to zero interest rates. In 2016 alone, they are thought to have lost around EUR 300 billion owing to inflation, even though inflation was low.

This was not the intention of the zero interest rate policy pursued since the financial crisis. The abolition of interest on risk-free investments was actually intended to encourage savers to favor higher-risk investments such as shares or long-term investment products, which would help support the economy. What happened was the opposite. However, we won't achieve anything simply by complaining about these cautious, liquidity-oriented savings habits. That's not what we aspire to as one of the world's leading financial service providers. Instead, these figures are an incentive for us to develop better and simpler products for more savers, so that we can finally overcome this "investment lethargy". Digitalization gives us a powerful tool that can make it easier to access modern savings products. Because one thing is clear. Given the challenges that lie ahead – climate change and demographic change spring to mind – long-term, yield-oriented investments are needed in order to protect our prosperity for the generations to come.

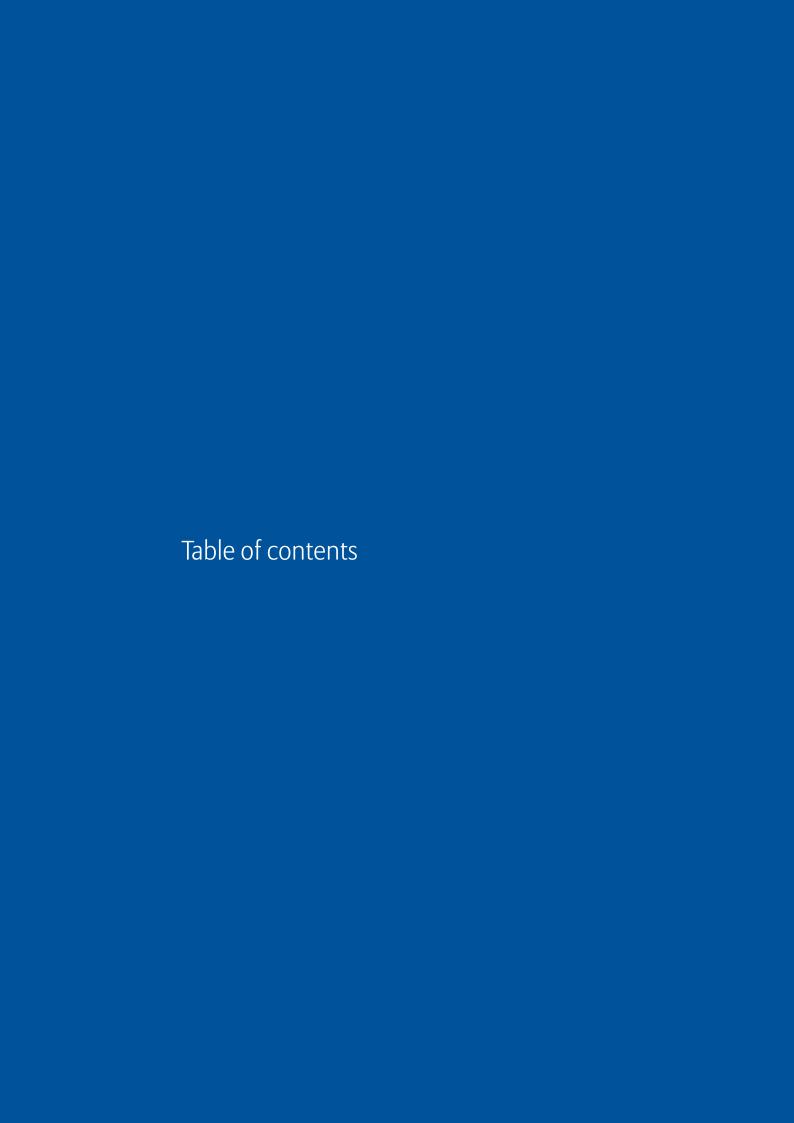
The situation with regard to savings is not much better in emerging markets. Private assets have achieved very high growth rates in some cases, even after the financial crisis, with more and more people sharing in global prosperity and thus becoming part of the new global middle class. However, it is estimated that less than 20% of financial assets are invested in long-term savings products. Often investors simply lack access to investment opportunities beyond a basic bank account. There is widespread need for action. Digitalization could be the key to success in these countries as well.

Our comprehensive analysis of global household assets, which we have continued with this eighth edition of the "Allianz Global Wealth Report", therefore offers more than just an abundance of interesting and surprising facts and figures. For me, this report is principally an incentive to spur us on in future to fulfill our responsibility to customers and society even better as a leading financial service provider.

Ohin Bell

Oliver Bäte

Chairman of the Board of Management of Allianz SE



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Summary

#### Recovery in turbulent times

The political turbulence during 2016 had little impact on the development of private financial assets. After relatively weak growth in 2015 (+4.7%), growth picked up again noticeably last year (+7.1%), with global gross financial assets climbing to a new record high of EUR 169.2 trillion. Growth accelerated in all three asset classes (bank deposits, securities and insurance policies and pension funds), although securities fared the best with global growth of 8.7%, thanks to the rally on the stock markets at the end of the year.

#### Bank deposits defy zero interest rates

Bank deposits remain popular despite zero interest rates, with two-thirds of new savings going into banks in 2016. By contrast, households sold more securities than they purchased. However, there were significant differences in savings habits between regions, and these differences are reflected in the functional drivers of asset growth. Around three-quarters of asset growth in North America is attributable to changes in the value of portfolios, compared with about half of growth in Europe and only around a quarter in Germany. While American households get their money to work for them, the reverse is true in Europe, particularly in Germany, where investors have to work hard to achieve asset growth through their own savings.

#### Asia is growing at by far the fastest rate

Asia (excluding Japan) was once again the uncontested leader in 2016, with growth of 15%. The dominance of this region becomes even clearer in a long-term comparison, particularly when inflation is also taken into account. Gross per capita financial assets in Asia (excluding Japan) grew by almost 11%

per year in real terms in the last decade. The other two emerging regions, Latin America and Eastern Europe, achieved growth of only about 5%, which was still more than twice as fast as the growth rates in North America (+2.1% real growth since 2006) and Western Europe (+1.4%).

#### China dominates

The slow catch-up process in emerging countries continued in 2016. The three regions of Latin America, Eastern Europe and Asia (excluding Japan) accounted for just under 23% of global gross financial assets. This share has more than doubled in the last ten years. Emerging markets have an even bigger weighting when it comes to asset growth, with almost 40% of last year's growth attributable to this group of countries. However, this is largely due to the development in China, which alone accounted for 30% of global growth in 2016.

#### Debt is growing much faster again

Global household liabilities increased by 5.5% in 2016, the highest rate of growth since 2007. That means that debt also rose faster than nominal economic output for the first time since 2009, and the global debt ratio increased by almost 1 percentage point to 64.6%. Development varied widely between individual regions. Growth accelerated slightly – starting from a moderate level – in Western and Eastern Europe and in North America. Latin America experienced a further decline in growth. In Asia (excluding Japan), on the other hand, debt growth rose sharply by a further four percentage points to just under 17%. That means that this region accounts for almost one-fifth of global private liabilities of just under EUR 41 trillion, compared with less than 7% ten years ago.

#### Eastern Europe comes last

If debt is subtracted from gross financial assets, that leaves net financial assets, which reached a new global record high of EUR 128.5 trillion at the close of 2016. That represents an increase of 7.6% year-on-year. Although this is slightly below average for the years since the crisis, it is well above the previous year's growth of 4.8%. Despite the catch-up process, discrepancies between household assets in richer regions and those in the world's poorer regions remain huge. North America remains the richest region in the world, with average per capita assets of EUR 168,130 after deduction of debt at the end of 2016. This figure is EUR 58,910 in Western Europe and only EUR 4,150 in Eastern Europe, the poorest region.

#### Global wealth distribution: Light ...

Development of global wealth distribution since the turn of the millennium has been defined by one phenomenon in particular: rampant growth in the global wealth middle class. The number of people belonging to this category has more than doubled during this period, from around 450 million in 2000 to over 1 billion today. The vast majority of those joining the middle class have come from the wealth lower class, with almost 600 million people making the leap since 2000.

#### ... and shade

Despite the emergence of a new global wealth middle class, the world as a whole is still a long way from a "fair" distribution of wealth. If we divide the population of the countries we have analyzed into global population deciles based on net per capita financial assets, it becomes clear that the richest 10% of the world together own 79% of net financial assets. Nevertheless, the

concentration of wealth was still as high as 91% in 2000. A comparison of median and average assets proves equally sobering. While median net per capita financial assets come to EUR 3,140, the average figure is EUR 25,510. In the top decile, average net per capita financial assets exceed the EUR 200,000 threshold. Median assets have, however, risen at an average rate of 15.2% a year since the turn of the millennium, significantly faster than average assets (+4.8%). The (relative) gap between the two figures is thus narrowing.

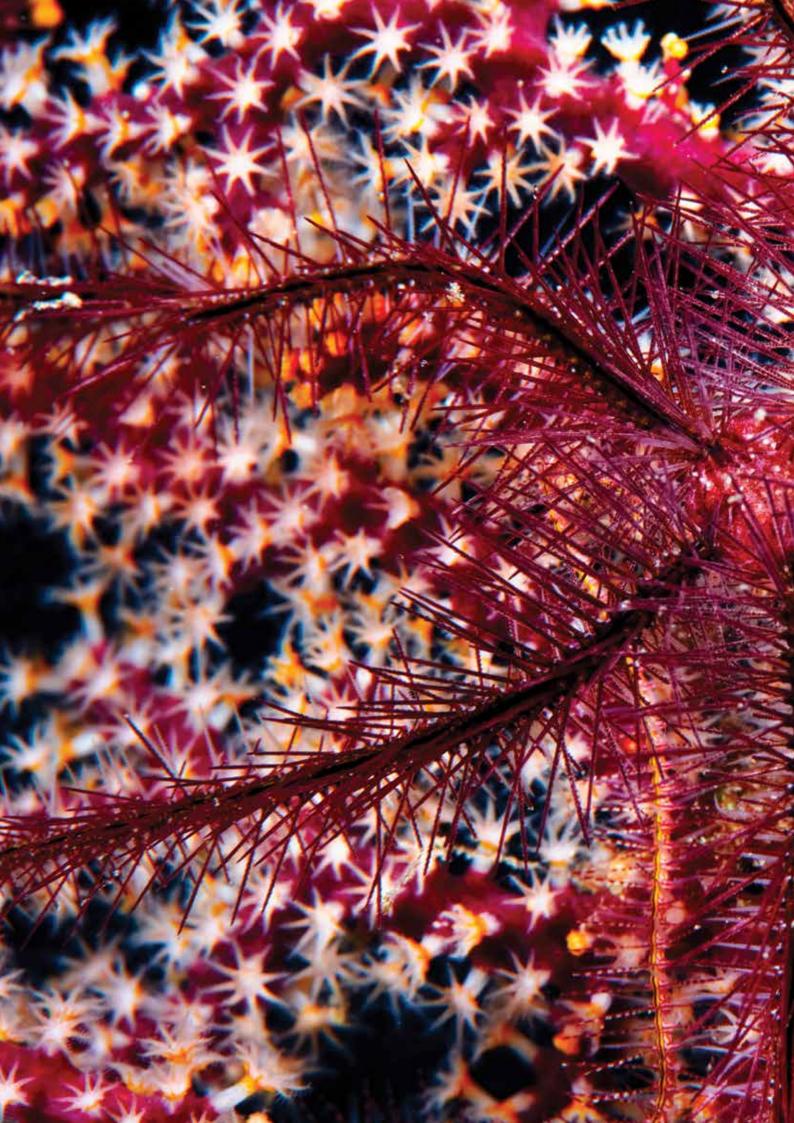
#### An elephant without its trunk

These global wealth deciles can be used to recreate the infamous "elephant chart", which maps income growth for each percentile of the global population, for asset growth. It is impossible not to notice the similarities to the original. In particular, households in the upper middle part of the global wealth distribution - those joining the middle class in emerging countries have benefited from asset growth in recent years. However, there is a striking difference at the top end of the distribution pyramid. Growth slows considerably in the 10th decile, the decile with the highest net per capita financial assets. The elephant has no trunk. In contrast to the income situation, assets are growing more slowly at the higher end of the scale than in the middle.

# National wealth distribution: A reversal of the trend following the financial crisis?

Wealth distribution in emerging countries has tended to improve in recent decades, while in industrialized nations it has tended to deteriorate. Exceptions prove the rule. However, these trends have weakened since the financial crisis. In industrialized countries in particular, the trend towards

less equal distribution has since slowed significantly, not least in the US, although the latter remains one of the countries with very unequal distribution. A direct comparison between median and average net per capita financial assets also highlights this. In the global rankings of the world's richest countries based on median values, the US would not come top – as it does in the rankings based on average values – but instead would be in 13th place.





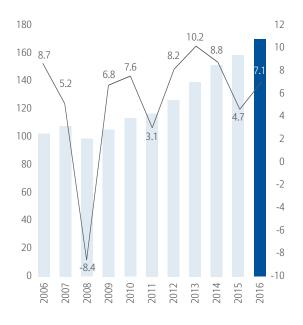
2016 was a politically turbulent year. In June a majority of British citizens voted to leave the EU, and in November the Americans elected Donald Trump as their new president. Both these outcomes were not only unexpected, but also have implications that go far beyond the sphere of politics and will continue to impact economics and markets for a long time.

However, this political paradigm shift seems to have had little effect on development of private financial assets. After relatively weak growth in 2015 (+4.7%), it picked up again last year and gross financial assets in the 53 countries we analyzed increased by 7.1% over the course of the year – which is more or less average for the period since the crisis. Global financial assets grew to EUR 169.2 trillion. This means that private savings were almost 270% of global economic output and 265% of global market capitalization. In theory, households could use their financial assets to settle the aggregate sovereign debt of these countries three times over.

In a long-term analysis (since 2006), global household savings have not only almost doubled by rising at an average annual growth rate of 5.5%, but have also grown slightly faster than global nominal economic output (+4.9% in the last decade). In per capita terms, however, long-term growth rates for each fell by almost one percentage point, to 4.6% and 4.0% respectively. After taking into account the inflation rate (global average of 2.5%), average annual per capita asset growth was 2.2% in real terms. Gross per capita financial assets averaged EUR 33,560 at global level at the end of 2016, with average nominal economic output of EUR 12,490 per capita.

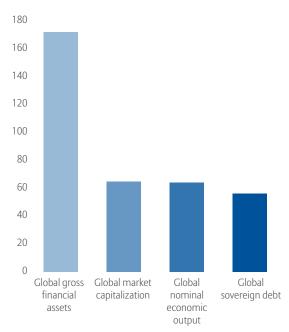
#### Asset growth picking up again

Development of global gross financial assets



- Global gross financial assets, in EUR tn (lhs)
- Change rate y/y, in % (rhs)

Household savings by comparison 2016, in EUR tn



Sources: IMF, National Central Banks and Statistical Offices, Thomson Reuters, WFE, Allianz SE.

#### Industrialized nations catch up

Last year's acceleration in growth mostly came from industrialized countries. While emerging markets more or less maintained the previous year's growth rate (+15.5%), growth in advanced economies doubled to 5.2%. Two countries in particular stood out: the US and the UK, i.e. precisely those countries at the epicenter of the political earthquake in 2016. Paradoxically, it may have been market reactions to the political upheaval that boosted asset growth.

Gross financial assets in the US increased by almost 6% in 2016 (following growth of 2.3% in the previous year), driven by strong growth in securities holdings, largely due to the "Trump rally" on the stock markets. Having stagnated for most of the year, the S&P 500 ended up gaining almost 10% for the year as a whole thanks to this end-of-year boost. In the UK, on the other hand, financial assets grew by 8% last year (following a drop of about 2% in 2015); in-

surance companies and pension funds, which achieved strong value gains on their bond holdings as a result of falling interest rates, were responsible for this. In total, these two countries account for about 40% of global asset growth in 2016, with the US naturally representing the lion's share of over 35%. Only China, which accounted for around 30% of last year's growth, has a similarly large weighting. It is therefore mainly these two economic heavyweights that are determining global growth in assets. The rest of Asia (excluding China) and Europe (excluding the UK) each have a share of only about 10% in global asset growth.

#### Europeans are saving, Americans are investing

Along with regional growth drivers, it is also worthwhile examining "functional" growth drivers in more detail, i.e. looking at the question of whether asset growth is coming primarily from new savings/inflows of funds or from changes in the value of existing portfolios.<sup>1</sup>

Inflows of funds have been relatively stable over the last few years following the slump caused by the financial crisis, with a slight dip occurring only in 2013. However, larger shifts are discernible in the composition of savings. While around 40% of new funds went to banks during the pre-crisis years, this figure rose to an average of about 50% in the years following the crisis. Last year, as much as two-thirds of fresh funds were paid into banks. Faith in bank deposits is very high in Europe in particular (and in Japan).

1 As detailed data on inflows of funds are not available for all countries, the following analysis is essentially limited to industrialized countries.

Zero interest rates do not appear to be deterring savers; security and liquidity evidently count for more. Private investors are even prepared to pay a high price for this. Even though inflation is still low, it is expected to have reduced private investors' bank deposits by around EUR 300 billion last year alone.

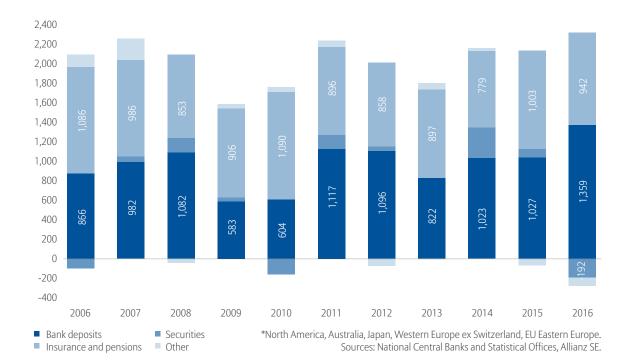
In contrast to the growing popularity of bank deposits, the importance of insurance policies and pensions has declined, with only around 45% of savings on average being invested in this asset class in recent years. Securities, meanwhile, have only ever played a marginal role. In a number of years, including in 2016, private investors have actually sold more securities than they have bought although there are significant differences between regions. While Americans have bought securities worth a to-

tal of more than EUR 700 billion in the last five years, Europeans consistently sold securities throughout this period, disposing of around EUR 350 billion worth of securities. The last few years thus confirm the cliché that Americans are more willing to take risks and to trust the stock market with their money, while Europeans are more anxious and do not trust the markets, or no longer trust them.

These differences in savings habits are also reflected in functional drivers of asset growth. On average, around three-quarters of asset growth in North America in the last few years has been attributable to changes in the value of portfolios. In other words, only 25% of growth is due to original savings. Above all else, Americans get their money to work for them. The situation is different in Europe. While the proportion of growth that is due to changes in value is just over 60% in Western Europe – including British households, which are more

#### No fear of zero interest rates

Formation of financial assets\* according to asset classes, in EUR bn



open to the market – in the eurozone it drops to 56%, 20 percentage points lower than the figure for the US. In Germany, the land of the "savings world champions", changes in the value of portfolios account for only about one quarter of asset growth, i.e. Germans are "working hard" to achieve most of their asset growth by investing fresh savings. The box below shows how hard Germans are working for their money.

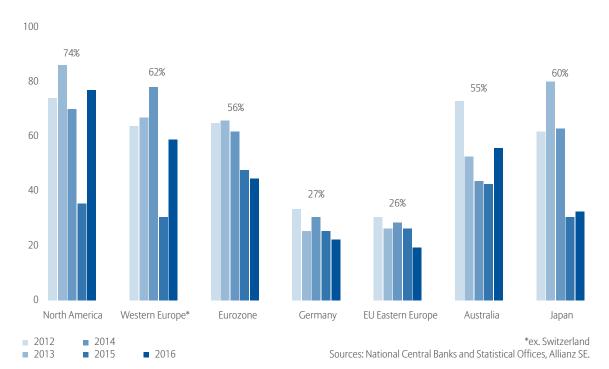
With regard to the situation in Japan, the relatively high figure of 60% (average proportion of asset growth that is due to changes in value over the last five years) may seem surprising, but can be explained by two phenomena. The first is rapid stock market growth in the initial years of "Abenomics", while the second is the fact that overall savings are low in Japan. The savings rate is coming closer and closer to zero, owing to the economic crisis and an aging population. Almost all of the money that is still being saved is being invested in banks.

## Share of securities in asset portfolios returns to pre-crisis levels

Although private investors in industrialized nations actually withdrew money from shares, bonds and investment funds in net terms last year, this class of securities achieved the strongest growth of all asset classes (8.7%) in 2016. This means the rate of change compared with 2015 was around average for the years following the crisis, but was considerably lower than the strong stock market years of 2012, 2013 and 2014, in which securities as an asset class grew by a double-digit percentage.

#### Various functional growth drivers

Share of value change in overall asset growth, in % Average of the last five years



# Do you get money to work for you, or do you work for money?

Structure matters: portfolio structure is a crucial variable in determining whether efforts to save will be successful. This can be illustrated by a comparison of the (implicit) returns on financial assets in the eurozone.

The eurozone is particularly suited to such an analysis, as all savers here are faced with the same monetary policy framework. The "implicit return on financial assets" refers to the total sum of gains in value and investment income in relation to portfolios. We have focused on the five-year period from 2012 to 2016 inclusive, which covers the phase of the ECB's extreme monetary policy – from "whatever it takes" to negative interest rates and securities purchases. We have paid less attention to returns in individual years – which can fluctuate significantly, depending largely on the performance of the stock markets – and have concentrated instead on the average return over the period as a whole, which more closely reflects structural aspects of savings habits.

## Average return on financial assets in selected eurozone countries

The differences between the individual eurozone countries are striking, with average returns ranging from 2.6% in Austria to 8% in Finland. This is naturally due in part to factors over which savers have no control, such as a strong (temporary) recovery on the stock markets, which pushed up returns in Greece in 2013, for example. However, it is certainly no coincidence that Finland and the Netherlands sometimes fare the best. Of the countries analyzed, the Finnish have the highest proportion of securities in their portfolios, while Dutch households have invested by far the largest amount in pension funds (which are relatively close to the stock markets). On the other hand, the share of bank deposits in total financial assets is highest in Austria, Germany and Portugal; saving with a focus on security and liquidity reduces the return.

#### Same monetary conditions, different results



Sources: Eurostat, Thomson Reuters, Allianz SE.

A simple simulation shows how much money is involved. If German households had not parked around 40% of their financial assets in loss-making bank deposits over the last five years, for example – the real return on these investments averaged -0.3% during this period –, but "only" 30%, and had opted instead to purchase equities with the remaining funds, then the return on assets during this period would have been 1.2 percentage points higher. The additional asset income generated as a result would have come to almost EUR 60 billion per year, or EUR 290 billion for the full five years.

Rather than switching their portfolios into more risk- and return-oriented investments, however, German savers have chosen a different method of compensating for losses due to extremely low interest rates, and have significantly increased the proportion of their earned income that they save. This has proved successful. If we look at growth in per capita financial assets since 2012, it becomes apparent that, despite pitiful returns, Germany by no means comes last. Instead, it is above the average figure for the eurozone (21.3%) with an overall rate of 24.1%, and well ahead of countries such as Portugal (8.1%), Italy (15.9%) and France (20.5%). However, this success comes at a price. Germany is the only country apart from Austria where savings from earned income have contributed to asset accumulation. In all other countries, the situation is the precise opposite; assets are growing purely due to changes in value and savings from investment income, while earned income is being left untouched. On the contrary, investment income – and, in the case of Portugal, gains in value – are being used to supplement earned income. Money is working for savers. In Germany (and Austria), meanwhile, savers are working hard to protect their assets against low interest rates. Since 2012, for example, German savers have poured around EUR 310 billion, or just under EUR 4,000 per capita, of their earned income into asset accumulation instead of consumption, a trend that is on the rise. That has allowed them to survive the period of low interest rates largely without losses so far. However, the above simulation shows that this could also have been achieved by other means.

#### Saving against low interest rates



Sources: Eurostat, Thomson Reuters, Allianz SE.

Two factors are chiefly responsible for this positive development. One is the rally on the stock markets towards the end of the year following the US presidential election. Securities holdings grew strongly as a result of this, particularly in North America (+7%). A more positive end to the year in Europe prevented securities as an asset class from suffering a loss for the year and ultimately allowed them to break even. Secondly, equities and other securities achieved high growth rates in Asia (excluding Japan). Securities as an asset class grew by almost 23% in this region. However, this was driven not so much by the performance of the stock markets (the Shanghai stock exchange lost around 12% in 2016, for example) as by high inflows. Products that are similar to funds remain extremely popular, particularly in China, where interest on deposits is strictly regulated. Securities as an asset class also grew strongly (by almost 12%) in Latin America, although this must be viewed in the context of inflation of over 10%.

Securities held by private households around the globe totaled EUR 68.7 trillion at the end of 2016, meaning that this asset class accounts for just under 41% of total savings and has returned to the same level as before the crisis.

# Insurance policies and pensions increase in value thanks to falling interest rates

The second major asset class in the portfolio, private household receivables from insurance companies and pension institutions, grew by a total of 6% at global level in the course of 2016. Although this was the weakest growth of all asset classes, it was almost double the growth rate for 2015.

All regions reported higher growth rates last year, with the exception of Latin America where growth nevertheless remained in double figures owing to inflation. There was a particularly noticeable jump in Western Europe, where growth shot up from 1.8% in 2015 to 8%. However, this was not due to a rise in inflows, which remained more or less stable year-on-year, but to changes in the value of existing portfolios, particularly bond holdings which benefited from falling interest rates. In addition to the UK, this particularly affected France (+13.1%) and the Netherlands (+9.5%). France highlights how little this growth reflects actual savings habits. Private investors in France reduced their investment in insurance policies and pensions by almost 17% last year. The impending interest rate reversal could therefore quickly wipe out last year's value gains. While insurance policies and pensions enjoyed a solid year in North America (+4.5%), growth was much more dynamic in Asia (excluding Japan) and Eastern Europe, each of which achieved growth rates of over 10%. This asset class still plays only a subordinate role in these two regions, however.

The total global portfolio of insurance policies and pensions exceeded the EUR 50 trillion mark for the first time, at EUR 50.5 trillion. This is up 56% on the peak reached before the financial crisis. Growth in this asset class has nevertheless been weaker than in securities and bank deposits over the last decade. Its share in the overall asset portfolio has therefore declined slightly, by half a percentage point to just under 30%.

#### Bank deposits: No fear of zero interest rates

The popularity of bank deposits as a "safe haven" and a source of guaranteed liquidity remains undiminished. Demand, term and savings deposits again grew strongly in 2016, by 6.3%. Not only did this exceed average growth for the years since the crisis, it was also a full percentage point above the previous year's growth. Total assets held in the form of bank deposits came to EUR 45.8 trillion at the end of 2016, an increase of 70% compared with 2007. These assets accounted for about 27% of the overall asset portfolio, which was still two percentage points higher than in the pre-crisis years.

When interest rates are at zero, growth in bank deposits usually comes from inflows of fresh savings. Households<sup>2</sup> increased these savings by almost 30% last year. The amount of money invested in banks in the eurozone soared by more than 50%, pushing up bank deposits in the eurozone by 4%, their highest growth since 2008. This trend can be interpreted in two ways. On the one hand, stronger inflows of savings reflect Europe's economic recovery, with rising wages and more jobs giving households greater financial scope. At the same time, the fact that two-thirds of savings are being put into banks - which are not offering any interest on them - suggests that investors remain highly mistrustful of the situation on Europe's financial markets. The European Central Bank has so far been unable to change much about this, despite its extremely expansive and unconventional monetary policy. On the contrary, many people are likely to view the fact that monetary policy remains in crisis mode as confirmation of their doubts.

As well as Western Europe, North America was another region in which growth in bank deposits gained momentum in 2016 (to 6.6%). This was also driven by higher inflows, which grew by 30%. It looks as though many private investors in the US wanted to play it safe in the run-up to the presidential election, which would determine the course ahead. Additional funds

2 These figures relate to households in North America, Western Europe (excluding Switzerland), the eastern European EU member states, Australia and Japan.

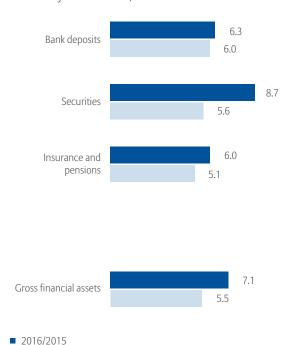
paid into banks corresponded more or less exactly to the reduction in the amount invested in shares, bonds and funds. Growth in bank deposits also accelerated slightly in Asia (excluding Japan), although at 9.6% it remained below the average double-digit rates in the years following the crisis. In contrast, growth slowed in the other two emerging regions of Latin America and Eastern Europe – in Latin America, this was the fifth consecutive year that this had happened. This is likely to be due less to wider diversification of savings across different asset classes, and more to weaker economic growth. This applies in particular to the situation in Latin America, where growth in bank deposits came to around 8% but remained well below the inflation rate.

#### Asset growth in Asia continues unabated

Asian households had total savings of EUR 47.6 trillion at the end of 2016. Private financial assets in the region have more than doubled since 2006, with average annual growth of 8.0%. Asia overtook Western Europe, which was previously the world's second-richest region, in 2012. If financial assets of Japanese households are excluded, which grew by an average of only 1.1% per year in the same period and represent almost one-third of all savings in Asia, then average annual growth nearly doubles to about 15%. Asset

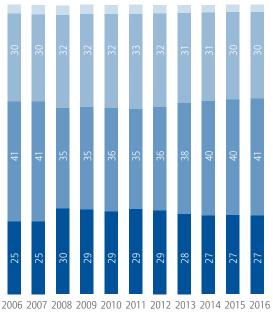
#### Securities recording the strongest growth

Growth by asset classes, in %



CAGR\* 2006-2016

#### Asset classes as % of gross financial assets



Bank deposits Securities Insurance and pensionsOther

Sources: National Central Banks and Statistical Offices, Allianz SE.

<sup>\*</sup>CAGR = Compound Annual Growth Rate

growth in this group of countries even accelerated by about another half a percentage point yearon-year in 2016, to 15%. No other region grew as rapidly as Asia (excluding Japan), either last year or in a long-term comparison. The main driving force behind this is the increasing importance of China, where household financial assets have risen at an average rate of almost 21% per year over the last decade. The share of the world's second-biggest economy in financial assets in Asia (excluding Japan) climbed by 28 percentage points in this period to around 69%. In terms of absolute financial assets, China overtook Japan in 2014. At the beginning of the decade, total savings of Chinese households came to just one quarter of private financial assets in Japan. At the end of last year, however, they were almost 50% higher. The share of the entire region of Asia (excluding Japan) in global assets more than doubled in this period to around 19%.

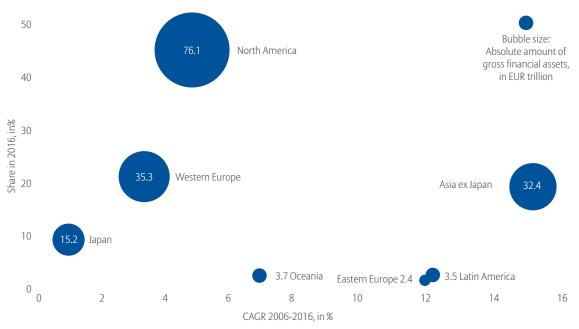
China's economic rise and its insatiable appetite for raw materials also contributed indirectly to the upturn in Latin America. High world market prices for crude oil, copper and other raw materials led to rising export revenue and capital inflows in the region, which is rich in natural resources. The subcontinent's economic output almost trebled during the 2000s, Latin America's "golden decade". Along with rising incomes, generous social welfare programs allowed many households to build up a financial buffer. Private financial assets in the region grew at an average annual rate of 12% between 2006 and 2016, although growth has slackened considerably since 2011. A slowdown in growth in China and falling prices on the commodities markets have plunged the region into a crisis that has left its mark on private asset accumulation. While growth in household savings averaged just under 15% per year in the first half of the last decade, this dropped to just under 10% in the second half. Moreover, most of this is being eaten up by rising inflation. Financial assets in the region grew by almost 11% last year, but after deduction of the average inflation rate of about 10%, households were left with very little growth. Despite the slowdown in the last few years, household assets in Latin America have more than trebled since 2006 and totaled nearly EUR 3.5 trillion at the end of 2016. The region's share of global gross financial assets increased from 1.1% to 2.1% during this period.

Asset growth noticeably slackened in Eastern Europe as well. Although household savings grew slightly faster than the global average last year, at 7.9%, the rate of growth has slowed continuously over the last three years. That means asset growth slowed to an average annual rate of 10.4% in the second half of the last decade, compared with average growth of 13.7% per year in savings between 2006 and 2010. This trend was much more noticeable in the countries outside the European Union than it was in the EU member states of Eastern Europe, which is hardly surprising given that the Russia-Ukraine conflict was still smoldering and that the Russian economy is heavily dependent on oil prices.

In the wealthier parts of the world, where households already have substantial assets, private savings naturally grew more slowly than in emerging countries. A classic example of this is Japan, which is one of the world's 10 richest countries in per capita terms, with gross financial assets of EUR 118,950. However, private assets have grown at an average rate of just 1.1% per year since 2006, much more slowly even than in Western Europe or North America (+3.4% and +4.8% respectively in the same period). This meager growth is principally a result of very conservative, liquidity-oriented investment behavior. The Japanese have traditionally held more than half of their financial assets in the form of bank deposits, which are generating barely any income for savers owing to decades of low interest rates. For many years, it was also virtually impossible to achieve any value gains on the domestic stock market. At some points during the 2000s, the Nikkei fell back to the same levels it was at in the early 1980s. The situation

#### Aseets and growth by region

Share of global gross financial assets in 2016 and average annual growth since 2006



\*CAGR = Compound Annual Growth Rate Sources: National Central Banks and Statistical Offices, Allianz SE.

did not start to change until 2013, with the beginning of "Abenomics". While Japan's leading index was still down by almost one-third on its 2007 level at the end of 2012, it had exceeded this level by more than 24% three years later. Private household assets held in the form of equities and fixed-income securities shot up by almost 40% to nearly EUR 2.7 trillion in this period alone. However, this asset class accounts for only 18% of the portfolio and therefore plays a relatively minor role, so the overall effect remained a modest one. The Nikkei more or less stagnated in 2016 (+0.4%), although securities holdings grew by 2.4%. Growth in total financial assets in Japan came to 1.8% last year, marginally higher than the previous year's growth (+1.7%). Japanese savings totaled EUR 15.2 trillion at the end of 2016. The country's share of global financial assets has fallen from 13.4% to 9.0% in the course of the last decade.

The financial assets of households in Western Europe grew more than twice as fast as those in Japan last year, with the growth rate increasing by two percentage points year-onyear to 4.7%. This was more dynamic growth than the long-term average (+3.4% a year). The weak performance of securities as an asset class (+0.6%) was more than offset by strong gains in the value of assets held in the form of insurance policies and pensions, and by stable, high inflows of funds. The preference for investments that can be liquidated quickly is less obvious in Western Europe than in Japan. However, more savings were held in savings accounts (30.0% of the portfolio) at the end of 2016 than the average for industrialized countries (23.9%). Riskier investments such as equities and other securities made up 26.5% of the portfolio. Insurance policies and pensions remained the most popular savings products, accounting for 40.9% of the portfolio in total. All in all, savings of western European households came to EUR 35.3 trillion, or just under 21% of global assets.

Households in North America have more of a risk appetite in their investment strategy. Securities accounted for more than half (51.4%) of the asset portfolio there at the end of last year. By contrast, bank deposits, which are so popular in Japan and Western Europe, made up only 14.0%. North American households saved almost 32% of their financial assets in the form of insurance policies and pensions, although these are often linked to the performance of the capital markets, particularly in the US. In a long-term analysis, this savings behavior has paid off. Average annual growth since 2006 has been 4.8% in North America, above both the western European average (+3.4%) and the Japanese average (+1.1%). Last year's performance was above-average owing to the "Trump effect" on the stock markets, with the total volume of assets growing strongly by 6.0% to EUR 76.1 trillion. With a share of around 45% in global financial assets, North America is the richest region on the planet.

However, Oceania recorded by far the strongest asset growth among the world's wealthier regions in 2016. Household savings in Australia and New Zealand grew by a total of 7.6%-2.3 percentage points more than the average for advanced economies. This good performance was particularly due to strong growth in assets held in the form of insurance policies and

pensions (+10.2%) and in bank deposits (+7.3%). This positive asset development down under also stands out in a long-term comparison. Not least thanks to the past commodities boom, average annual growth over the last decade was also relatively high, at 6.9%. By way of comparison, the average figure for industrialized countries was "only" 4.1%. Total private savings in Oceania have more than doubled since 2006, coming in at EUR 3.7 trillion at the end of 2016. Households invest just over half of their assets in insurance policies and pensions. Bank deposits and securities are roughly neck-and-neck, accounting for 22.1% and 24.5% of the portfolio respectively.

#### Poorer regions are catching up

Although asset growth in emerging markets has been more than four times as high on average as in industrialized countries over the last decade, the weightings on the world wealth map are shifting only slowly. The share of North America and Western Europe in global gross financial assets has declined by almost 9 percentage points since the end of 2006. However, the two regions together still held two-thirds of the world's assets at the end of last year. With a "global share" of around 45%, North America was the richest region on the planet. In Asia-Pacific, Japan accounted for a further 9.0% of assets and Australia and New Zealand for 2.2%. That means that over three-quarters of global financial assets were still in the hands of private households in the

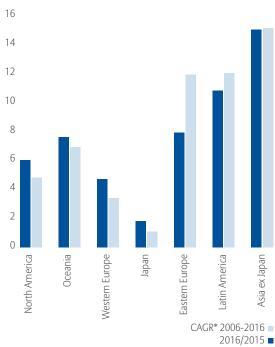
## Asset structure and growth by region

Asset classes as % of gross financial assets, 2016

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\*CAGR = Compound Annual Growth Rate

Growth of gross financial assets, in %



Sources: National Central Banks and Statistical Offices, Allianz SE.

world's richer areas, even though these households make up less than one-fifth (just under 19%) of the earth's population. The remainder of the world's financial assets (just under 23%) are distributed among Latin America (2.1%), Eastern Europe (1.4%) and other Asian countries (19.2%), i.e. among a total of about 4 billion people. Their share of global financial assets rose by 1.4 percentage points last year alone and has more than doubled over the last decade.

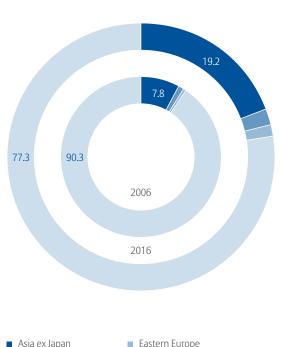
Nevertheless, this power shift is taking place in slow motion compared with development of economic output. In terms of gross domestic product, the weightings have already shifted away from richer regions and much further towards the world's poorer regions. The two heavyweights of North America and Western Europe not only had a much smaller share in global gross domestic product (around 53% at the end of 2016) than in global assets, but have also experienced a decline of 12 percentage

points in their share of global GDP since 2006, much sharper than the drop in their share of global assets. Conversely, the world's poorer regions have upped their share of global economic activity by almost 16 percentage points, to around 37%, during the same period. The increase in the importance of emerging markets in global economic growth is even more dramatic. While Asia (excluding Japan), Latin America and Eastern Europe accounted for just under 42% of absolute growth in global gross domestic product back in 2006, this had risen to around 62% by 2016. In contrast, they were responsible for only about 40% of asset growth. In both cases, the majority of growth was attributable to a rapid catching-up process in Asia, more specifically in China. The Middle Kingdom accounted for around 26% of worldwide economic growth and 30% of global asset growth in 2016 alone.

#### Slow catch-up process in wealth

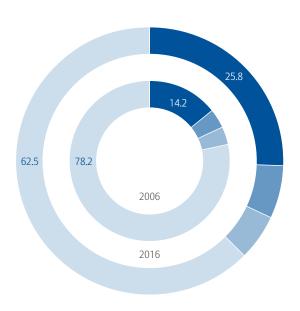
Latin America

Regional shares of global financial assets, in %



Rest of world

Regional shares of global GDP, in %



Sources: National Central Banks and Statistical Offices, Allianz SE.

#### Inflation qnaws at assets

The significantly higher rates of asset growth in emerging countries are put into perspective if we include two factors in the analysis: development of consumer prices and population growth. The latter plays only a minor role; total population growth in emerging markets reduces long-term average growth in gross financial assets by one percentage point in per capita terms, while this demographic effect comes to half a percentage point in advanced economies. There is therefore little change with regard to the major differences.

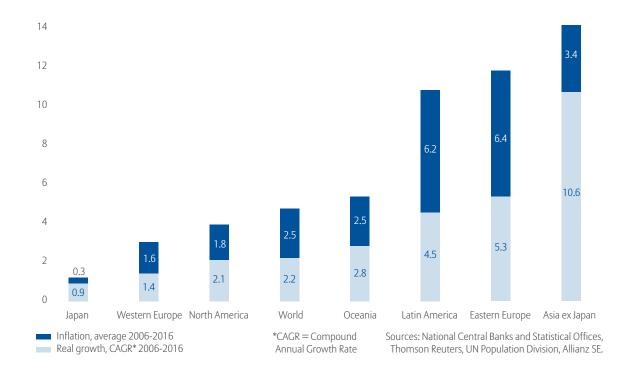
In terms of asset growth in real terms however, i.e. minus the general rate of inflation, the effects are much more pronounced. Per cap-

ita asset growth is significantly reduced in all regions, but inflation has the biggest impact on private assets in Eastern Europe and Latin America, where average annual growth falls to 5.3% (instead of 11.7%) and 4.5% (instead of 10.8%) respectively. Asia (excluding Japan) remains the clear leader in a long-term comparison even after deduction of inflation, with growth of 10.6% p.a. since 2006.

In real terms, growth differentials compared with advanced economies, particularly North America and Western Europe, thus no

### Financial assets in Latin America and Eastern Europe increasingly affected by inflation

Inflation rate and real growth of gross financial assets per capita, in %



longer appear quite so pronounced, even if inflation is naturally also curbing asset accumulation in these regions. North America is now clocking up growth of 2.1% a year (real gross per capita financial assets since 2006), compared with only 1.4% in Western Europe, which is thus just ahead of Japan (0.9%) after adjustments for inflation. In a long-term analysis the wedge that inflation drives between nominal and real value growth is much smaller than if we only look at developments last year. Savers in North America, Western Europe and Japan benefited from the fact that prices hardly increased at all, meaning that their assets barely lost purchasing power in net terms. This highlights once again that central banks' persistent fight for higher inflation rates is not necessarily in the best interests of savers.





Global household liabilities exceeded the threshold of EUR 40 trillion for the first time in 2016. The growth rate was 5.5%, above the previous year's level of 4.4%. Debt growth has accelerated noticeably since 2013, and seems to be gradually returning to familiar territory. Low interest rates make borrowing more attractive while loan volumes have probably increased, particularly in the case of mortgages, in line with developments in house prices over the last few years. According to the Organisation for Economic Cooperation and Development (OECD), the nominal house price index for OECD countries has on average risen by almost 18 percentage points in the last four years alone.

However, global debt growth masks contrasting developments at regional level. Compared with 2015, the pace of growth accelerated over the course of the year in North America (from +2.8% to +3.3%), Western Europe (from +1.8% to +2.6%) and Eastern Europe (from +3.2% to +4.1%). A moderate slowdown occurred in Japan (from +2.9% to +2.4%), while total private debt in the other countries in the region grew by 16.7% and thus 4 percentage points faster than in 2015. Latin American households, on the other hand, took their foot off the accelerator: the outstanding debt volume grew by 6.5% last year, 2.6 percentage points less than in 2015. Even in Oceania, where debts are rising at above the average rate for industrialized countries, the growth rate declined by half a percentage point to 6.5%.

#### Return of global debt growth

Increase of debt by region, in % Development of global debt burden North America 45 10 9.1 40 Oceania 35 Western Europe 30 6 25 Japan 20 Eastern Europe 15 144 10 2.5 2.4 Latin America 133 1.9 5 Asia ex Japan  $\cap$ 145 2015 2016 2006 CAGR\* 2006-2016

Liabilities worldwide, in EUR tn (lhs)Change rate y/y, in % (rhs)

- CAGR\* 2006-2016, in % (rhs)

 $\label{eq:Compound} \mbox{*CAGR} = \mbox{Compound Annual Growth Rate} \\ \mbox{Sources: National Central Banks and Statistical Offices, Allianz SE.}$ 

Based on the long-term average, Eastern Europe and Asia (excluding Japan) come joint first in terms of debt growth, averaging around 14% annually between 2006 and 2016. That means household liabilities in these regions have more than quadrupled over the last decade. In Eastern Europe in particular, which is heavily dependent on the economic situation in the eurozone, the outbreak of the financial crisis forced households to drastically reduce their borrowing. Annual growth rates of over 30% had been the norm in the years prior to the crisis.

Within Eastern Europe, however, a long-term comparison between EU member states and countries outside the European Union reveals significant differences in growth. While debts grew at an average rate of about 10% in EU member states between 2006 and 2016, liabilities in the other countries in the region rose by an average of around 22% per year. Nevertheless, it is important to put the rapid growth in Kazakhstan, Russia, Serbia, Turkey and Ukraine into perspective by bearing in mind that households there started from a very low level. Average per capita debt in these countries was just EUR 250 in 2006; in the EU member states at that time it was already almost seven times as high.

In the last few years, however, the two have moved closer together, both in terms of growth and in absolute terms. This reflects firstly the eurozone recovery, and secondly the Russia/Ukraine conflict and slow growth in the Russian economy, which depends heavily on oil prices. Eastern European household debt actually grew at the same pace inside and outside the EU last year (around 4%). Despite this, per capita debt in the EU member states averaged EUR 3,730 at the end of 2016, "only" just under three times as high as in the rest of the region.

Asia (excluding Japan), which was barely affected by the financial crisis, experienced only a marginal slowdown in the second half of the last decade. Although outstanding debt volumes rose at an average rate of more than 15% per year from 2006 to 2010, average annual growth since then has been just under 14%. Average per capita debt was EUR 2,350, slightly higher than in Eastern Europe (EUR 1,910). In Latin America, where liabilities have risen by an average of about 13% per year since 2006, a noticeable slowdown in the growth rate has occurred only in the last three years. Since 2014, private debt has been rising at a single-digit percentage rate – and thus more slowly than inflation. The economic crisis is forcing households to reduce their consumption and therefore to cut back on borrowing as well.

In North America, Western Europe and Japan, where debt levels are of course much higher than in emerging regions, the long-term average growth rate has been a low single-digit percentage. Japan came bottom of the league, with private debt having risen by an average annual rate of just 0.4% since 2006. Households there actually reduced their liabilities in the years preceding the crisis, unlike in North America and Western Europe. However, the rate of growth in private debt in Japan has again risen in the last few years. A huge increase in the Japanese central bank's already extremely expansive monetary policy appears to be bearing fruit by

boosting private household borrowing. Furthermore, property market trends have reversed in the last few years, with house prices rising again for the first time since the early 1990s. According to the OECD, the nominal house price index climbed by 8 percentage points between 2013 and 2016, having previously slumped by more than 80%.

North American household liabilities grew at an average rate of 2.3% per year in the period from 2006 to 2016, slightly more slowly than in Western Europe (average growth of +2.8% per year). This is due in particular to developments between 2008 and 2011, when the subprime crisis forced US citizens to restructure their asset balance sheets. Private debt in the US fell by about 5% or around EUR 690 billion during these four years, partly owing to payment defaults. The trend changed in 2012 and debt growth has since risen continuously, reaching 3.2% last year. This was primarily due to student and car loans, each of which have since grown at a rate of around 8% per year, reaching a total volume of EUR 2.4 trillion, or just under 17% of the total volume of loans, at the end of 2016. Before the property bubble burst, their share of the total was just under 10%. On one hand, low interest rates are stimulating demand for credit; on the other, lending conditions – particularly for car loans

– have been relaxed again, meaning that loans are increasingly being granted to lower-income households. If interest rates were to rise again, financially weak households in particular could find it difficult to repay their debts. Total private debt in the US reached a new record level of around EUR 14.3 trillion. Per capita debt in North America was EUR 44,120 at the end of 2016.

A phase of more modest credit demand also began in Western Europe with the outbreak of the financial crisis. Households in the euro crisis countries in particular have since made significant progress in reducing their debts. Since the end of 2008, private liabilities in Greece, Ireland, Portugal and Spain have contracted by a total of EUR 283 billion, or an average rate of 2.6% per year. In the other countries in the region, however, debts rose by an average of 2.2% per year in the same period. After debts stagnated in Western Europe in 2012 and 2013, they are starting to increase again slightly, albeit at a low rate. Per capita debt averaged EUR 25,960 at the end of 2016, although it varied enormously, ranging from EUR 10,220 in Greece to EUR 93,120 in Switzerland.

Private liabilities "down under" grew at around three times the rate of those in Western Europe, reaching an average annual growth rate of 7.0% over the last decade. Although the pace of growth slowed by half a percentage point last year, it was still almost twice as high as in North America. House prices in Australia and New Zealand have, with only brief interruptions, soared since the early 2000s. In the last four years alone,

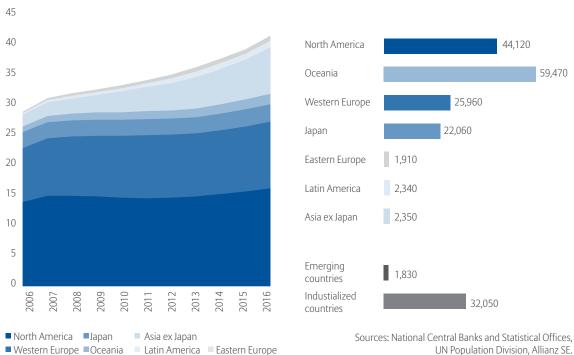
according to the OECD, nominal prices have shot up by almost one-third in Australia and nearly 50% in New Zealand. In terms of per capita debt, households in Oceania overtook North America as early as 2009; at the end of 2016, they had average per capita debt of EUR 59,470. This means that debt down under was 31 times higher than in Eastern Europe, the region with the lowest level of per capita debt.

As expected, the distribution of global liabilities between individual regions at the end of last year was similar to that of assets. North America, Western Europe and Oceania accounted for a total of 70% of global debt, which roughly corresponds to the share of these regions in global gross financial assets. A further 7.0% is borne by Japanese households, with 18.4% attributable to other Asian countries. With a share of 1.9%, Eastern Europe is bottom of the debt league, followed by Latin America (2.8%) in second-last place. While this gives Asia (including Japan) a share of global debt that is below average compared with the continent's share of global assets, the situation is the other way round entirely in the other two regions. However, emerging regions have noticeably increased in importance over the last decade; since 2006, their share of global debt has risen from just under 9% to around 23%.

#### Weight of emerging regions growing – but per capita debt still low

Development of global debt, in EUR tn

Debt per capita 2016, in EUR



UN Population Division, Allianz SE.

#### Global deleveraging comes to an end

In 2016, global debt grew faster than nominal economic output (+4.5%) for the first time since 2009. The global debt ratio, i.e. liabilities measured as a percentage of GDP, thus increased from 63.9% in the previous year to 64.6%. This ratio has fallen by more than 7 percentage points since reaching a historic high in 2009. However, economic growth's lead over debt growth was already shrinking in the years leading up to 2016. The global deleveraging process has come to an end.

Despite rapid credit growth in the past, the ratio of liabilities to general economic activity is lower in Eastern Europe than in any other region. After debt growth slowed considerably in the last few years, falling well below the pace of economic growth, the ratio dropped to 22.1% last year, compared with 22.6% in the previous year. The ratio in the region's EU member states,

which was just under 33% on average, was unsurprisingly much higher than in the rest of the region (almost 17%), although all countries were still below the 50% mark. The ratio in Latin America was almost 7 percentage points higher than in Eastern Europe at just under 29%, with liabilities growing at a noticeably faster rate (around 13% a year on average) than economic output (almost 10% a year on average) in the period from 2006 to 2016. Nevertheless, no country has overshot the 50% mark to date in this region either. There is more cause for concern when it comes to Asia (excluding Japan). Of all emerging markets, this region has the highest debt ratio, which climbed by another 3.6 percentage points to around 46% in 2016. The ratio of liabilities to GDP is already dangerously high in some Asian countries. At the end of 2016, the ratios in Thailand (80.4%), Malaysia (88.5%) and South Korea (95.8%) were at a similar level to those reached in Spain (86.6%), Ireland (100.7%) and the US (99.7%) at the end of 2007, shortly before the credit bubble burst. Although the ratio in China is still below the 50% mark, at 45.1%, it has almost trebled in the last decade.

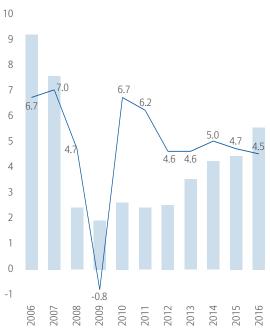
The ratio for Japanese households was 64.6% at the end of 2016, up by 0.7 percentage points year-on-year and well below the average for advanced economies (79.6%). The debt ratio

in North America was slightly above average, rising by 0.4 percentage points over the course of the year to 83.1%. Compared with the record of 97.9% set in 2009, however, the ratio of liabilities to economic output has contracted by almost 15 percentage points. In Western Europe the ratio has fallen by 4.7 percentage points since then, reaching 75.0% last year. This means that the global deleveraging process sparked by the outbreak of the financial crisis is almost exclusively attributable to these two regions.

In no other region of the world is the relative debt burden as high as in Oceania. Unlike in North America and Western Europe, the debt ratio has actually risen further compared with 2009, climbing by a total of 12 percentage points to 128.3%. Last year alone, it grew by 3.2 percentage points. That means that Oceania is drifting further and further from the global average. While the gap between it and the global average was around 38 percentage points in 2006, it came to almost 64 percentage points at the end of 2016. However, this development is not only due to a comparatively high level of debt growth; it is also the result of more sluggish economic growth in the region.

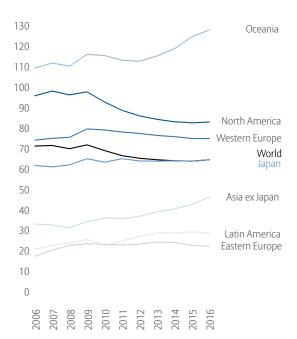
#### Debt growth now higher than economic growth

Economic growth vs. debt growth, y/y in %



- Global liabilities
- Global nominal GDP

#### Liabilities as % of nominal GDP



Sources: National Central Banks and Statistical Offices, Thomson Reuters, Allianz SE.

#### A large wealth gap between the regions

If we subtract debt from gross financial assets, we are left with net financial assets, which reached a new global record high of EUR 128.5 trillion at the close of 2016. Since growth in total savings was 7.1% last year, 1.6 percentage points above the rate of debt growth, the growth rate in net terms was 7.6% – slightly below average for the years since the crisis.

A look at the world wealth map tells a predictable story. Discrepancies between household assets in the world's richer regions and those in poorer regions remain huge. The wealth gap becomes particularly clear if we compare North America and Eastern Europe. North America remains the richest region in the world, with average per capita assets of EUR 168,130 last year. By contrast, Eastern Europe was the region with the lowest net financial assets. At the end of 2016, after deductions for liabilities, households had an average of EUR 4,150 per capita. This means that North Americans had 41 times the assets of eastern Europeans. Nevertheless, this factor was as high as 71 back in 2006, so the trend is, at least, moving in the "right" direction.

On the other side of the globe, in Asia-Pacific, Japanese households led the field with average per capita assets of EUR 96,890. However, their lead over Taiwan (EUR 92,360) and Singapore (EUR 89,570) is now very narrow; Taiwan, at least, could overtake Japan as early as next year. At the beginning of the decade, net per capita financial assets in Japan were still more than 60% higher than in these two countries. In Asia (excluding Japan) as a whole, per capita financial assets averaged EUR 7,850 - largely due to the fact that assets in India and Indonesia are still very low. The level of assets in Oceania was significantly lower than in Japan. Due to high debt levels, average net financial assets of households in Australia and New Zealand came to EUR 70,410 per capita, well below the average for Japan. Leaving liabilities out of the equation, households in Oceania had average gross financial assets of EUR 129,880 per capita, putting them ahead of their Japanese counterparts (EUR 118,950).

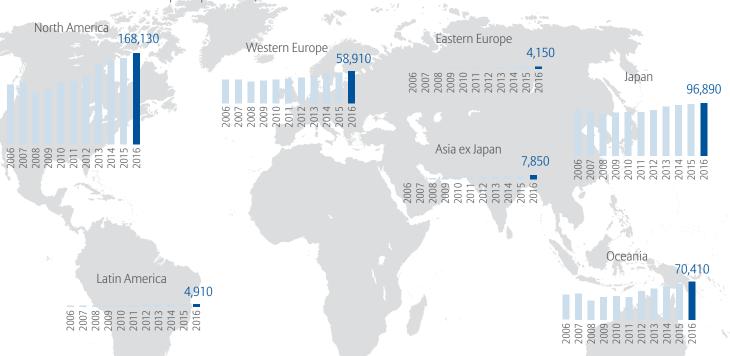
Net per capita financial assets in Western Europe were lower than in Oceania at the end of 2016, coming to EUR 58,910. Although the gap between Western and Eastern Europe has narrowed perceptibly over the last decade, it is still significant. Although average per capita assets in Western Europe in 2006 were 28 times higher than in the east of the continent, this factor had halved by the end of last year. The transatlantic wealth gap, on the other hand, is moving in the opposite direction and is widening continuously. At the beginning of the decade, net per capita financial assets in Western Europe came to around 39% of per capita assets in North America. By the end of 2016, this figure had dropped to 35%.

## Asia (excluding Japan) leaving all other regions far behind

Private savings in Asia (excluding Japan) have grown the most dynamically over the last decade, even after deduction of liabilities. Net per capita financial assets in this region have grown at an average of 14.2% per year since 2006, with the growth rate actually accelerating noticeably in the second half of the decade. In Eastern Europe, per capita assets have risen at an average annual rate of just under 11% in net terms, owing to a decline in debt growth. Growth on the assets side of the balance sheet, however, has also slowed, so the region has been unable to keep pace with Asia (excluding Japan) in net terms. This is also the case with Latin America, where savings have risen much more slowly in the last few years than at the beginning of the decade. In net terms, the average annual growth rate for Latin American households since 2006 is around 10%.

#### Global wealth map at a glance

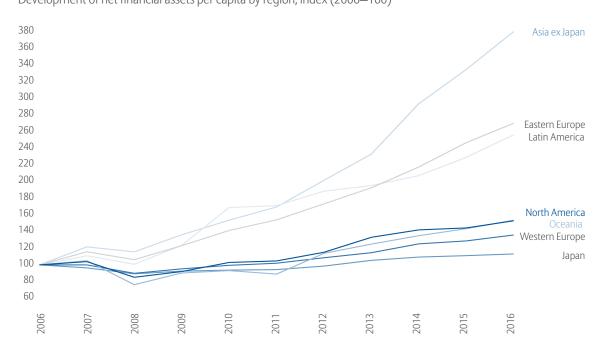
Net financial assets per capita in EUR, 2016



Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE,

Oceania and North America are more or less neck and neck with average long-term growth of 5.1% and 4.7% respectively, well ahead of Western Europe (average growth of +3.3% per year). Japan comes bottom of the league, with average growth of 1.3% a year. That means that the gap separating Japan from Western Europe is no longer very large. If we take inflation into account, Western Europe's lead shrinks even further; average growth for Western Europe comes to just +1.7% per year in real terms, compared with +1.0% in Japan.

Asia beats all
Development of net financial assets per capita by region, index (2006=100)



## No fears of a rise in interest rates

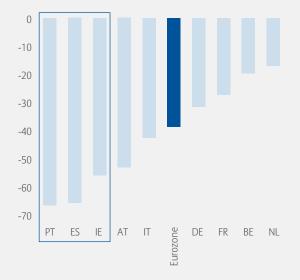
Even if the ECB continues its course undeterred, an end to extremely low interest rates is gradually coming into sight. Long-term interest rates, measured in terms of yields on 10-year government bonds, have already risen by around 60 basis points since last summer. A further increase is very likely in view of the direction that American monetary and fiscal policy is taking. How will the normalization of monetary policy affect interest payments by private households in the eurozone?

The public sector has taken advantage of a market environment that is favorable from its point of view, and has issued many long-term securities to secure low interest rates for itself over the next few years (and decades). By contrast, financing conditions for households are likely to change very quickly in the event of an interest rate reversal. They depend largely on bank loans and fixed-interest periods – where they exist at all – are generally much shorter. Often interest rates are adjusted to market interest rates instead. One (significant) exception is property loans in some markets in the eurozone, such as Germany.

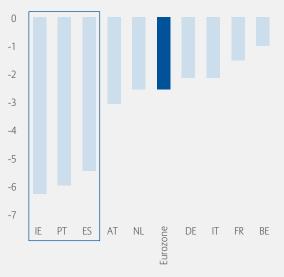
Unlike governments, however, the household sector has used the last few years to reduce its debt burden. Measured against economic output, private debt in the eurozone has declined by 5.9 percentage points since its peak in 2009. Together with the dramatic drop in interest rates, this has led to a significant reduction in interest payments. Average expenditure on interest in the eurozone was EUR 1,080 per capita in 2008; eight years later, it had fallen by almost two-fifths, to just under EUR 660. Total interest payments in the eurozone in 2016 were almost EUR 135 billion lower than in 2008. These savings are equivalent to an implicit increase in income. While expenditure on interest on loans in the eurozone came to 5.8% of disposable income on average in 2008, this had dropped to an estimated 3.3% by 2016. Households in countries on the periphery of Europe benefit the most from an extremely expansive monetary policy in relative terms, both on a per capita basis and in terms of disposable income (see chart 1).

#### Peripheral countries benefit above average

Change in interest payment per capita 2016e vs. 2008, in %



Change in interest payment in percent of available income 2016e vs. 2008, in percentage points



Sources: Eurostat, ECB, Allianz SE.

So are households equipped to deal with higher interest rates again? We used a linear regression model to estimate the impact of an increase in the ECB's base rate on average interest on bank loans in future and the associated interest payments for households. We looked at three scenarios for the possible development of the base rate up to 2022. Our basic scenario is a gradual normalization, in which the ECB only begins to raise the base rate from 2019 onwards. In contrast, the other two scenarios describe a moderate normalization and an abrupt normalization respectively. According to our assumptions, the base rate at the end of 2022 would be 2% in the basic scenario, 3% in the second scenario and 4.25% in the third scenario. At the same time, we have assumed that the average rate of growth in private debt in the eurozone will move closer to the growth rate in general economic output, following the deleveraging process of the last few years.<sup>3</sup>

Even assuming an abrupt normalization in the base rate, according to our estimates average interest on loans in 2022 will not exceed the respective peaks reached in 2003 and 2008 in any country. Our calculations show that households in Portugal are at risk of the biggest increase compared with 2016. In the least favorable scenario, in which there would be an abrupt normalization, interest rates on loans are likely to rise by 3.4 percentage points to 5.7%. Conversely, our regression analyses show that interest on loans will rise less sharply in the Netherlands, France, Belgium and Germany than on average for the eurozone (+1.6 percentage points).

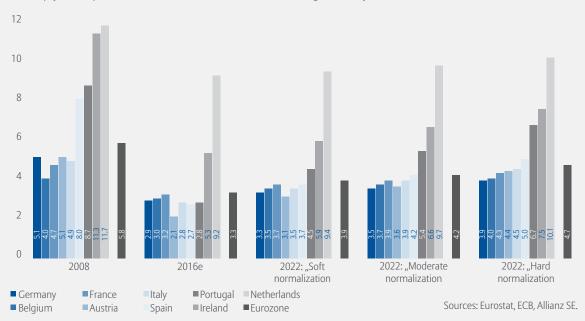
In absolute terms, our calculations show that expenditure on interest in the eurozone in 2022 will be up by EUR 94 billion, EUR 119 billion or EUR 162 billion compared with 2016 levels, depending on the scenario. Compared with the historic high reached in 2008, however, interest payments in 2022 are likely to be down by EUR 41 billion or EUR 15 billion respectively in the scenario of a gradual or moderate normalization; only in the event of an abrupt normalization would we expect interest charges to be EUR 27 billion higher than in 2008.

In relative terms, i.e. measured as a percentage of disposable income, we also anticipate an increase in interest payments in the eurozone. Even in the event of an abrupt normalization, however, this will be relatively moderate, at 1.4 percentage points (from 3.3% in 2016 to 4.7% in 2022) (see chart 2); in the other two scenarios, there will be an increase of only 0.6 and 0.9 percentage points respectively. In all scenarios, the proportion of disposable income that households in the eurozone will have to spend on interest payments will on average be well below 2008 levels in 2022. Even in the least favorable scenario, it will be more than one percentage point lower. Interest charges in 2022 will also be below the respective highs reached in 2003 and 2008 in all individual countries, with the exception of Belgium, where they could rise as high as 2008 levels in the least favorable scenario. Moreover, interest charges can clearly be seen to be leveling off; only in Portugal, Ireland and in particular the Netherlands are they still well above average.

In conclusion, a rise in interest rates would not be good news for private borrowers. Households in the eurozone will be affected to varying degrees. An adjustment could prove particularly painful for Portuguese households. On the whole, however, households in the eurozone will be able to cope with the normalization of monetary policy. There is therefore no reason to fear rising interest rates, and there are no obstacles to the normalization of monetary policy in this respect.

#### Who's afraid of rising interest rates?

Interest payment as percent of available income: historical and estimated figures in the year 2022, scenarios







4 See, for example, Lakner & Milanovic (2013), Global income distribution: From the fall of the Berlin Wall to the Great Recession, Policy research working paper 6719, The World Bank. The two previous sections dealt with changes in financial assets and debt, and naturally focused on annual growth rates and the factors that drive them. This section will look at the distribution of wealth, i.e. structural issues, where changes tend to take place slowly. The focus here will therefore be on a long-term comparison. In addition, we have further refined our methods of measuring the distribution of wealth and translating it into suitable indicators. This year we have calculated global wealth deciles as well as national wealth deciles for the first time. One thing this has enabled us to do is to recreate the famous "elephant chart" of global development in incomes4 for financial assets. Moreover, we have calculated not only average per capita financial assets, but also median values. The differences between these two variables can provide particularly useful information about the distribution of wealth.

As in reports in previous years, we have divided our analysis into two parts. Firstly, we shall look at the situation in a global context, and then we shall examine national wealth distribution.

#### At global level, China is in the ascendant

In order to analyze how wealth is distributed at global level, we have divided all households/individuals into three global wealth classes: high wealth, middle wealth and low wealth individuals. This classification is based on global average net per capita financial assets. In 2016, these came to EUR 25,510, more than twice as high as in 2000. The global wealth middle class ("middle wealth", MW) includes all individuals with assets of between 30% and 180% of the global average. This means that for 2016, asset thresholds for the global wealth middle class are EUR 7,700 and EUR 45,900. The "low wealth" (LW) category, on the other hand, includes those individuals with net financial assets that are below a EUR 7,700 threshold, while the term "high wealth" (HW) applies to those with net financial assets of more than EUR 45,900 (for details on how the asset thresholds are set, see Appendix A).

Development of wealth distribution since the turn of the millennium has been defined by one phenomenon in particular: rampant growth in the global wealth middle class. The number of people belonging to this category has more than doubled during this period, from 444 million in 2000 to over 1 billion today. This jump is particularly remarkable given that the threshold for entry to the middle class moved significantly during this time. While someone with net financial assets of over EUR 3,600 could consider themselves to belong to this class in 2000, the threshold today is more than twice as high.

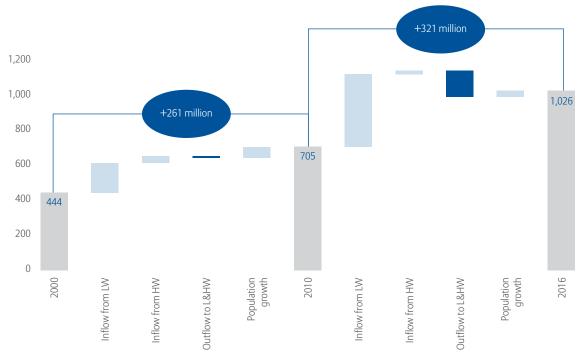
There is also another reason why this (net) increase of almost 600 million people is striking. The global wealth middle class "lost" almost 150 million people during the same period, as they moved up to join the ranks of the wealth upper class. That means that a total of 750 million people joined the global wealth middle class within just 16 years. Although a small portion of this increase (just under 100 million) is due to general population growth, the vast majority of those joining the middle class have come from the wealth lower class, with almost 600 million people making the leap since 2000.

However, the rapid growth of the global middle class is not a one-sided tale of advancement. Around 60 million people joining the middle class have moved down the scale, i.e. as households that have been "relegated" from the high wealth class. This affects primarily the US and Japan, but also crisis-hit European countries such as Italy and Greece.

Closer examination of this development reveals two further aspects, which are closely linked. After 2010, i.e. in the post-financial crisis era, growth gained momentum again – and if we look at the nationality of those moving up the scale, we see that over 80% of them are Chinese. The doubling of the global wealth middle class therefore basically reflects the rise of China – and China's star was burning particularly bright in the years following the financial crisis, when asset growth in the "West" was still suffering from the repercussions of the crisis. Not only

#### Increased dynamics after the financial crisis

Change in global wealth middle class, in million



Sources: National Central Banks und Statistical Offices, UN Population Division, UNU WIDER, World Bank, Allianz SE.

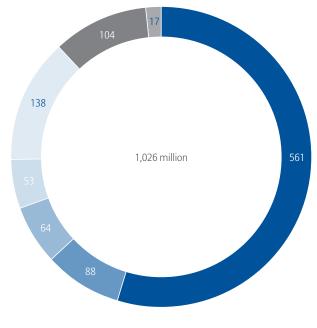
have 400 million Chinese citizens moved up to join the middle class during this period (since 2010), but more than 100 million have actually managed the next step up into the global wealth upper class.

For this reason alone the wealth upper class has grown. Although it also includes more Koreans, Taiwanese and South Africans, for example, than in the past, this growth would not have been sufficient to offset the "hemorrhaging" in advanced economies. Thanks to the influx of Chinese, however, around 550 million people worldwide now belong to the global wealth upper class, about 130 million or 30% more than in 2000. This also means that the upper class overall is much more heterogeneous than previously, when it was made up almost exclusively of western Europeans, Americans and Japanese. The latter groups accounted for well over 90% of the wealth upper class at the beginning of the millennium, compared with only two-thirds today.

Finally, a note on the global wealth lower class, which still includes the vast majority of the populations in the countries we analyzed, at 3.5 billion people. Despite continuous population growth, the number of people in this group has fallen slightly compared with 2000, causing the percentage share of the wealth lower class in the overall population to decline from 80% in 2000 to 69% today.

#### Wealth middle class speaks Chinese

Wealth middle class by region, in million



- Latin America
- Western Europe
- Eastern Europe North America Oceania/ South Africa
- Sources: National Central Banks and Statistical Offices, UN Population Division, UNU WIDER, World Bank, Allianz SE.

So do developments in global wealth distribution constitute a positive story on balance? There is no doubt that this mass advancement up to the global wealth middle class is a success story. By global standards, more and more people are able to share in worldwide prosperity.

What seems problematic, however, is that development is being driven to a large extent by a single country: China. In a world without China, the global wealth upper class would have contracted and the middle class would have grown by only 150 million people, with more than half of this growth coming from those "moving down" and from natural population growth. The wealth lower class would not have become smaller, but instead would have grown. This heavy dependence on China is the logical consequence of the fact that the world's other most populous countries, from India and Indonesia to Russia and Brazil, have so far largely failed to exploit their potential. If India, for example, succeeded in achieving growth over the coming decades anywhere near as dynamic as China's growth in recent decades, there would be no limit on further growth in the global wealth middle class.

#### Concentration of wealth remains high

And there is more bad news. Despite the emergence of a new global wealth middle class, the world is still a long way from a "fair" distribution of wealth. To investigate this in more detail, we not only divided the population of the countries we analyzed into three wealth classes in this report, but also created global deciles based on net per capita financial assets. The results showed that the richest 10% together own 79% of net financial assets, while less than 1% is left for the lower half of the population. The latter figure must be interpreted with caution, however, as those with the lowest assets also include many people in the richest countries who are in debt, and therefore should not necessarily be classed as belonging to the world's poor. The Scandinavian countries are a good example of this. Households in Denmark, Norway and Sweden are among the most highly indebted worldwide, with up to 30% of the population having higher liabilities than financial assets. However, these high debts are generally likely to be offset by tangible assets, particularly property. A home owner with a mortgage in Denmark should not be confused with a penniless day laborer in India. Although these considerations do not change anything about the strong concentration of wealth at the top, the trend is moving in the right direction in this respect. In 2000, the global concentration of wealth, i.e. the share of the top decile of the population in total assets, was 91%.

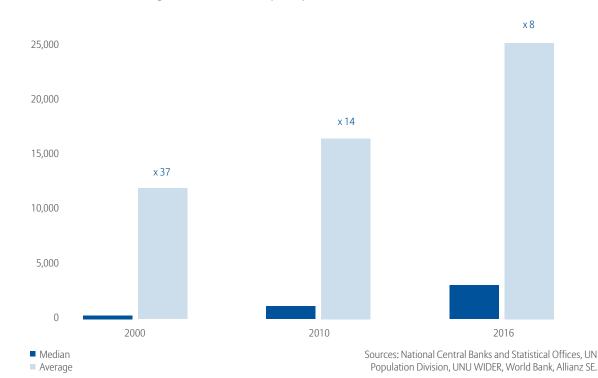
However, a comparison with national figures shows how far we still have to go to achieve a fairer world. At national level, the concentration of wealth in the "most unequal"

countries, such as the US and South Africa, comes to over 70%, while the average figure for the countries we analyzed is 53%. Unlike with the global concentration of wealth, there has been no discernible improvement here for all countries overall since 2000.

Another parameter that can be used to measure the distribution of wealth is the median figure and/or a comparison between the median and the average. The further away the latter is from the median, the greater the inequality in distribution. Once again, a look at the global figures is sobering. The median figure for net per capita financial assets of EUR 3,140 stands in contrast to an average of EUR 25,510, i.e. average financial assets at global level are eight times higher than those of the median household. The

maximum figure reached for this parameter at national level is 6 (once again, South Africa and the US), while the average is 2.5. As with the concentration of wealth, however, the trend is moving in the right direction with regard to median assets, which since the turn of the millennium have risen much faster – at an average of 15.2% per year – than average assets (+4.8%). In global terms, the (relative) gap between the median and the average has decreased rapidly, although a similar trend is not apparent at national level.

## The gap is getting smaller Global median and average net financial assets per capita, in EUR



#### An elephant without its trunk

These global wealth deciles can also be used to recreate the infamous "elephant chart", which maps income growth for each percentile of the global population between 1988 and 2008, for asset growth. In line with the data available to us, we limited ourselves to the period between 2000 and 2016.

There are clear similarities to the original. As with incomes, there was no improvement in the situation of the lowest wealth decile during these years. Even worse, net financial assets here actually declined. This is not least a reflection of one anomaly that our investigation of assets revealed. Unlike incomes, net financial assets can also be negative, i.e. in the case of over-indebted households. The negative growth rate for this decile thus indicates a faster rise in debts than in assets, as data relating to development of debt (see the previous section) would lead us to expect. Before the financial crisis in particular, liabilities in many countries grew at a breathtaking speed.

The other wealth deciles, on the other hand, all had positive growth rates, with the highest growth in the sixth and the seventh decile. As with incomes, it is therefore households in the upper middle part of the global wealth

distribution in particular – those joining the middle class in emerging countries – that have benefited the most from asset growth in recent years.

Yet the most striking difference compared to the income situation can be seen at the top end of the distribution pyramid. Growth slows not only in the eighth, and principally in the ninth, decile (as with incomes) but also in the tenth, the decile with the highest net per capita financial assets. Asset growth is actually by far the weakest in this group, if we disregard over-indebted households at the other end of the distribution spectrum. The elephant thus has no trunk. Moreover, these findings do not change if we look at the richest percentile - the top 1% of the distribution pyramid – instead of the richest decile. Although the average annual growth rate here is slightly higher than for the richest 10% (4.4% vs. 3.9%), it is nowhere near the rates of almost 15% reached in the fifth and sixth deciles.

Unlike income, growth in assets therefore slows as the level of assets increases. Why is this the case? The explanation may actually lie mainly in the level of assets itself. Even in the top decile, average net per capita financial assets are now above the EUR 200,000 threshold (2016), making them around nine times higher than the average – and more than 50 times higher than the corresponding figure for the sixth wealth decile. The richest wealth percentile is even further away from these figures. Net per capita financial assets here averaged just over EUR 900,000 in 2016. For financial assets of this scale, growth no

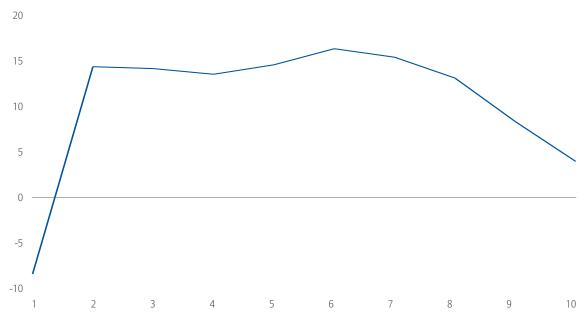
longer tends to come from savings, but instead mainly from investment income, which should roughly correspond to nominal economic growth over the long term. Furthermore, those with high levels of assets often invest them with the principal aim of preserving their value. One exception to this, naturally, is "entrepreneurial types", whose assets primarily comprise shares in their own company and who may therefore experience significant jumps in their levels of assets, in line with the company's growth. An example would be the new tech billionaires in Silicon Valley. Before any misunderstandings arise as a result of lower growth rates among the "poor rich", we should point out that an annual

increase of 4.4% still implies that assets have doubled during the period under review. In absolute terms, the gap between the richest people and the rest of the world is therefore continuing to grow.

In conclusion, the distribution of financial assets remains extremely unequal at global level. However, the situation is changing. The middle is becoming broader, even if the gap between it and the absolute top still appears unbridgeable. The rise of China is nevertheless a start.

#### The elephant without a trunk

CAGR\* of net financial assets per capita from 2000 to 2016, by wealth deciles



\*CAGR = Compound Annual Growth Rate Sources: National Central Banks and Statistical Offices, UN Population Division, UNU WIDER, World Bank, Allianz SE.

## The US slips down the rankings in a country-by-country analysis

Although this division into global wealth classes is revealing when it comes to analyzing how global weightings are shifting, it is likely to remain rather abstract for most of the people concerned. This is because the benchmark for most households is not the global average, but rather their national average – people are interested first and foremost in how much their neighbor has.

There are various ways of measuring wealth inequality at national level. One option, as in the previous section on global wealth distribution, is to analyze the proportion of assets held by the richest population decile. In a national context, however, it is often not so much the absolute level of assets, which is determined by a large number of social and historical development factors, but rather the change in distribution over time that determines whether the situation in a particular country is seen as being "fair" or "unfair". One example is Latin America, where the level of wealth concentration is still very high, at well over 50% – or is even above 60% in some cases (Brazil) - but the trend in all countries is moving in the "right" direction.

At first glance, the 53 countries we analyzed present a very mixed picture. The concentration of wealth has declined since 2000 in just over half of the countries, while in the others it has increased. If we look more closely, however, some patterns emerge. The concentration of wealth has decreased over the last few decades in emerging countries in particular, with several important exceptions (India and Indonesia in Asia, Russia in Eastern Europe and South Africa). This must be qualified further. Since the financial crisis, a tendency towards a more egalitarian distribution of wealth in emerging markets seems to have weakened. This particularly applies to many Latin American countries. The trend has even reversed completely in some emerging countries, i.e. the proportion of assets held by the top population decile has increased again since 2010. These countries, tellingly, include China and Turkey.

The situation is different in industrialized nations. The proportion of assets held by the richest 10% has risen in most of the countries we analyzed, with particularly large increases in countries such as Denmark, Switzerland, the US and France. Even among industrialized countries, however, there are prominent exceptions that confirm the rule of growing inequality. In Canada, Austria and Belgium, the concentration of wealth has decreased since the turn of the millennium. Moreover, as with emerging countries, the trend towards less equal distribution appears to have slowed significantly since the financial crisis. That applies to countries such as

5 The current wealth distribution Gini-coefficients of all analyzed countries can be found in the appendix. Switzerland and Germany, where the proportion of assets held by the top population decile has risen only minimally, the US, where the trend has stopped, and Italy, where the trend actually reversed. Even in industrialized countries, development of wealth distribution is therefore more differentiated than it appears at a first brief glance.

Other parameters that are frequently used to measure national distribution of wealth are the share of the middle class in total assets or — as a comprehensive indicator — the Gini coefficient. In last year's report, we analyzed in detail the situation of the middle class and its supposed erosion. Our conclusion then was that, although it is mainly advanced economies that are experiencing a negative trend, overall developments are too complex to be reduced to one simple factor. At any rate, there was no evidence of a general decline in the middle class as a worldwide phenomenon. For the last two years we have also calculated a Gini coefficient for each country, based on average net financial

assets for each population decile. However, as the Gini coefficient is an overall indicator that measures changes in all wealth deciles simultaneously, the shifts from one year to the next are only slight. The conclusions reached in recent years therefore still apply. It is predominantly in emerging countries that the Gini coefficient has improved over the long term, whereas a particular deterioration has occurred in industrialized countries.<sup>5</sup>

This year we are taking a different approach to the issue of national distribution. We have calculated median assets and analyzed how they have developed over the last few years, particularly compared with changes in average assets.

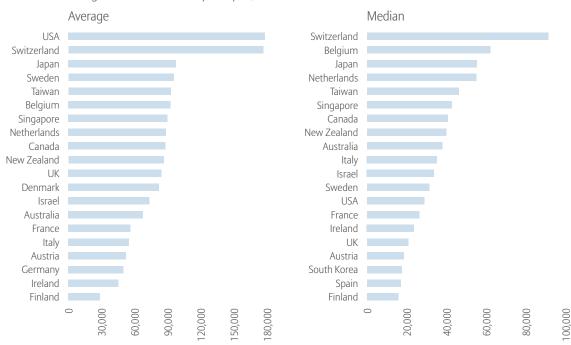
Even a direct comparison between median and average net per capita financial assets is very revealing. If we drew up our rankings of the world's richest countries based on median values, they would look completely different. The shift at the top from the US to Switzerland would actually be the smallest. Only three countries – Japan, Austria and Finland – would stay in the same place, while the rest would be shaken up, in some cases significantly. One example of this is the US, which would fall from first place to 13th place. Another is Sweden, which would drop from 4th to 12th place. The other losers include Denmark (-11 places), the UK (-5 places) and Germany (-3 places), with the latter thus also dropping out of the top 20. Median assets are significantly lower than average assets in all of these countries, an indication of relatively unequal distribution of wealth. In Scandinavian countries, this is mainly due to high levels

of debt. On the other hand, however, there would also be many countries moving up the rankings, particularly Italy (+6 places) and Australia (+5 places), with the Netherlands, Belgium and South Korea (each +4 places) also taking a relatively large leap forward. The differences between the various measurements tend to be smaller in these countries, showing that wealth distribution is more equal. Overall, these "alternative" rankings therefore confirm our previous analyses, not least with regard to the US.

The major differences in the relationships between median and average assets nevertheless come as a surprise. These range from a factor of 1.3 in Slovakia – i.e. average assets there are around 30% higher than those of the median household – to a factor of 6.6 in South Africa, where average assets are almost 700% higher. Denmark and the US are also at the top of the scale. Both countries have a very high factor of 6.2. In concrete figures, that means that while the average net financial assets of a US citizen total EUR 177,210, the median figure is only EUR 28,540. Once again, these figures confirm the reputation of the US as one of the world's "most unequal" countries. The other countries in which there is a wide gap between the median and the average figure (factor of more than 3) are a fairly mixed group. Along with four Latin American countries and Indonesia, which have

#### The alternative ranking

Median and average net financial assets per capita, in EUR



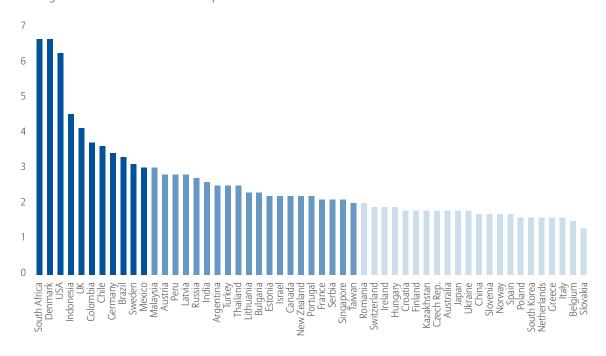
Sources: National Central Banks und Statistical Offices, UN Population Division, UNU WIDER, Word Bank, Allianz SE.

traditionally been regarded as relatively "elitist" societies, these include the UK, Germany and Sweden. The latter countries, at any rate the last two, tend to regard themselves more as "egalitarian" societies, in which the state aims to create balance with the aid of substantial redistribution. While this may work reasonably well with incomes, it is not the case with assets. In Sweden (and Denmark), this is primarily due to high debt levels among large parts of the population. In Germany, relatively high levels of inequality in wealth distribution are likely to be a result of the country's delayed reunification. However, median assets in Germany have been rising slightly faster than average assets since the financial crisis, which means that the relative gap between the two should become slightly smaller over time. These two figures also appear to have stopped drifting apart in the US in the last few years.

The countries at the other end of the spectrum, where median and average figures are relatively close together (factor of less than 2), are similarly mixed. Along with many eastern European countries, where the distribution of wealth is still fairly balanced due to the fact that people did not start to build up private assets until a later stage, this group also includes many western European countries such as Belgium, Italy, Greece, the Netherlands and Spain. However, that is where the similarities between these countries end. Not only are Belgium and the Netherlands traditionally more egalitarian societies, but median and average assets in both countries have generally grown at the same pace over the last few years and decades, with median assets even growing slightly faster than average assets in Belgium. The financial crisis has not changed anything about this trend. Development in Spain has been equally stable, albeit the other way around. Average assets have generally risen faster there, and have

#### The bad, the ugly, and the good

Average net financial assets as a multiple of median net financial assets



actually increased their lead over median assets since the financial crisis. The situation in Greece is similar, but more pronounced. Growth in average assets has been about 50% higher since the crisis. The severe crisis has thus apparently contributed to wider distribution of wealth in both countries. Greece has at any rate recently begun to grow again. This is an achievement, as Greece is the only country in our group in which median and average assets have actually fallen over the longer term since 2000, contracting by about one-third in each case. Finally, the financial crisis also represented a turning point for Italy, with its median assets growing slightly faster since the crisis. The crisis thus appears to have brought about a positive trend reversal in Italy with regard to the distribution of wealth (although not asset growth).

An analysis of median assets also shows that the asset situation has varied widely in recent years, even in countries with such similar overall conditions as the eurozone countries. We would therefore strongly warn against generalizations. The issue of distribution is more complex, at both global and national level, than the catchy headlines reporting constant growth in inequality would suggest. Apart from the US – which unquestionably has a problem with wealth distribution - the picture is becoming increasingly unclear. Light and shade are balancing each other out, with shades of gray tending to predominate. Moreover, unconventional monetary policy in recent years has made the situation more confusing (see box below).

## The impact of unconventional monetary policy on distribution

The ECB's extreme monetary policy is increasingly likely to reach its limits the longer it continues.

This can be illustrated by an analysis of the direct impact on income of monetary policy in the eurozone. The term "direct impact on income" refers to interest rate gains/losses for private households as a result of changes in the interest rates for bank deposits and loans. In contrast to the effects of monetary policy on the prices of assets such as shares, bonds or receivables from insurance companies and pension funds, which initially represent "only" book profits or losses, households feel these changes directly in their wallets (or in their bank accounts).

Private households in the eurozone are still benefiting substantially from the ECB's policy. Since 2012, the year in which the ECB vowed to do "whatever it takes" to save the euro, cumulative interest rate gains have come to EUR 145 billion, or EUR 430 per capita. Moreover, the extremely expansive monetary policy continues to be a blessing for households in the south of the continent in particular, as it significantly reduces their debt service payments. However, interest rate gains have declined noticeably in the last few years. Spain is an example of this trend: interest rate gains per capita there have dropped to less than half the levels they were at in 2012 and 2013. Two factors are responsible for this. Firstly, interest rates on loans in Spain responded very quickly to measures taken by the ECB, as e.g. mortgages have traditionally had variable interest rates or only short fixed-interest periods. However, interest on loans has barely fallen in recent years, and the scope for interest rate cuts has largely been exhausted. In addition, Spanish households have used the last few years to reduce their debts. Private debt has fallen by almost 20% since the outbreak of the crisis, while bank deposits have increased by about 9% over the same period. Just as Spanish households have got their finances back under control, however, the impact of extreme monetary policy on their income situation has diminished. This year it is therefore likely to be France that will benefit the most from ECB policy, rather than one of the southern European countries.

The trend in Germany is the reverse, which appears encouraging at first glance. Interest rate losses have become much smaller in recent years, and this year are expected to reach only one-third of the levels they were at in the period from 2013 to 2015. This reflects a rise in debt and a slower but steady decline in interest on loans. In contrast to Spain, the German mortgage market is characterized by long fixed-interest periods, which means that it takes some time for falls in market interest rates to be passed on to borrowers.

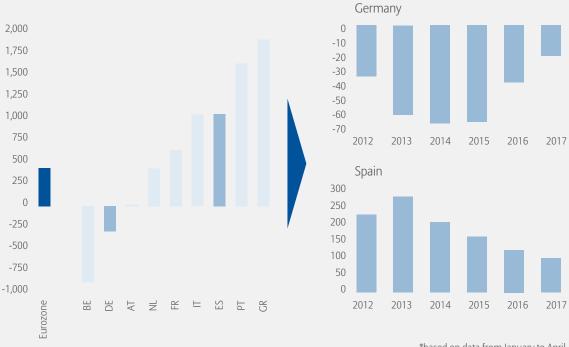
6 The "Panel on Household Finances (PHF)" is a large-scale survey of the financial situation of households conducted by Bundesbank. Deutsche Bundesbank (2016), Household wealth and finances in Germany: results of the 2014 survey, Monthly Report March 2016.

However, not all households benefit from this to the same extent. Using data from the PHF study<sup>6</sup>, it is possible to estimate the varying impact on individual income groups. This shows that higher-income households in particular are benefiting from the ECB's policy of extremely low interest rates, in both absolute and relative terms (in relation to their income). This applies principally to households between the sixth and the eighth decile of income distribution. While incomes in this group are not very high, it probably does include a high proportion of home owners with large mortgages. Looking at the size of deposits and loans, the volume of deposits in lower income groups actually exceeds the volume of loans on average, while the reverse is true in higher income groups. This reflects a relatively simple link: income is the most important criterion determining access to credit.

This leaves us with a sobering conclusion. In the (former) crisis countries, the impact of extremely low interest rates is gradually subsiding, and high-income households are increasingly benefiting from them as well. The ECB's unconventional measures are becoming less effective.

#### Different development

Direct income effect: Interest gains or losses per capita in EUR, 2012-2017\*



\*based on data from January to April. Sources: ECB, Allianz SE.

## Regional differences

# Financial assets in individual regions

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## Latin America

| Population   |
|--|
| In the analyzed countries······477 m                               |
| Analyzed countries' share of the region as a whole 76.7%           |
| Analyzed countries' share of the global population6.4%             |
| GDP  |
| In the analyzed countries ······ EUR 3,901bn                       |
| Analyzed countries' share of the region as a whole · · · · · 82.2% |
| Analyzed countries' share of global GDP······5.5%                  |
| Gross financial assets of private households                       |
| Total·····EUR 3,461bn  |
| Average·····EUR 7,250 per capita                                   |
| Share of global financial assets · · · · · · · · · 2.0%            |
|  |
| Debt of private households   |
| Total EUR 1,116bn  |
|  |

A gold-rush mood prevailed on the Latin American subcontinent, which is rich in natural resources, during the first decade of the new millennium. High world market prices for crude oil, copper and other raw materials led to rising export revenue and capital inflows in the region. China's increasing importance and its rapidly growing demand for raw materials pushed up prices, indirectly fueling the boom in Latin America. Increasing economic output and generous social welfare programs also led to growth in disposable incomes, giving households more scope for saving. Private financial assets almost quadrupled during this period, with an average growth rate of around 14% per year, and the region's share in global assets climbed from 0.7% to 1.7%.

Today, however, Latin America's "golden decade" seems to be a distant memory. Slackening growth momentum in China and falling prices on the commodities markets have plunged the region into a deep crisis. In addition, the US central bank's decision to begin phasing out its unconventional monetary policy resulted in substantial corrections on the capital markets and caused currencies to depreciate in emerging countries. Within a short space of time, the former growth star mutated into the region with the weakest economic growth. Total economic growth in the countries we analyzed (Argentina, Brazil, Chile, Colombia, Mexico and Peru) has declined steadily since 2010, dropping

to -1.0% in 2016. Consumers have tightened their belts, causing the annual growth rate in consumer spending to fall from +6.7% in 2010 to +0.4% in each of the last two years. At the same time, growth in private financial assets has slowed to an average of just under 10% per year. In the context of rising inflation, average asset growth fell in real terms from 8.5% (from 2001 to 2010) to 2.5% (from 2011 to 2016). Savings grew by almost 11% last year to nearly EUR 3.5 trillion in total. After deduction of the average inflation rate of about 10%, however, households were left with very little growth.

Optimism nevertheless seems to be returning, at least on the stock markets; the MSCI Emerging Markets Latin America grew strongly over the course of the year and closed 2016 up almost 29%. This is not least a reflection of an increase in commodity prices last year, which had a positive impact on earnings of commodities companies. Securities held by Latin American households grew at an estimated rate of just

under 12% last year to a total of almost EUR 1.6 trillion. With the exception of Mexico (+6.2%), the benchmark indices in all of the countries we analyzed achieved double-digit growth rates. Even in Brazil (+38.9%), Colombia (+18.2%) and Peru (+82.8%), the three-year downturn came to an end. However, stock exchange barometers in the three countries were still well below their respective all-time highs. While Brazil's BOVESPA was down around 13% compared with 2010, the indices in Colombia and Peru fell by as much as 34.8% and 33.4% respectively.

#### Different asset structures in individual countries

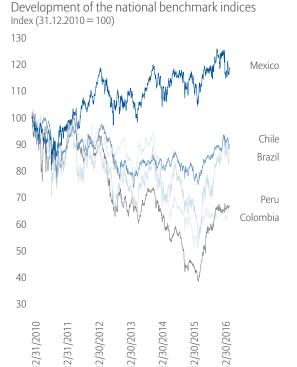
The gross domestic product of Brazil, the largest economy in Latin America, contracted by a further 3.6% in 2016 following a decline of 3.8% in the previous year. The country, which accounts for almost half of the region's economic strength, is experiencing its worst recession for one hundred years. With its commodities-heavy export economy, Brazil was hit particularly hard by plummeting prices for iron, crude oil and other raw materials. Unemployment has almost doubled in the last two years, reaching 12.0% in the last quarter of 2016. In this context, households have had to further restrict their consumer spending (-4.2%, compared with -3.9% in the previous year). The weak economy is at least bringing about a gradual reduction in the inflation rate, which in December 2015 stood at 11.3%,

#### Has the economy bottomed out?

Development of private consumption and GDP 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0 -0.5 -1.0 2016 2015 2011

Private consumer spending, y/y in %

Real GDP, y/y in %



Sources: World Bank, Thomson Reuters, Allianz SE.

its highest level since 2003; the annual average for 2016 came to 9.4%, although the rate dropped as low as 6.6% during the course of the year.

The reaction on the stock markets to the removal from office of President Rousseff last year and to her successor Michael Temer's announcement of an agreement on reforms was euphoric. Right at the top of the new government's agenda was a reform of the generous state pension system, with the aim of curbing growing national debt. Private households, which hold almost half their assets in the form of shares, funds and other equity interests, have also benefited from strong growth on the stock markets. Securities holdings grew strongly by an estimated 17%, while receivables from insurance companies and pension funds also enjoyed double-digit growth in the stock markets' wake. In contrast, bank deposits more or less stagnated for the second consecutive year, reflecting the ongoing economic crisis. Brazilians' total savings nevertheless rose by about 12% to approximately EUR 1.7 trillion, representing about half of all assets in the region.

Mexico, the region's second-largest country in terms of economic power, accounted for a quarter of private financial assets in Latin America at the end of 2016. Mexican households are actually investing over 60% of their savings in securities, holdings of which grew by 5.6% last year. However, there has been a shift in the portfolio towards secure investments such as bank deposits and insurance policies and pensions in the last few years. Before the outbreak of the global financial crisis, securities accounted for about 73% of the portfolio. Growth in bank deposits was the strongest of all the various asset classes in 2016, increasing by about 13%. Total assets of Mexican households rose by 7.6% yearon-year.

Households in Argentina, Chile, Colombia and Peru shared the remaining quarter of the region's financial assets and accounted for just under 30% of the population of the countries we analyzed. Asset growth in these countries in 2016 ranged from 5.9% in Chile to over 50% in Argentina. Although Argentina's President Macri, who was elected in 2015, has already implemented market reforms, the economy is suffering due to the weakness of Brazil, the country's most important trading partner. Moreover, the removal of exchange rate restrictions on the peso led to massive losses in value, making imports more expensive and driving already soaring inflation rates up even further. The average inflation rate for 2016 was 38%, which is gnawing at incomes and private savings. Many households are seeking refuge in safe foreign currencies in a bid to preserve the value of their assets. Bank deposits and cash are estimated to represent four-fifths of the portfolio. In contrast, private retirement

provisions in the form of life insurance policies or pension funds barely exist any more, after private pension funds were nationalized in 2008. The share of this asset class in private financial assets has since declined from around 11% to an estimated level of about 3%.

Insurance policies and pensions predominate in Chile and Colombia, representing 54% and 59% respectively of household asset portfolios. The Chilean pension insurance system, which was changed from a contribution-based system to a private, capital-funded system in 1980 under the Pinochet regime, has served as a template for many countries worldwide. Receivables of households from insurance companies and pension funds rose by almost 8% in Chile and around 14% in Colombia last year.

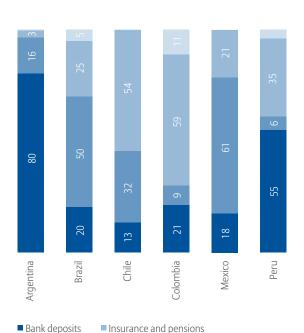
#### Slowdown in momentum of debt growth

However, the "golden decade" did not just lead to a rise in private household assets, but also in debts, which grew at the same pace as savings during this period, on average at about 14% per year. While asset growth began to slow considerably from 2011 onwards, however, debt growth accelerated noticeably again, reaching an average of almost 20% from 2011 to 2013. Only in the last three years has a slowdown in momentum become apparent on the liabilities side of the asset balance sheet. Growth in the outstanding debt volume dropped to 6.5%

#### Asset structure by countries

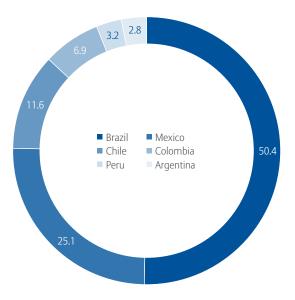
Securities

Asset classes in % of gross financial assets, 2016



Other

Share of regional financial assets by country, 2016 in %



Sources: National Central Banks and Statistical Offices, Allianz SE.

in 2016, compared with around 9% in the previous year. Total household debt in Latin America came to around EUR 1.1 trillion at the end of last year. The relative shares of individual countries are similar to those for assets, with more than three-quarters of the region's debt concentrated in Brazilian and Mexican households.

The region's share of the global debt burden has increased from 1.1% to 2.7% in the last decade. As its liabilities grew faster during this period than its nominal economic output (average growth of +9.9% per year), the debt ratio, i.e. the ratio of debts to GDP, increased from 20.7% in 2006 to 28.6% last year. On the whole, however, the region is still at a normal level for emerging markets; the average ratio of debts to economic output in emerging countries was nearly 35%

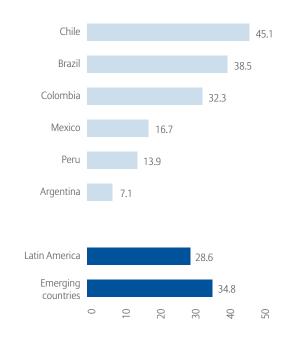
at the end of 2016. Nevertheless, the differences between individual countries are considerable. While the ratio in Argentina was only around 7%, Chile led the field with a ratio of about 45%. Chilean households also topped the regional rankings in per capita terms, with average debt of EUR 5,990. The lowest per capita debt was in Argentina, at an estimated EUR 760. The regional average was EUR 2,340 per capita, putting Latin America well above average for emerging markets (EUR 1,830).

#### Pace of debt growth easing

Debt development since 2006



Debt ratio by country 2016, in %



- Debt ratio, in %
- Debt growth y/y, in %

 $Sources: National\ Central\ Banks\ and\ Statistical\ Offices, Thomson\ Reuters, Allianz\ SE.$ 

## A growing wealth middle class – inequality remains a problem

Net per capita financial assets, i.e. all savings minus debt, came to a regional average of EUR 4,910 last year. Chile is the only country in Latin America in which average per capita household assets surpassed the middle wealth country (MWC) threshold of EUR 7,700. With average assets of EUR 16,460 per capita, Chilean households were only one place behind Portugal and 25th in the global rankings. Even Mexico and Brazil, where households had average per capita assets of EUR 5,650 and EUR 4,980 respectively at the end of 2016, are likely to take some years to join the ranks of the MWCs. If net per capita financial assets continue to grow on average as they have done for the last decade (around 7% in Mexico and about 12% in Brazil annually), Mexico will not exceed the current threshold until 2021, while Brazil will not pass it until 2020. However, this threshold will have risen further by then, in line with global asset development. These two countries came 40th and 41st in an international comparison and, together with the rest of the countries in Latin America, they were in the bottom quarter of the country rankings.

The proportion of the region's population that belongs to the "middle wealth category" in a global comparison (net per capita financial assets of between EUR 7,700 and EUR 45,900) was around 13% at the end of 2016. That means that approximately 64 million Latin Americans belong to the global wealth middle class, compared with an estimated total of about 29 million at the start of the millennium. Just under 2 million people had high net financial assets (more than EUR 45,900 per capita) by global standards, although these individuals accounted for only a fraction of the overall population (0.4%) in 2016.

More than 86% of the population, and thus the majority, still belongs to the lower wealth class. This means that almost 412 million Latin Americans had average assets of less than EUR 7,700. It is also important to remember, however, that currency losses make it more difficult for these countries to exceed the threshold values, which are calculated in euros.

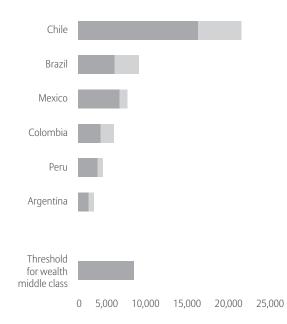
7 United Nations
Development
Program (2016):
Multidimensional
progress: well-being
beyond income.
Regional Human
Development
Report for Latin
America and the
Caribbean.

One of the biggest challenges facing Latin America remains the quest to achieve a better distribution of income and wealth within societies. Both in a global comparison and measured against emerging economies as a whole, incomes and wealth in Latin America are much more highly concentrated. The richest 20% in the region receive around 53% of total income on average and hold almost 77% of total assets. This is compared with ratios of just under 47% and around 72% respectively in emerging markets as a whole, and average figures of 42% and 70% respectively in a global comparison. Despite persistent inequality in incomes and assets, signifi-

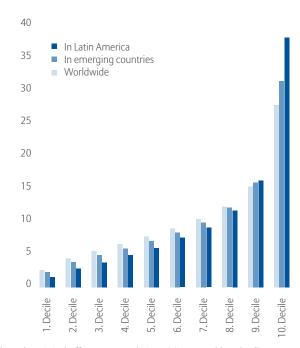
cant progress has been made in the fight against poverty since the early years of the new millennium. The proportion of the population living below the national poverty line has fallen to less than half of its previous levels in Brazil and Peru, for example, dropping to 7.4% (2014) and 21.8% (2015) respectively. In Colombia as well, the proportion of the population living in poverty has been slashed from almost 50% to just under 28% in 2015. Nevertheless, the United Nations Development Programme (UNDP) assumes in a study conducted in 20166 that the number of people living in poverty in Latin America and the Caribbean is increasing again for the first time in more than ten years. With economic growth on the wane, many people are at greater risk of falling back into the poverty trap.

#### Enormous gap between rich and poor

Net financial assets and liabilities per capita 2016, in EUR



Average income distribution by comparison



Sources: National Central Banks and Statistical Offices, UN Population Division, World Bank, Allianz SE.

Net financial assets

Liabilities



# North America

| Population   |
|--|
| Total  |
| Share of the global population $\cdots \cdots 4.9\%$ |
|  |
| GDP  |
| Total · · · · · EUR 19,039bn                         |
| Share of global GDP······ 26.7%                      |
|  |
| Gross financial assets of private households         |
| Total·····EUR 76,087bn                               |
| Average EUR 212,260 per capita                       |
| Share of global financial assets 45.0%               |
|  |
| Debt of private households                           |
| Total·····EUR 15,816bn                               |
| Average ·····EUR 44,120 per capita                   |
| As % of GDP 83.1%                                    |

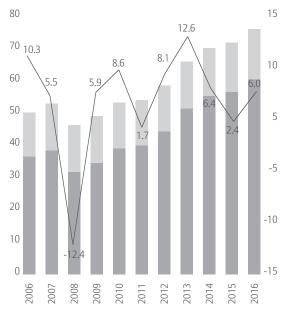
Private households in the US and Canada held a total of around EUR 76 trillion, or 45%, of global financial assets at the end of 2016. North America thus remains the richest region on the planet. Following a slowdown in growth in the two previous years, asset development accelerated again last year. The growth rate in the US more than doubled from 2.3% in 2015 to 5.9%. In Canada, private savings grew by 7.6%, which was also a noticeably faster rate than in 2015 (+4.2%). Growth for the region as a whole came to 6.0%, putting North America above the average for industrialized countries (+5.2%). The increase in assets was driven by all three of the major

asset classes, with bank deposits and securities recording the highest growth rates of 6.6% and 7.0% respectively.

However, securities as an asset class struggled with losses in the first quarter. Weak economic data from China and the slump in oil prices led to uncertainty on the markets; the S&P 500 plummeted by 5.1% in January, while the Canadian benchmark index also lost 1.4%. This disappointing start to the year had a negative impact on US household assets. Assets held in the form of shares, investment fund units and other equity interests declined by EUR 145 billion or 0.4% in the first three months of the year compared with the previous quarter. After things had calmed down on the capital markets, the unexpected Brexit vote at the end of June caused

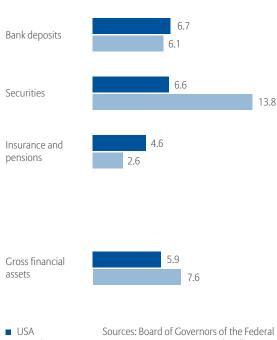
#### Growth of financial assets increased again in 2016

Development of financial assets and liabilities in North America



- Net financial assets, in EUR tn (lhs)
- Liabilities, in EUR tn (lhs)
- Gross financial assets, y/y in % (rhs)

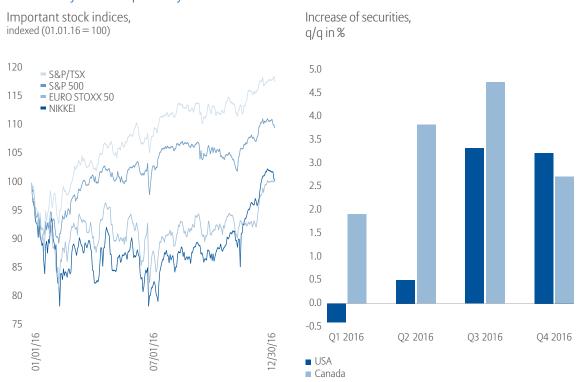
#### Growth by asset classes, 2016/2015 in %



Canada Reserve System, Statistics Canada, Allianz SE. a further fall in prices. In net terms, however, securities held by US citizens actually grew slightly by 0.5% in the second quarter. Prices caught up considerably in the second half of the year. Donald Trump's unexpected victory in the US presidential election caused only a brief dip in the markets, while his promises of tax cuts and investment in infrastructure triggered a real rally in share prices in the last few weeks of the year. In total, securities held by private US households rose by almost EUR 2.3 trillion, or EUR 7,130 per capita, between July and December. The S&P

500 closed the year up 9.5%. In Canada, the ups and downs of the financial markets appeared to have no effect on privately owned securities, which rose continuously over the course of the year, with total holdings increasing by 13.8% compared with 2015. Following a very weak performance in 2015, when it declined by 11.1%, the leading Canadian index rose by 17.5% last year.

# Year-end rally after Trump's victory



Sources: Board of Governors of the Federal Reserve System, Thomson Reuters, Statistics Canada, Allianz SE.

# A "wait-and-see attitude" with regard to investment

US households have traditionally had a much larger risk appetite than their neighbors in Canada, with over 52% of their asset portfolios invested in securities. Nevertheless, around 39% of financial assets in Canada were held in the form of shares, investment funds or other equity interests at the end of 2016. Canadian households were thus on a par with the average for industrialized nations of approximately 38%. When it came to investment of "fresh" savings, however, households in both countries showed a preference for cash and bank deposits last year. The bulk of savings went into this asset class in 2016. In per capita terms, inflows of funds came to EUR 1,910 in the US and EUR 1,620 in Canada; that means that total holdings grew by 6.7% and 6.1% respectively last year. In contrast, investors disposed of securities in net terms, albeit to a relatively small extent, selling securities worth an average of EUR 190 per capita in the US and EUR 90 per capita in Canada. Growth in securities portfolios therefore came exclusively from value gains of an average of EUR 7,410 and EUR 6,200 per capita respectively.

This strong liquidity preference reflects the ongoing mood of uncertainty among investors. Low interest rates, among other factors, are also prompting more and more people to favor short-term over long-term investments. Inflows of funds into bank deposits over the last five years have been around one-third higher on average than in the years preceding the crisis. However, this asset class continued to play a relatively minor role in terms of total financial assets in both countries, accounting for 13.5% and 21.4% of financial assets respectively at the end of 2016.

The second most popular type of investment in North America, insurance policies and pensions, recorded robust growth of 4.6% in the US. However, there has been a tendency over the last few years towards a decline in inflows of funds, which fell by 14% to EUR 1,250 per capita in 2016; this no doubt also reflects demographic shifts, with more and more of the baby boomer generation leaving the labor market. Savers nevertheless benefited from indirect participation in the capital market, particularly with regard to their pension entitlements. Value gains came to an average of EUR 1,800 per capita in 2016. Inflows of funds fell even more sharply year-onyear in Canada than in the US, dropping from an average of EUR 1,200 to EUR 290 per capita.

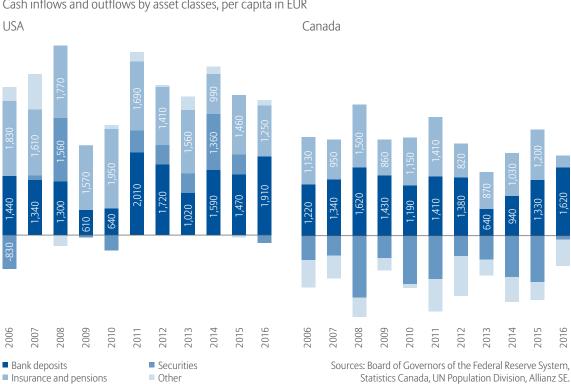
Thanks to value gains of an average of EUR 890, the portfolio nevertheless grew by 2.6%. Insurance and pension assets are a key component of household savings in both countries, accounting for around 31% of the total asset portfolio in the US at the end of 2016, and almost 37% of the Canadian portfolio.

# Americans correct the debt excesses of the past...

In a regional comparison, North America not only claimed the largest share of global financial assets; almost 39% of the world's debt burden more than in any other region – was also sitting on the other side of the Atlantic. This share has, however, been falling steadily in recent years. In 2007, it still stood at almost 48%. For one, households in emerging markets have been accumulating increasing liabilities as their financial sectors continue to develop. For another, the trend also reflects the debt discipline displayed by US households since the outbreak of the financial crisis.

# "Wait-and-see-Attitude": Bank deposits with high inflows

Cash inflows and outflows by asset classes, per capita in EUR



The years before the crisis erupted were characterized by what was, at times, double-digit growth in the US personal debt burden, pushing the ratio of liabilities to disposable incomes up from 99.4% in 2000 to a historic high of 137.3% seven years later. In 2008, households started to borrow less in an attempt to tidy up their asset balance sheets. In the period leading up to 2011 they reduced their liabilities, shaving about 21 percentage points off the debt ratio in the space of these four years alone, which was whittled down to 116.4% of disposable income. Although debt growth has moved back into positive territory since 2012, it has remained below the level of growth in disposable incomes (+3.5% per year on average) at an average of 2.0% per year, thanks to the improved situation on the labor market. This means that the ratio of liabilities to disposable incomes has fallen by a further 8.3 percentage points to 107.8%. In per capita terms, liabilities edged up by 2.4% last year to an average of EUR 44,480, putting them at about the same level as in 2006 (average of EUR 44,820 per capita). A combination of historically low interest rates and a moderate increase in both employment and incomes has so far made it easier for many households to pay back their debt. The debt service ratio, i.e. the ratio of capital and interest repayments to disposable income, has fallen to an all-time low in recent years, coming in at 10.0% at the end of 2016; the all-time high over

the past 30 years (13.2%) was reached at the end of 2007. The delinquency rate is also on the way down and fell to 4.8% in the last quarter of 2016, less than half the peak of 11.9% that it reached at the end of 2009. This means that it has almost returned to its pre-crisis level of 4.7% (end of 2006). All in all, the household sector has corrected the excessive debt behavior it displayed in the boom years and pushed its liabilities back down to the historical average.

# ... while debts in Canada are reaching dangerous levels

The debt situation in Canada is much more precarious than in the US. The outbreak of the financial crisis at least helped to curb the country's debt growth, bringing the average annual growth rate down to just under 6%, compared with around 9% in the years prior to the crisis. However, liabilities in Canada rose by 5.1% last year compared with 2015, which was not only much faster growth than in the US (+3.2%), but also faster than growth in disposable incomes (+3.7%). In relation to disposable incomes, the debt ratio has been constantly on the rise, climbing from 107.4% in 2000 to 168.3% last year – putting it about 60 percentage points ahead of the

US level. Per capita debt is climbing to new record highs year in, year out, and came to an average of EUR 40,920 at the end of 2016. This means that the risk of the Canadian financial system running into difficulties due to the growing debt burden in the household sector has increased significantly over the last few years. This is due not only to the absolute debt level, but also to the way in which debt is distributed: liabilities are becoming increasingly concentrated on highly-indebted households whose ability to service their loans in the event of an economic slump could be at particular risk. The situation is only exacerbated further by the surge in house prices in the greater Vancouver and Toronto regions. Mortgage loan growth is rising in tandem with house prices, once again increasing the proportion of highly-indebted households. In addition, more and more investors from emerging countries, especially China, are discovering this market in their search for safe investment opportunities for their savings. The city of Vancouver has responded by introducing a tax of 15% on the price of houses purchased by foreign investors. Although the property market in Vancouver has cooled down slightly, demand has shifted to other cities such as Victoria and Toronto, where house price inflation is over 30%. In its latest report on the stability of the financial system, the Bank of Canada describes the phenomenon of "extrapolative expectations". It says that the recent particularly strong growth in house prices in the greater Toronto area can no longer be explained by fundamental data alone; instead buyers are acquiring property partly because they are expecting – or fearing – a further rise in prices. One indication of this, according to the central bank, is that prices have risen much faster than rents in recent years and that rental returns have actually been negative after deduction of costs.

The Canadian central bank has for a long time been observing the growing debt burden of the household sector with great concern, and has described it as one of the biggest risks to the financial system. The regulator has therefore been attempting for some time to counteract this with macroprudential measures. In February 2016, the financial supervisory authority set out more stringent capital requirements for loans backed by a residential property, the aim being to restrict lending to households with high credit ratings. Furthermore, the federal

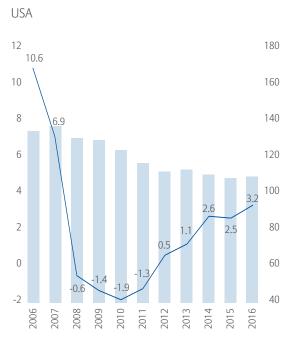
government introduced new regulations last fall on financing for housing construction, as part of which the ratio of debt service payments to income will be limited to a maximum permissible level when loans are granted. The Canadian central bank's decision to raise interest rates in July this year – for the first time in seven years – may also help to cool the overheated property market to some extent. Nevertheless, Canada urgently needs to find its way back to a solid and sustainable asset situation.

#### The US has the richest households worldwide

North America is not only the region with the highest proportion of the world's financial assets, it is also the region with the highest per capita wealth. After subtracting liabilities, the average North American had assets worth EUR 168,130 at the end of last year; by way of comparison, average per capita assets in Western Europe came to "only" EUR 58,910. Even if assets are distributed very unequally at national level, particularly in the US, a great many North Americans are very well off by international standards: 41% of the North American population has assets averaging more than EUR 45,900 per capita to fall back on, making them members of the wealth upper class in a global comparison. In global terms, more than a quarter of people classed as high wealth individuals live in North America.

# Debt burden in Canada dangerously high

Debt ratio and growth



- Annual debt growth (lhs)
- Debt as % of available income (rhs)



Sources: Board of Governors of the Federal Reserve System, Statistics Canada, Thomson Reuters, Allianz SE.

If we compare the two neighboring countries, households in the US have average net assets of EUR 177,210 per capita, making them considerably more wealthy than Canadian households (EUR 87,580 per capita). The absolute gap between the two countries has actually widened noticeably over the last decade. While US citizens had almost EUR 63,000 more in net financial assets than Canadians in 2006, the difference in wealth had grown to almost EUR 90,000 by the end of last year. The situation is reversed when it comes to liabilities. Since the end of 2006, the gap between the US and Canada in terms of per capita debt has contracted from around EUR 18,000 to only about EUR 3,500. This reflects the different paths taken by the two countries since the crisis.

In the global rankings, US citizens overtook the Swiss for the first time and were in first place last year. As well as their newly discovered debt discipline, they benefited from a slight appreciation of the US dollar. The Canadians also moved up one place last year thanks to strong asset growth and came in ninth in the rankings, behind the Netherlands and ahead of New Zealand.

The US-Canada asset gap is rising, the debt gap is shrinking

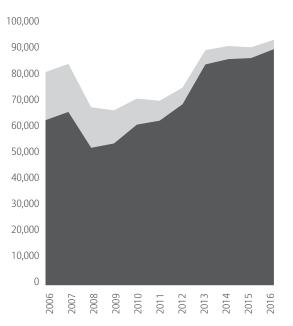
Net financial assets and liabilities per capita, in EUR

225,000 200,000 175,000 150,000 125,000 100,000 75,000 50,000 25,000 0 2006 2016 2006 2016 USA Canada

 Net financial assets ■ Net financial assets per capita Liabilities per capita

Liabilities

Difference between USA and Canada



Sources: Board of Governors of the Federal Reserve System, Statistics Canada, UN Population Division, Allianz SE.



# Western Europe

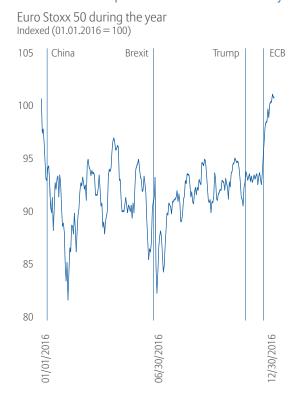
| Population                                   |
|--|
| Total · · · · · · · · · 416 m                |
| Share of the global population······5.7%     |
|  |
| GDP  |
| Total EUR 14,415bn                           |
| Share of global GDP····· 21.3%               |
|  |
| Gross financial assets of private households |
| Total EUR 35,324bn                           |
| Average·····EUR 84,860 per capita            |
| Share of global financial assets             |
|  |
| Debt of private households                   |
| Total EUR 10,804bn                           |
|  |
|  |
|  |

Financial assets of households in Western Europe grew robustly by 4.7% to a total of EUR 35.3 trillion during 2016. Although this means that asset growth in Europe accelerated compared with the previous year (+2.7%), development was less dynamic than in the other "richer" regions of North America (+6.0%) and Oceania (+7.6%).

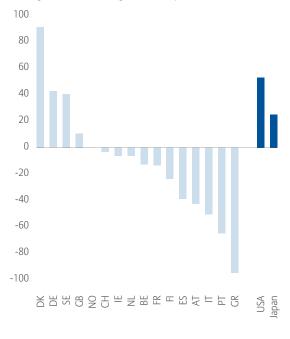
Below-average growth compared with other industrialized nations was due to weak growth in securities holdings, which increased by only 0.6%. Economic concerns about China, low oil prices and, not least, the British vote to leave the European Union caused share prices to slump in the first half of the year. Despite intermittent recovery phases, the Euro Stoxx 50 was down 12.3% at the end of the first half of the year; 2016 seemed to be turning into a lost year for the stock markets. However, share prices recovered relatively quickly from the Brexit vote and also coped surprisingly well with the election of Donald Trump as US president. The

European Central Bank (ECB) then made the end of the year even sweeter for investors when its president, Mario Draghi, announced in early December that the bond-buying program would be extended until at least December 2017. Further monetary policy easing drove up asset prices, allowing the leading European index to make up ground. It closed the year up slightly by 0.7%. By way of comparison, the S&P 500 climbed almost 10% in 2016. Europe's stock exchange barometer is still a long way off a return to its pre-crisis level, however; it was down around 25% compared with 2007. Apart from Germany's stock index, the DAX (+42.3%), only three of the 16 western European countries in our analysis had leading indices that were above pre-crisis levels at the end of last year, and none of them are members of the eurozone. These were Denmark (+90.5%), Sweden (+40.3%) and the UK (+10.6%).

#### Positive Euro Stoxx performance thanks to monetary easing



Stock markets mostly below pre-crisis level % change in national leading indices compared with 2007



Sources: Thomson Reuters, Allianz SE.

Compared with North America, where households invest over half of their financial assets in securities, this asset class tends to be under-represented in Western Europe, where it accounts for just under 27% of the portfolio. So far there is no sign of a change in investment behavior, despite the zero interest rate policy. This asset class recorded net outflows of funds for the fifth consecutive year, with households selling securities worth around EUR 91 billion in net terms in 2016.8 Savers have withdrawn about EUR 355 billion in total from this asset class since 2012. North Americans invested over EUR 700 billion of fresh money in shares and funds during the same period.

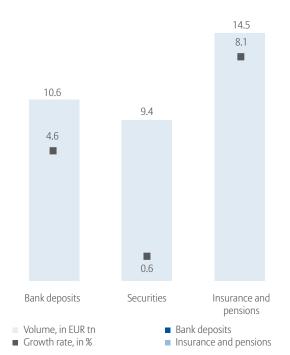
The dominant pillar in the western European asset portfolio remains insurance and pensions. All in all, receivables from insurance

companies and pension institutions came to almost EUR 14.5 trillion, up by 8.1% year-on-year. Since the outbreak of the financial crisis, households have been plowing almost 60% of their "fresh" savings into this asset class on average, pushing its share of total financial assets up by almost seven percentage points to just under 41% by the end of 2016. This development is likely due first to growing awareness of the need to make more independent provisions for old age. The significance of state pensions, which have made up the lion's share of income in old age in most of these countries to date, is on the wane due to tight budgets and pension reforms that are intended to cushion the effects of demographic change. Second, a shift in the overall asset structure had already started to emerge back at the turn of the millennium. In the aftermath of the bursting of the dotcom bubble and the outbreak of the financial crisis, many investors

8 Not including Swiss households.

# Savers prefer safe forms of investment

Volume and growth of asset classes, 2016



Inflows and outflows by asset classes, in EUR bn



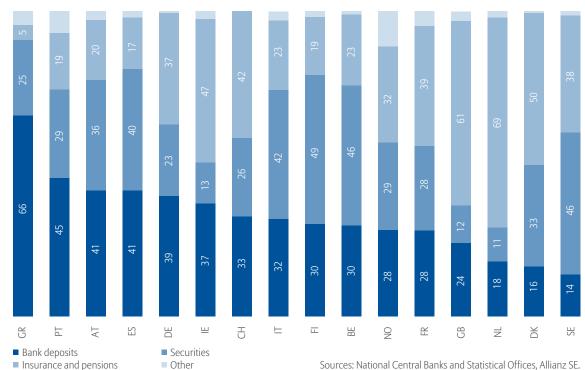
seem to have lost faith in shares and now prefer secure investments. Securities still accounted for almost 39% of the asset portfolio in 2000.

Bank deposits also benefited from these concerns about security. Despite the current zero interest rate policy, households still hold 30% of their savings in the form of cash and demand, term and savings deposits. The increase of 4.6% in the portfolio compared with 2015 was primarily due to substantial inflows of funds, as in previous years. Inflows grew by almost 50% year-on-year in 2016 and totaled EUR 425 billion, the highest level since 2008. That meant that bank deposits were once again the asset class that experienced the highest inflows of funds in 2016. Leaving Greece aside, there is no sign of the money pumped into bank deposits by those seeking a safe haven when the financial crisis hit being pulled back out.

If we compare the individual countries, no uniform pattern emerges as far as the asset structure is concerned. The proportion of securities assets in the overall asset portfolio ranges from 11.1% in the Netherlands to 48.9% in Finland. Bank deposits dominate asset portfolios of households in Greece (65.8%) and Portugal (45.4%), not purely due to a conscious investment decision, as these shares were much lower before the outbreak of the financial crisis (52.2% in Greece and 38.6% in Portugal). The specific reason behind the shift in the asset structure in these countries is instead securities losses.

# Differing preferences

Asset classes as % of gross financial assets, 2016



In a regional comparison, the northern countries of Western Europe recorded above-average asset growth in 2016. UK households came out on top, with growth of 8.0% in savings; in particular, growth was driven by the asset class of insurance policies and pensions, which accounted for 6.1 percentage points of overall growth. The Brexit vote has obviously not yet had any impact on private assets. The UK was followed in second to fourth place by Sweden (+7.4%), the Netherlands (+6.3%) and Norway (+6.0%). While the two Scandinavian countries recorded robust growth across all asset classes, the increase in the Netherlands was mainly due to strong growth in insurance and pension assets. As in the UK, company pension schemes are a key component of household savings there. This asset class accounted for just under 61% of the asset portfolio in the UK and almost 69% of the asset portfolio in the Netherlands at the end of 2016. The volume of assets also grew faster

than the western European average in France (+5.5%) and Finland (+5.2%). The main driving forces behind this were insurance and pension assets in France and securities holdings in Finland. Belgium and Germany only just exceeded the regional average with growth of 4.8% and 4.7% respectively. Despite extremely low interest rates, asset growth in Germany came largely from the bank deposits asset class – thanks to German enthusiasm for savings.

Countries in the south of Western Europe came last in the region. While growth rates in Spain (+1.4%), Portugal (+1.3%) and Italy (+0.3%) were still positive, statistics for private financial assets in Greece fell by 1.8%. Italian households, which hold above-average investments in securities compared with other western European countries, felt the effects of the weak performance of their country's stock market last year. The leading Italian index lost around 10% over the course of the year, while household securities portfolios declined by 5.4%. Greeks continued to withdraw savings from their bank accounts (-2.4%), while their securities holdings also dropped by 0.9%. According to official statistics, total Greek financial assets at the end of 2016 were down by around 25% on the pre-crisis high. In all other western European countries, however, households were better

placed than they were back in 2007. The top of the rankings is home to Sweden with growth of 82.3%, followed by Norway (+69.4%) and the Netherlands (+65.5%).

#### Credit growth increases again slightly

As at global level, the outbreak of the financial crisis also marked a reversal of the trend in debt dynamics in Western Europe. Annual rates of credit growth declined sharply from a peak of +8.8% in 2006 to zero growth six years later. Growth has increased again slightly since then, although it has remained at a lower level. The rate of growth in liabilities rose from 1.8% in 2014 and 2015 to 2.6% in 2016. The ECB's plan to stimulate private demand for credit with its unconventional monetary policy thus seems to be having a (slight) impact. Despite this slight

acceleration, however, debts have still risen noticeably more slowly than assets over the last four years. While liabilities have grown by an average of 1.6% per year, savings have achieved average annual growth rates of 4.5%. The ratio of household debts to financial assets has fallen continuously from a record high of 37.6% in 2008 to 30.6%. All in all, outstanding loans of western European households came to EUR 10.8 trillion at the end of 2016, which corresponds to 26.6% of the global debt burden.

In line with asset development last year, the pace of debt growth also revealed a rough split between the north and south of Europe. The biggest increase was seen among Swedish households, whose liabilities rose by 6.6%.

# Growth gap between north and south



Securities

Other

Bank depositsInsurance and pensions



Sources: National Central Banks and Statistical Offices, Allianz SE.

Three other countries from the northern part of the region also recorded above-average growth in debts: these were Norway (+5.6%), Finland (+5.1%) and the UK (+4.6%). Further south, in German-speaking countries, the outstanding debt volume rose by 4.0% in Austria, 3.0% in Germany and 2.7% in Switzerland. Liabilities rose more slowly than the western European average in Italy (+1.1%) and the Netherlands (+0.9%). While debts stagnated in Portugal last year, the central banks of the other two southern European countries, Spain and Greece, actually reported a further reduction in debts of 1.5% and 6.4% respectively. Irish households also continued with their consolidation strategy last year, reducing their liabilities by 2.4%. Since reaching a record high in 2008, private debt in Ireland has therefore fallen by more than a quarter.

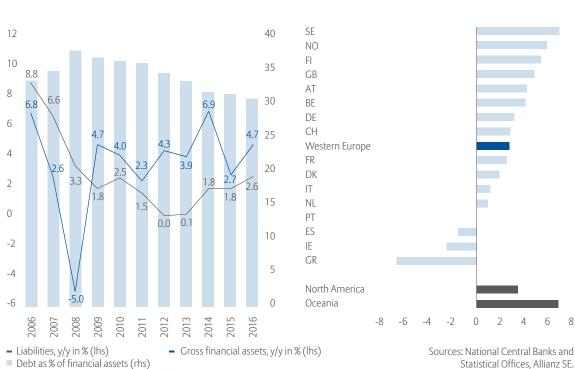
# Swiss households in first place not only with regard to debt...

A look at debt levels shows significant differences between individual countries. Per capita debt, for example, ranges from an average of EUR 10,220 in Greece to EUR 93,120 in Switzerland. The gap between these two countries has widened from around EUR 65,000 to almost EUR 83.000 since the outbreak of the crisis. While Greek households have corrected their "excessive debts" from the years prior to the crisis and reduced their liabilities by an average of 0.8% per year, the outstanding debt volume of Swiss households has continued to grow by an average of 3.4% per year. However, debt reduction in Greece is not due solely to a drop in demand and more stringent lending guidelines. Some households were simply no longer able to repay their

# Pace of debt growth up again – but not as high as asset growth



Debt growth by country 2016/2015, in %



loans, and creditors have been forced to write off their receivables. Apart from Switzerland, the three countries with the highest private per capita debt levels included the two Scandinavian countries of Norway (EUR 69,560) and Denmark (EUR 64,900); all three had significantly higher debt levels than the US (EUR 44,480 per capita). The two heavyweights, Germany and France, in which almost 30% of the region's debt burden was concentrated at the end of 2016, came in at the lower end of the middle of the range, with average private per capita debts of EUR 22,800 and EUR 20,590 respectively. Together with Greece, households in the other southern European countries of Spain (EUR 16,610), Portugal (EUR 15,890) and Italy (EUR 15,600) brought up the rear.

However, it's not just the absolute debt figures, but also an analysis of relative levels of debt that reveals significant differences between individual countries. If we look at the ratio of private liabilities to nominal economic output, those households with the highest per capita debt come out on top, which is not surprising. The Danes topped the rankings in 2016 with a ratio of 133.7%, well ahead of Switzerland (128.8%), although the Danish debt ratio has fallen by 16 percentage points since the end of

2009. The ratio in the Netherlands (120.7%) and Norway (106.6%) was also well above the 100% mark. Austria has had the lowest ratio for years; at 52.8%, the debt ratio there was almost 81 percentage points lower than in Denmark. However, the gap between Austria and Germany, which last year had the second-lowest ratio in the region, is constantly narrowing and has shrunk from 12.4 percentage points in 2006 to just one percentage point.

The ratio of liabilities to gross financial assets varies less widely, with around 54 percentage points between Belgium, which had the lowest ratio of 20.2% at the end of 2016, and Norway, which was in first place with a ratio of 74.3%. It is noticeable here that, with the exception of Italy (22.2%), all the euro crisis countries of Greece (44.9%), Portugal (43.3%), Ireland (42.1%) and Spain (36.8%) exceeded the regional average of 30.6%, in some cases significantly. This shows once again that debts remain in crisis periods, while assets may suffer losses.

#### ... but also in terms of net assets

Swiss households have the highest net per capita financial assets in Western Europe with an average of EUR 175,720, well ahead of Sweden in second place (EUR 95,050). In a worldwide comparison, however, Switzerland, which traditionally tops not only the regional but also the

global rankings of the richest households, was relegated to second place last year by the US (EUR 177,210). As well as the systematic restructuring of their balance sheets, the Americans benefited last year from the strength of the US dollar against the euro.

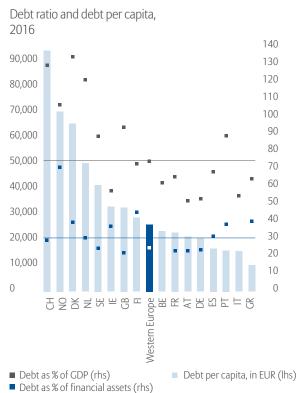
Along with Switzerland and Sweden, only two other western European countries ranked among the top 10 places for the richest households worldwide: Belgium (EUR 92,080) and the Netherlands (EUR 87,980). Out of a total of 16 countries in the region, six are ranked among the MWCs.<sup>9</sup> Also falling into this category, in addition to the crisis-ridden southern European countries of Greece, Portugal and Spain,

were Finland and Norway, as was Ireland – albeit by the narrowest conceivable margin (EUR 45,100).

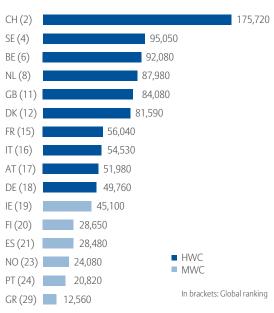
As far as their net financial assets are concerned, western Europeans are spread evenly across all three asset classes. Almost 34%, or 140 million out of the 416 million people who live in this region, had average financial assets, after deductions for any liabilities, of at least EUR 45,900 at the end of last year, putting them in the wealth upper class in a global context. Almost three-quarters of these people live in the five largest economies in the region: Germany, France, the UK, Italy and Spain. Last year, the lowest wealth class included 138 million western Europeans (33%) whose total savings came in at less than EUR 7,700 per capita on average. This meant that one-third of the population formed part of the wealth middle class last year.

9 Middle Wealth Countries. Average net per capita financial assets in these countries ranged from EUR 7,700 to EUR 45,900 in 2016.

#### Liabilities and financial assets the highest in Switzerland



Ranking by net financial assets per capita in 2016, in EUR



Sources: National Central Banks and Statistical Offices, Thomson, Reuters, UN Population Division, Allianz SE.

# Rich Germany, poor Germany?

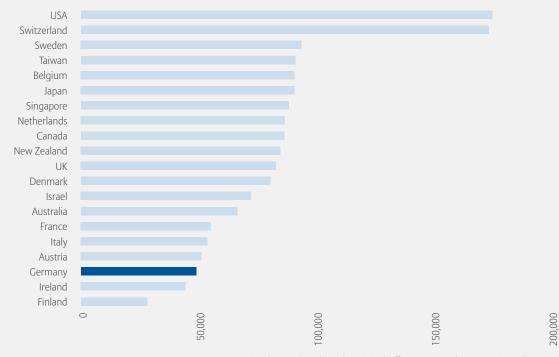
Germany has for years been stuck in 18th place in our global rankings (net per capita financial assets). This is rather a disappointing performance in view of Germany's economic strength. Not only are Switzerland and the US well ahead of Germany, but also many neighboring European countries, including Austria, Italy and France.

There are two main reasons that are frequently cited to explain Germans' relatively low levels of financial assets: the country's delayed reunification, and the fact that state pension entitlements were relatively high in the past, making the establishment of capital-funded company and private retirement provisions seem unnecessary before the pension reform.

Germany's delayed reunification meant that almost one-fifth of the population was for decades robbed of the opportunity to build up private assets. The result is that, even 25 years after reunification, financial assets in eastern Germany are only half as high as in the west of the country on average. If we took only western Germany into account in our rankings, the average per capita figures would be around 10% to 15% higher. Germany would thus overtake Austria and Italy and would catch up with France (15th place). However, other neighboring countries such as Denmark and the Netherlands would remain out of reach.

#### Germany comes in 18th in the global ranking

Net financial assets per capita, in EUR



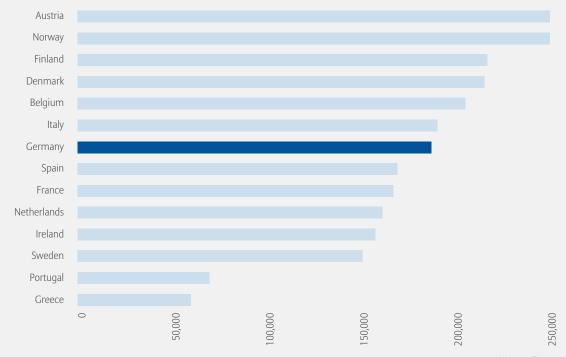
Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE.

Does this change if state pension entitlements are included in calculations of private financial assets? Pension rights do not of course constitute assets in the traditional sense, as they are not capital protected under private law – which could, for example, be sold at any time. Nevertheless, many savers (at least in the past) may have been less ambitious in building up their assets, in the assumption that they could later rely on a state pension. There would thus be a correlation between high state pension entitlements and lower financial assets.

State pension rights do not just exist in Germany, of course. We have therefore roughly calculated the current cash value of future pension payments in various European countries. We limited our calculations to a typical saver aged 40, with average income, who will draw a pension for 20 years from the age of 65. These assumptions were identical for all the countries we analyzed. We made no further distinctions in terms of future developments in growth and inflation (and set both these variables to zero, for the sake of simplicity); the interest rate (2%) was also the same for all countries. The only variables included in the calculation were therefore the current level of income and the current structure of the pension system, which determines pension levels.

#### Germany average on a European scale

Average present value of public pensions, in EUR



Sources: EU Commission, Allianz SE.

Two aspects in particular stand out in this simple calculation. The cash values of pension entitlements are generally considerably higher than actual financial assets, and there are huge differences between the countries we analyzed here, even between countries with similar income levels, such as Austria and Sweden. This reflects significant differences in the structure of pension systems.

Germany is mid-table in Europe with regard to state pension entitlements. The explanation that financial assets are relatively low because entitlements under the state pension system are assumed to be very high is therefore only partly true. The "wealth gap" compared with the Netherlands and Sweden, for example, becomes much smaller if we include the notional pension entitlements. Germany would also catch up with France; average German savers would actually be "richer" than their French counterparts. On the other hand, however, there are countries such as Austria, Denmark and Belgium, where financial assets are already higher and state pension systems are simultaneously more generous. If the cash values of state pensions were simply added to net financial assets, Austrians would top the rankings in Europe.

Such calculations on the basis of "standard" savers must of course be interpreted with a certain amount of skepticism. However, they do clearly highlight one thing: the explanations that are usually given for Germany's relatively low financial assets are only partly convincing. We are therefore left with a conclusion that is not particularly positive from a German viewpoint, which is that German savers are not making enough of their excellent starting position with high incomes and high savings.



# Eastern Europe

| Population In the analyzed countries····································  | 6 |
|---|---|
| GDP In the analyzed countries····· EUR 3,439br Analyzed countries' share of the region as a whole ····· 94.39 Analyzed countries' share of global GDP····· 4.99 | 6 |
| Gross financial assets of private households Total EUR 2,412br Average EUR 6,060 per capita Share of global financial assets                                    | a |
| Debt of private households Total····  Average····  As % of GDP···  Debt of private households  EUR 760br  EUR 1,910 per capita  22.19                           | a |

#### 10 Bulgaria, Estonia, Croatia, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, the Czech Republic and Hungary.

#### Eastern European EU members

Private financial assets grew by 6.7% in eastern European EU member states in 2016, slightly above the previous year's growth of 6.3%. Growth rates were positive in each of these 11 countries<sup>10</sup>. Overall, household savings came to EUR 1.2 trillion at the end of last year. Despite this robust development, the 2007 economic and financial crisis certainly took considerable wind out of the sails of asset growth. While double-digit growth rates had been the norm in the years preceding the crisis, average growth has since fallen to just under 6%.

Private households still held the biggest chunk of their financial assets (approximately 45%) in bank deposits. Although the world's major central banks have effectively abolished interest rates with their expansive monetary policy, inflows of funds into this asset class have risen continuously over the last three years, representing about two-thirds of annual savings on average. Private households paid almost EUR 42 billion into banks in net terms last year, 20% more than in 2015. Bank deposits grew strongly by 8.5% as a result.

Growth in securities holdings in the region slowed year-on-year from 7.0% to 5.1%. However, developments varied widely between individual countries. While Hungary and Latvia reported growth of 10.5% and 23.9% respectively, Romanian and Slovenian households suffered losses to the tune of 4.7% and 0.6% respectively. After inflows of funds into this asset class across

all countries fell from a record figure of EUR 19.9 billion in 2012 to EUR 2.7 billion three years later, they increased again to EUR 6.0 billion in 2016. The respective leading index in almost all eastern European EU member states recorded double-digit growth over the course of the year. The exceptions were Romania (+1.2%), Slovakia (+9.0%), Slovenia (+3.1%) and the Czech Republic, where the benchmark index actually fell by 3.6% year-on-year. If we compare the figures at the end of last year with their pre-crisis levels, however, the leading indices in more than half of the 11 countries were still down. Estonia, Latvia, Lithuania and Hungary were the only countries where the stock markets rose compared with 2007. All in all, the proportion of gross financial assets held in securities came in at almost 30%. a fall of 9.6 percentage points from this asset class's peak in 2007.

Household receivables from insurance companies and pension funds grew by 9.0% last year, the highest level of growth among the three major asset classes. Romania achieved the strongest growth of 23.4%, although this was from a very low initial level. Assets of EUR 470 per capita were invested there in insurance policies and pensions, against a regional average of EUR 1,590. The ratio of this asset class to gross financial assets varies from country to country. In Romania, for example, it accounted for only 7.8% of gross financial assets, compared with 25% and 20% respectively in Croatia and Slovakia. Since the beginning of the millennium, the average ratio for the eastern European EU countries rose from 6.3% to 13.6% last year as private retirement

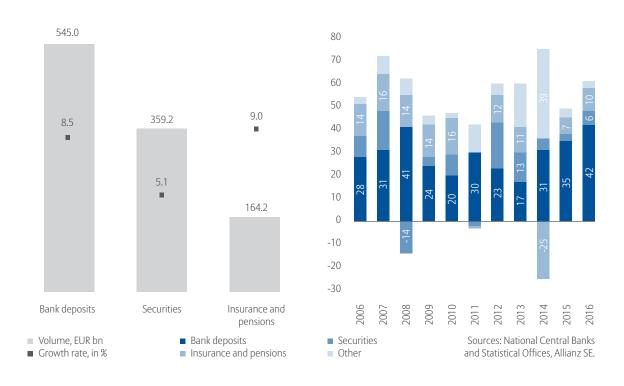
provisions grew, reaching a high of as much as 18.2% in 2010. A decline in importance of this asset class in household asset portfolios in Hungary and Poland is due to government intervention. The Hungarian parliament under prime minister Viktor Orbán decided at the end of 2010 to nationalize the private, capital-funded pillar of retirement provision. The funds were used to reduce the deficit in state pension schemes and pay back sovereign debt. Citizens had paid in the equivalent of around EUR 9.7 billion since 1998, which is now missing from household balance sheets. Consequently, the share of insurance policies and pensions in overall assets has since dropped to less than half of what it was, and stood at around 8% at the end of 2016.

In 2014, Poland became the second eastern European EU member state to nationalize some of the retirement funds managed by private pension funds, transferring about half of these savings to the state pension system. According to statistics of the Polish central bank, the "confiscated" savings were no longer registered in household asset balance sheets as receivables from insurance companies and pension/retirement funds, but instead as other receivables. Ultimately, households appear no worse off than they were in the past, at least on paper. It remains to be seen whether they will be able to rely on these funds in the future. There has certainly been a loss of confidence in how secure private retirement provision is; households have reduced inflows of funds into this asset class to an average of just under EUR 3 billion in the last two years – less than half the levels reached in the years before the reform. The share of this asset class in the asset portfolio has fallen by more than 10 percentage points to 15%.

#### Eastern European EU member states – Bank deposits dominate asset portfolio

Volume and growth by asset class, 2016

Inflows and outflows by asset class, in EUR bn



# Debts are rising faster – but are still at a low level

The eastern European countries' entry to the EU gave the financial sector a real boost in terms of development. Austrian and Scandinavian banks in particular have been on a major expansion course in the region, propelling lending to the private sector as a whole from just under 32% of nominal economic output in 2000 to around 56% eight years later. Among private households alone, annual debt growth rates in excess of 30% were not uncommon prior to the outbreak of the financial crisis. By the end of 2008, the household debt level had more than trebled from 9.8% of gross domestic product to around 32%.

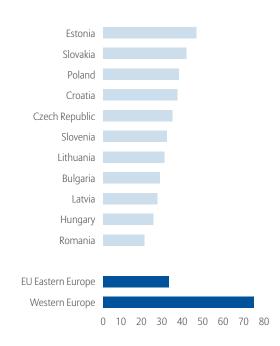
The tremendous boom came to an abrupt end in 2009, when the financial crisis forced banks to restrict lending in, and to, Eastern Europe. The annual growth rate fell to an average of 4.0% in the following three years. Borrowing stagnated in 2012, after which growth in debt gradually began to pick up again. In line with global development, credit growth has also accelerated continuously in eastern European EU countries, reaching 4.1% last year. Debt growth of 10.8% and 5.4% respectively in Slovakian and Czech households was well above average, and together they account for almost one-quarter of the region's total debt burden. Conversely, three of the 11 countries reported a net reduction in liabilities last year; the fifth consecutive year that this had occurred in Croatia, the sixth in Hungary and the eighth in Latvia.

#### Household debt levels falling

Growth of debt since 2006



Debt as % of GDP, 2016 by country



Sources: National Central Banks and Statistical Offices, Thomson Reuters, Allianz SE.

Although the debt growth rate has increased again in a regional context, the average rate of growth in liabilities of 2.5% over the last five years is still considerably slower than growth in assets, which have risen by an average of 7.8% per year. Relative household debt, measured as a percentage of gross financial assets, has thus declined by around 9 percentage points to 32.0%. The ratio of debts to assets has fallen in all countries since the end of 2008, with the exception of Slovakia. However, private debt has grown not only more slowly than assets, but also more slowly than nominal economic output in the same period: the debt ratio, i.e. the ratio of liabilities to GDP, has dropped from 34.7% at the end of 2011 to 32.8%. Within Eastern Europe, the ratio varies considerably from country to country, ranging from 20.5% in Romania to 46.5% in Estonia. Although the Estonians have the highest debt ratio in this group of countries, they are still a long way off the western European average of 75.0%.

#### Households stuck in the Swiss franc trap

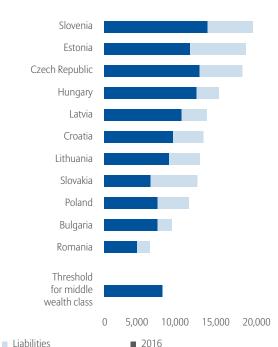
The surprising move taken by the Swiss National Bank (SNB) in mid-January 2015 to abandon the cap on the Swiss currency's value against the euro, and the abrupt appreciation of the Swiss franc that followed, fueled a further increase in liabilities in Eastern Europe, where many households had taken a large part of their (mortgage) loans out in Swiss francs to benefit from lower interest rates. This could pose a risk to the stability of the financial system, particularly in Romania, Croatia and Poland, where the proportion of loans taken out in Swiss francs is relatively high. Borrowers have higher repayments in their local currencies, which could leave them struggling to pay. In order to minimize this risk, the Hungarian authorities decided to take action back in November 2014, even before the SNB's decision. They forced banks to convert mortgage loans denominated in Swiss francs into the local currency – at a more favorable rate for borrowers. The Croatian parliament also passed legislation on forced conversion of loans denominated in Swiss francs into euros in 2015, to sweeten up voters ahead of the elections. As in Hungary, the costs associated with the exchange rate differential will be borne by financial institutions. In Poland, the conversion of Swiss franc loans at the expense of the banking sector was also one of the election promises made by Andrzej Duda from the nationalist-conservative Law and Justice party, who was elected President in October 2015. According to estimates, this forced conversion would have resulted in costs amounting to the equivalent of about EUR 15 billion for lending banks. After the Polish financial market authority warned that such intervention could cause the financial system to collapse, the ruling party backtracked and its leader, Jaroslaw Kaczynski, canceled the promise in February this year for around 500,000 affected households. Instead of waiting for state aid, Kaczynski advised debtors to go to court.

#### Wealth gap between the east and the west

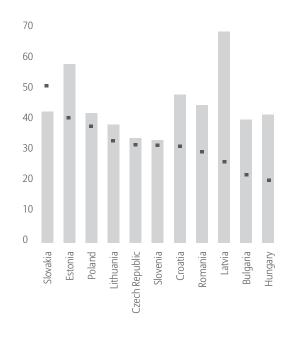
After deductions for liabilities, households in the eastern European EU member states had average per capita assets of EUR 7,920 at the end of 2016. The leader of the regional pack remains Slovenia, where each citizen has average assets of EUR 13,640. In a comparison with Western Europe, the Slovenians have actually overtaken their counterparts in Greece, where average per capita assets have dwindled from EUR 19,110 to EUR 12,560 since the end of 2007. Romania comes bottom of the regional league with average per capita assets of EUR 4,330, and is still ranked as an LWC (low wealth country). In net terms, Bulgaria, Poland and Slovakia also join Romania in the LWC ranks. Debt levels in relation to gross financial assets in Poland and Slovakia are above of the regional average of 32%: in 2016, the ratio of liabilities to assets was nearly 37% in Poland and about 50% in Slovakia. In gross terms, however, i.e. before liabilities are deducted, both countries are classed as MWCs (middle wealth countries).

#### Leader of the pack Slovenia, backmarker Romania

Net financial assets and debt per capita 2016, in EUR



Debt as % of gross financial assets by country



■ Net financial assets ■ 2008 S

Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE.

To date, not a single eastern European EU member has managed to propel itself into the ranks of the HWCs (high wealth countries), which would require average net per capita financial assets to surpass a threshold of EUR 45,900 in 2016. Although average per capita assets have nearly quadrupled in the region since the end of 2000, almost 68% of the population still has less than EUR 7,700 per capita. Admittedly, however, this proportion has fallen by more than 17 percentage points during this period. On the other hand, the number of people joining the global wealth middle class has more than doubled to 31 million (30% of the overall population), and almost three million eastern Europeans are now in the global wealth upper class. All in all, however, there is still a huge gap separating the eastern EU member states from their western counterparts. Whereas eastern European households, which represent 2.1% of the population of the 53 countries included in our analysis in 2016, accounted for only 0.6% of global net financial assets, Western Europe's EU citizens, which represent 8.0% of the population, accounted for almost 18% of global assets. At EUR 56,920, average per capita assets in the EU countries in Western Europe were about seven times higher than in the eastern European member states.

# Eastern European countries outside of the EU

Growth rates for household savings in Kazakhstan, Russia, Serbia, Turkey and Ukraine have been consistently impressive, averaging 18% a year over the past decade. Despite this dynamic development, only 0.7% of global assets, or around EUR 1.2 trillion, were attributable to this group of countries at the end of 2016 – although these countries are home to no less than 5.8% of the total population of the countries included in our analysis. Assets are correspondingly low in per capita terms, too: people living in these countries had average gross financial assets of EUR 4,100, while savings in the EU member states were almost three times this amount. Last year, asset growth in these five countries came to 9% in total, considerably lower than the historical average.

However, based on the long-term average, liabilities have been growing at an even faster rate than savings. In the period between 2006 and 2016, the liabilities side of the asset balance sheet was growing at an average rate of around 22% a year. Nevertheless, debt measured as a percentage of economic output was still at a relatively low level. The debt ratio of 16.5% at the end of 2016 was still much lower than in

Latin America (just under 29%) or Asia (around 50%). Average per capita debt of EUR 1,270 was also lower in this group of countries than the average for all emerging markets (EUR 1,830). The pace of debt growth has slowed drastically over the last few years from almost 28% in 2011 to around 3% in 2015 and about 4% last year. Households had net average assets of EUR 2,830 per capita. The lion's share of total net financial assets was owned by Russian (72%) and Turkish (21%) households, two countries that are home to more than three-quarters of the population of this group of countries.

As a net commodities exporter, Russia has been hit particularly hard by the slump in oil prices, but is slowly emerging from recession. Economic output fell by "only" 0.2% in real terms in 2016, following a drop of 2.8% in the previous year. A sharp plunge in the country's currency caused consumer prices to explode. Inflation doubled to almost 16% during 2015, causing real wages to fall and leaving households with less

scope to save. Macroeconomic developments have ultimately left their mark on household assets, with growth in financial assets slowing from 16.7% in 2014 to 13.7% in 2015 and to an estimated 6% last year. At least inflation also dropped to an annual average of 7.1% in 2016, although this was still higher than growth in assets, meaning that Russian households suffered a further loss of assets in real terms. After deduction of liabilities of EUR 1,480 – which have more or less stagnated in the last two years – Russians' savings came to an average of EUR 4,180 per capita.

In Ukraine, on the other hand, asset development recovered last year. Gross financial assets grew at an estimated rate of just under 9%, making up for the losses sustained in 2014 and 2015 – at least on paper. After deduction of inflation of almost 15% last year, all asset growth was lost. Average net financial assets per capita came to just EUR 680 at the end of 2016, the lowest figure among the countries analyzed.

Asset growth in Turkey remained stable in 2016 at 15.8%, the same high level as in previous years. The country's economic development since the financial crisis of 2001 has been impressive. Turkish GDP has grown by an average of 5.7% per year in real terms and nominal economic output per capita has increased more than eight-fold during this period, to an average

of EUR 8,640. Even the global economic and financial crisis curbed development only briefly, as the country had set about implementing important reforms, such as the stabilization of the banking sector, after the 2001 crisis. The country's economic upturn also allowed the population to achieve a certain level of prosperity, and private household savings have increased almost five-fold over the last decade. A growing middle class has emerged, with 8 million of the country's almost 80 million inhabitants joining the ranks of the global wealth middle class. Private savings, which totaled EUR 315 billion at the end of 2016, are still invested very conservatively, with around three-quarters of financial assets held in the form of bank deposits, well above the average for emerging countries (just under 41%). More than one-third of this sum was denominated in foreign currencies, reflecting a lack of trust in the domestic currency. The weak lira, which lost around 17% against the euro last year alone, is making imports more expensive and driving up inflation. The inflation rate peaked at 11.9% in April this year, its highest level for nine years and a long way off the target of 5%. After deduction of liabilities, which came to an average of EUR 1,720 per capita at the end of last year

(+8.8%), Turkish households were left with average net financial assets of EUR 2,240 per capita. However, Turkey still has a long way to go before catching up with eastern European EU member states. If average net per capita financial assets continued to rise in line with the average annual growth rate over the past decade of about 10%, Turkey would not reach the level that eastern European EU countries are currently at until 2029. In the context of the current developments in domestic and foreign policy, however, there is a large question mark over this assumption. The repressive policy adopted by Erdogan's government, particularly since the foiled coup attempt in July 2016, could jeopardize past achievements. For the Turkish economy in particular, which is heavily dependent on inflows of foreign capital, it is vital to have the trust of international investors in a functioning constitutional state with independent institutions.

Kazakhstan's and Serbia's households lag far behind with average assets of only EUR 870 and EUR 780 per capita respectively. Bank deposits account for the lion's share of financial assets in these countries, with households there also favoring safe foreign currencies. In Kazakhstan, over 60% of bank deposits were denominated in foreign currencies. Households in Serbia held around 85% of their savings deposits in foreign currencies, primarily in euros. This extremely high level not only reflects a lack of trust in the country's own currency, but is also likely to be an indicator of high levels of (illegal) monetary circulation in foreign currencies

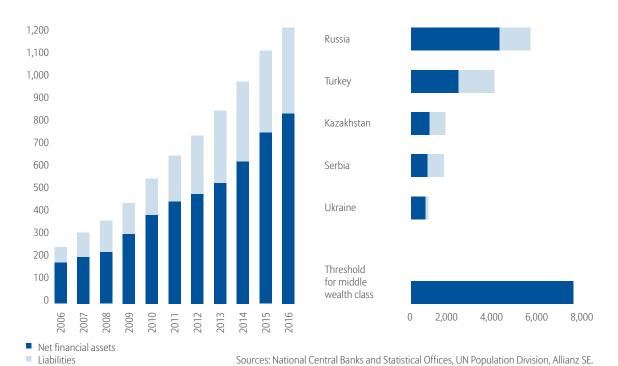
in the economy as a whole, creating a breeding ground for the black market. In circumstances like these, getting to the bottom of the actual asset situation is obviously very difficult – something that doubtlessly applies to countries other than Serbia, too.

All five countries are LWCs and have some way to go before they can expect to make the leap into the MWC group. Even Russia only has a little over half of the assets needed as a minimum to earn the title of an MWC. At the end of 2016, more than 92% of the population, or 272 million people, belonged to the lower wealth class in a global comparison, with only 22 million people making it into the middle wealth class. On average even the richest 10% of the population cannot count themselves as belonging

#### Per-capita assets in these countries still at low level

Net financial assets and debt, in EUR bn

Net financial assets and debt per capita 2016, in EUR

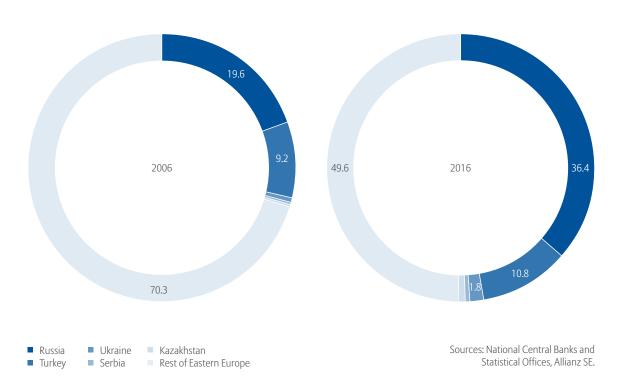


to the wealth upper class. The sometimes hefty currency losses in these countries make it all the more difficult to exceed the threshold values, which are calculated in euros.

However, households in Kazakhstan, Russia, Serbia, Turkey and Ukraine gained ground compared with eastern European EU member states: their share in net financial assets for the whole region of Eastern Europe has risen by almost 21 percentage points since the end of 2006 to around 50%.

# The weights are shifting

Share of non-EU countries in net financial assets of whole region Eastern Europe 2006 and 2016, in %





## Asia

| Population  |    |
|---|----|
| In the analyzed countries······3,305 i  | m  |
| Analyzed countries' share of the region as a whole · · · · · · · · · · · · · · · 86.6   | 5% |
| Analyzed countries' share of the global population······ 44.8                           | 8% |
| GDP   |    |
| In the analyzed countries·····EUR 20,510b   | on |
| Analyzed countries' share of the region as a whole · · · · · · · · · · · · · · · · 94.5 | 5% |
| Analyzed countries' share of global GDP······ 30.0                                      | )% |
| Gross financial assets of private households  |    |
| Total · · · · · EUR 47,620b   | on |
| Average·····EUR 14,410 per capi   | ta |
| Share of global financial assets······ 28.1   | 1% |
|   |    |
| Debt of private households  |    |
| Total · · · · · EUR 10,287b   |    |
|   |    |

11 The analysis included financial assets of private households and not-for-profit organizations in China, India, Indonesia, Israel, Japan, Malaysia, Singapore, South Korea. Taiwan and Thailand. The term "financial assets of private households" will be used from now on, however, for the sake of simplicity. Calculations of financial assets did not take into account valuables such as jewelry, precious metals. precious stones or paintings.

Gross financial assets of private households in Asia<sup>11</sup> grew by 10.4% last year and therefore much more strongly than in other regions of the world, as has been the case every year since the outbreak of the financial crisis. In the rest of the world, they rose by 5.8% overall in 2016. With gross financial assets of around EUR 47.6 trillion, Asia has advanced to become the world's second-richest region after North America, where households had gross financial assets worth almost two-thirds of those of the rest of the world combined (EUR 121.6 trillion) at the end of 2016. In relation to the population of 3.3 billion, however, financial assets of Asian households remain low, 60% of the population of all the countries we looked at worldwide accounted for just 28% of global gross financial assets.

## Region characterized by significant differences in growth momentum

As in previous years, development in the region was by no means uniform, with growth rates reflecting the need to catch up in economic terms, as well as differences in the stage of development of individual countries' financial systems. Private households in China once again achieved the strongest growth in gross financial assets in 2016, with a rise of 17.9%, followed by households in India, whose gross financial assets increased by 13.7%, and Thailand, where growth came to around 12%, reflecting a recovery on stock markets in particular. The mid-table, where growth rates were between 5.4% and

### Gross financial assets in Asia growing substantially faster than in rest of the world

Gross financial assets, rates of change and level end-2016, in % and in EUR bn



Sources: National Central Banks, Supervisory Authorities, Associations and Statistical Offices, UN Population Division, Allianz SE.

9.8%, comprised Malaysia (5.4%), South Korea (6.5%), Israel (6.9%), Singapore (7.4%), Taiwan (9.0%) and Indonesia (9.5%). Japan came last, as in previous years, with much lower growth of just 1.8%.

Cumulative growth rates over the last 10 years show a similar picture. The leaders in terms of growth were China, India and Indonesia, which achieved double-digit growth rates of 20.6%, 16.0% and 14.8% respectively. The upper mid-table included Malaysia, Singapore, South Korea and Thailand. Average annual growth in gross financial assets of private households in these countries ranged from 7.7% in Singapore to 9.1% in Malaysia in the period from 2006 to 2016. Israel and Taiwan made up the lower mid-table, with average annual growth of 5.3% and 6.2% respectively. Japan once again brought up the rear, with cumulative growth in gross financial

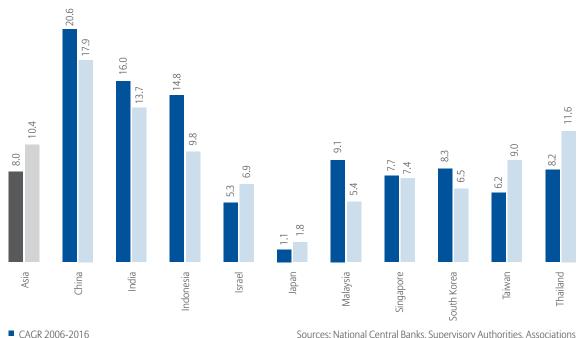
assets of just 1.1% per year since 2006. Gross financial assets of private households across all countries that we analyzed in the region grew by an average of 8.0% per year.

## Chinese households have by far the highest gross financial assets in the region

China has superseded Japan as the richest nation in Asia in terms of gross financial assets of private households. Gross financial assets of all private households in China increased to the

### Marked differences in growth momentum

Growth of gross financial assets, in %



Growth rate 2016/2015

Sources: National Central Banks, Supervisory Authorities, Associations and Statistical Offices, UN Population Division, Allianz SE.

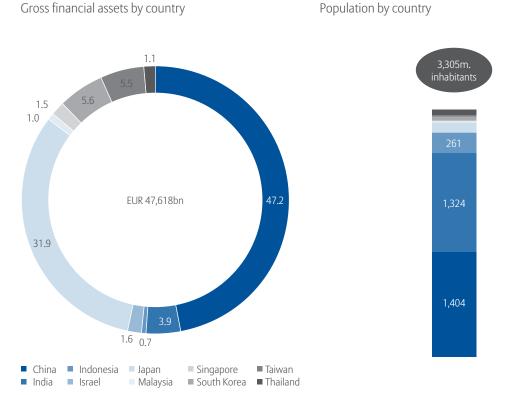
equivalent of EUR 22,469 billion in 2016, representing about 47% of total gross financial assets in the region. By contrast, Japan's share dropped to around 32%. By comparison, in 2006 the share of total gross financial assets of all the countries we analyzed in the region was 63% for private households in Japan, while it was only around 16% for Chinese households. The country with the third-highest regional share of gross financial assets was South Korea, as it had been the previous year, with 5.6%. It came just ahead of Taiwan, where private households had a share of 5.5% in the region's gross financial assets. This was followed by India, the second most populous country worldwide after China. Households there now own just under 4% of gross financial

assets in Asia. Israel, which has around 8.2 million inhabitants, held approximately 1.6%, and Singapore, which has a population of 5.6 million, held about 1.5% of total gross financial assets of private households in Asia. Indonesia remained in last place. Households in the region's third most populous country after China and India, which has 261 million inhabitants, held less than 1% of total gross financial assets of the countries we analyzed in Asia.

### A divided Asia: City state of Singapore has the highest gross per capita financial assets

The comparison of number of inhabitants and gross financial assets in the previous section already suggests that China's dominant position is partly down to the sheer size of its population.

### Households in China and Japan own three-quarters of region's gross financial assets



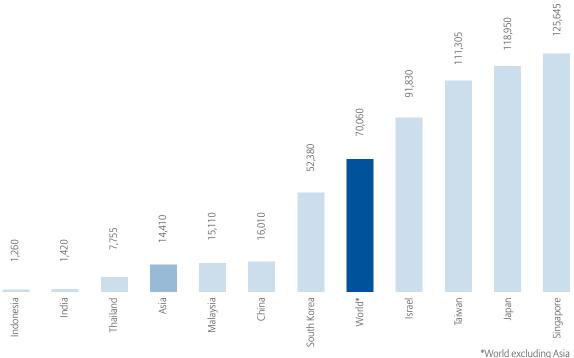
Sources: National Central Banks, Supervisory Authorities, Associations and Statistical Offices, Thomson Reuters, Allianz SE.

However, looking at gross per capita financial assets shows a different picture. The city state of Singapore tops the rankings with the equivalent of EUR 125,645 per inhabitant, ahead of Japan (EUR 118,950) and Taiwan (EUR 111,300). The other top-ranked country was Israel, where gross per capita financial assets totaled just under EUR 92,000 and thus also surpassed the average figure for the rest of the world (EUR 70,060). South Korea came last in the top half of the rankings, although the gap between it and the bottom half was considerable. Owing to asset losses resulting from the Asian crisis in the late 1990s, its average gross financial assets, equivalent to about EUR 52,400, were still much lower than at the top of the table. However, this was more than three times as high as in China, which overtook Malaysia for the first time in terms of gross per

capita financial assets. The figure for China was approximately EUR 16,010, EUR 900 higher than in Malaysia, the inhabitants of which had average gross financial assets of EUR 15,110. Gross per capita financial assets in both countries were therefore above the regional average (EUR 14,410). In Thailand they were only half as much (just under EUR 7,760), so Thailand was therefore the top of the lower third. India and Indonesia remained at the bottom of the league, with gross per capita financial assets of the equivalent of EUR 1,420 and EUR 1,260 respectively.

### Singapore pips Japan with highest financial assets per capita in region

Gross financial assets per capita 2016 by country, in EUR



Sources: National Central Banks, Supervisory Authorities, Associations and Statistical Offices, UN Population Division, Allianz SE.

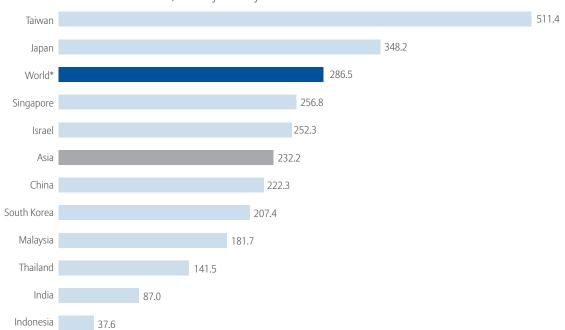
## Access to financial services is crucial to asset accumulation

Along with economic strength, access to financial services and financial knowledge in the population play a key role in the accumulation of financial assets. The governments of all of the countries we analyzed have stepped up their efforts in recent years to promote general financial education among the population and to safeguard and/or improve the efficiency and stability of the financial system. Using the asset ratio (gross financial assets of private households as a percentage of gross domestic product) as an indicator of the maturity of a financial system exposes significant differences within the region, as would be expected.

The asset ratios for the 10 countries analyzed in Asia ranged from 511% in Taiwan to just under 38% in Indonesia in 2016. The regional average was approximately 232%, a good 50 percentage points lower than that of the rest of the world (286%). Japan was the only other country apart from Taiwan in which the asset ratio exceeded this global average, at 348%. Singapore and Israel were in a "sandwich position". With asset ratios of 257% and 252% respectively, both these countries were below the average for the rest of the world, but above the regional average. China and South Korea rounded off the mid-table, with ratios of 222% and 207% respectively;

### Asset ratio reflects differences in financial market maturity

Gross financial assets as % of GDP, 2016 by country



the gross asset ratio in China has almost doubled within the last 10 years thanks to dynamic growth in financial assets, while in South Korea it has risen by almost one-third. The lower half was divided. The asset ratios in Malaysia and Thailand were still below 200%, at 182% and 142% respectively, but were much higher than in India (87%) and Indonesia, where gross financial assets of private households came to less than 40% of GDP at the end of 2016, owing to the fact that a large part of the population still has limited access to financial services.

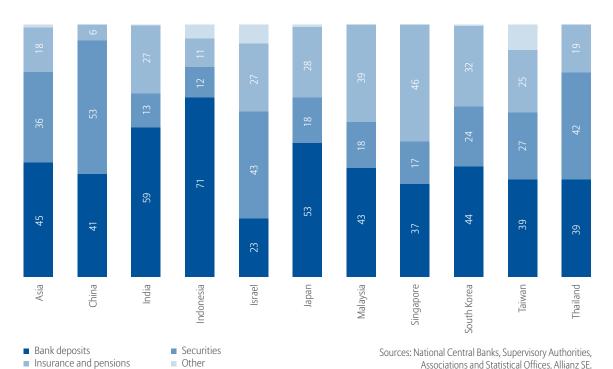
### Increasing diversification in portfolios

The diversification of a country's portfolio also reflects its stage of development. The lower the share of bank deposits and the broader the distribution of assets across different asset classes, the more highly evolved the financial system generally is.

Bank deposits remained the most popular asset class among private households in Asia in 2016, representing 45.3% of total gross financial assets. However, there were significant differences between countries, with the share of bank deposits within total assets ranging from 23% in Israel to over 70% in Indonesia. The high regional average was largely due to the investment behavior of Japanese households, which, as in previous years, continued to hold more than 50% of their financial assets in the form of savings deposits, even though the Japanese financial system is demonstrably highly developed. This was followed by receivables from life insurance companies and pension funds, which accounted for around 28% of financial assets. and securities, which represented only 18%. Only private households in India and Indonesia held

### Bank deposits (still) the largest asset class

Asset classes as % of gross financial assets, 2016



12 Cf. World Bank database. Global Financial Inclusion Database und Demirguc-Kunt, Asli, Leora Klapper, Dorothe Singer und Peter van Oudheusden (2015): The Global Findex Database 2014: Measuring Financial Inclusion around the World, Policy Research Working Paper 7255, World Bank, Washington, D.C.

an even higher share of their financial assets in the form of bank deposits. While in Japan this is mainly due to skepticism about investment in securities, particularly in the form of shares, most households in India and Indonesia simply have no alternative investment options available, or lack access to the financial market. Only about 53% of those aged over 15 in India had a bank account in 2014. In Indonesia, this figure was just 36%. By way of comparison, almost 97% of Japanese citizens aged 15 and older had a bank account.<sup>12</sup>

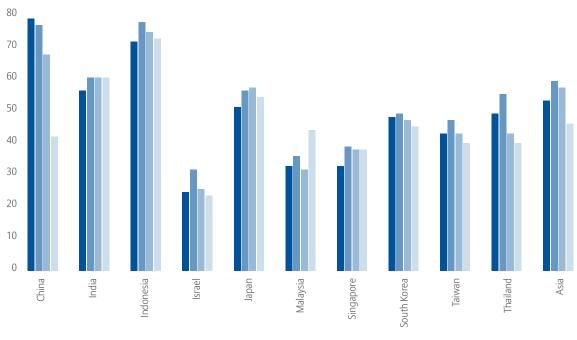
Over a period of ten years, however, the proportion of bank deposits in private household portfolios has declined significantly. In 2006 it was just under 53%, and it actually rose to 56% in 2008 in the wake of the financial crisis. Although it has subsequently fallen again in all

the countries we analyzed, with the exception of Malaysia, in some countries it remains higher than before the financial crisis. As well as India and Indonesia, these countries include Japan and Singapore. The sharpest drop occurred in China, where for some years private investors have increasingly been shifting their financial assets to asset management funds, which are often offered by banks, in the search for higher-yield products. This explains why the proportion of securities in the portfolios of private households in China is now relatively high.

While investors in China were mainly shifting their financial assets into securities and similar products, private households in Singapore, South Korea and Taiwan particularly favored life insurance policies and pension funds. A look at the performance of the leading indices in individual countries provides an explanation for this investor behavior. An investor

### Growing diversification of financial assets

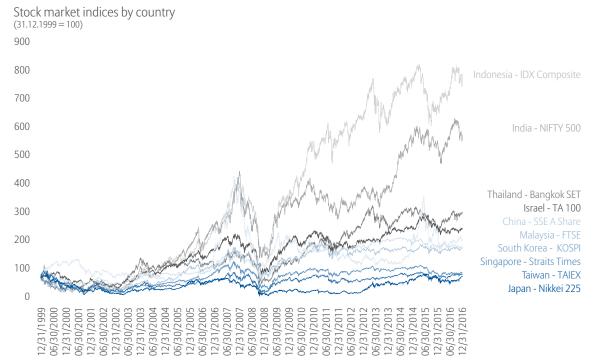
Bank deposits as % of gross financial assets by country



2006201120082016

Sources: National Central banks, Supervisory Authorities, Associations and Statistical Offices, Allianz SE. in Japan who had invested EUR 100 in the Nikkei on December 31, 1999 would have achieved value gains of just EUR 0.95 by the end of last year, corresponding to a return of 0.06% per year. In the meantime, he would have suffered considerable (book) value losses. It's therefore not surprising that many Japanese people are skeptical about investing in the stock market. The gains that investors have made on shares in Taiwan and Singapore have also been rather modest from a long-term perspective. If you had invested EUR 100 in the TAIEX at the end of 1999, you would have had EUR 109 in your account at the end of 2016, while if you had invested in the Straits Times, you would have had EUR 114. That represents an annual return of 0.5% and 0.8% respectively. Investors in South Korea and Malaysia would have fared better over the same period, with value gains of 4.1% and 4.2% respectively, although both markets have now stagnated for several years. The stock markets in Indonesia and India performed the most dynamically. Their benchmark indices have risen by 680% and 480% respectively since the start of the millennium, although growth has been repeatedly interrupted by sometimes sharp downturns, which have also affected private households' financial assets and investment behavior.

### Equity markets in Indonesia and India booming – in other countries more subdued

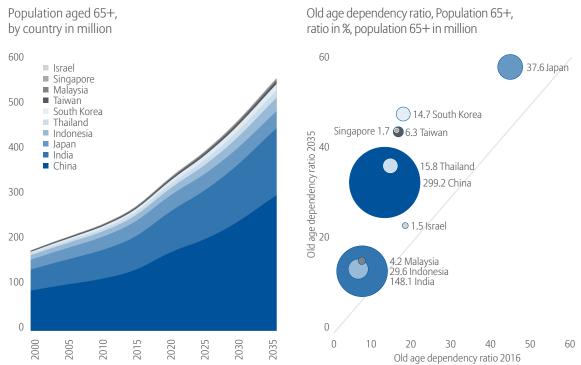


## Age distribution and structure of the pension system influence investment decisions

As well as the question of which options are available, the age distribution of society and the structure of the pension system play an important part in investment decisions. Singapore and Malaysia have a strong second pillar, which explains the high proportion of receivables from life insurance companies and pension funds in the portfolios of private households. From a demographic viewpoint, this seems somewhat surprising in the case of Malaysia, as – like Indonesia and India – it will be much less strongly affected by an aging population over the next 20 years than other countries in the region.

According to the UN, the number of people aged 65 and over in Malaysia is set to rise to 4.2 million by 2035 owing to increasing life expectancy, which means it will more than double. However, the proportion of people of pensionable age within the population as a whole would still be well below the figures for most other countries in the region, at just under 11%. The same would apply to the old age dependency ratio, at 16%. This is also the case with India and Indonesia, where the proportion of the overall population that is aged over 65 is expected to

### Aging will affect countries to varying degrees over next twenty years



The old-age dependency ratio is the number of people in retirement age, aged 65 and older per 100 persons in working age between 15 and 64. The size of the bubble represents the population aged 65 and older in million in 2035.

remain below 10% until 2035, putting the old age dependency ratio at around 14%. In China, the old age dependency ratio is already 14%. The number of people aged over 65 is expected to grow from 142 million to 299 million by 2035, leading to an increase in the old age dependency ratio to over 32%, owing to the decline in the number of people of working age caused by the one-child policy. The old age dependency ratio is expected to rise much more sharply in Singapore, South Korea, Taiwan and Thailand than in China. Within the next 20 years, it is set to increase from its current level of around 17% to about 43% in Singapore and Taiwan, from 18% to just under 47% in South Korea and from 15% to 36% in Thailand. In absolute terms, however, Japan will remain in the lead. The old age dependency ratio there is expected to climb from 44% to just under 57% by 2035.

Given that the number of people of pensionable age in the countries we have analyzed is set to increase by 272 million to 559 million over the next 20 years (by way of comparison, about 510 million people in total currently live in the 28 countries of the EU), we can assume that households will continue to restructure

their financial assets. In particular, the share of life insurance policies and pensions in private household portfolios will continue to rise, as in South Korea and Taiwan. However, the question arises of whether all households will manage to save sufficient assets before they reach pensionable age. This applies in particular to those on lower incomes, who often have few opportunities to build up assets to make provision for their retirement and whose liabilities sometimes exceed their assets.

### Private household debt continues to rise

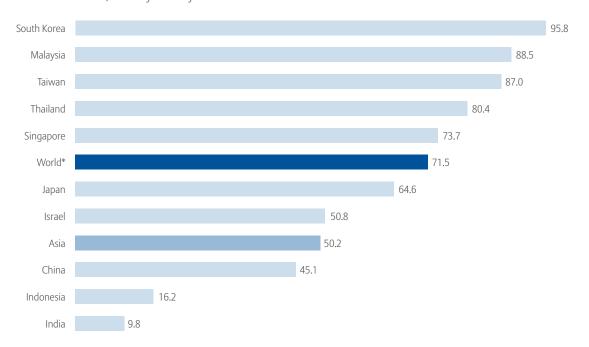
Private household liabilities increased again last year in all the countries we analyzed in the region. The biggest rise of 23.5% was in China, while the smallest was in Japan at 2.4%. As well as Japan, countries at the lower end of the scale included Singapore (+2.5%) and Thailand, where credit growth continued to slow and totaled 3.3% for 2016. Apart from China, countries at the upper end of the range included India and South Korea, where growth rates reached double figures at 13.5% and 10% respectively. While this could be classed as "catching up" in the case of India (and in the case of China), the sustained strong growth in liabilities in South Korea is somewhat worrying in view of the country's debt

ratio. Liabilities of private households in South Korea came to 95.8% of GDP in 2016, the highest debt ratio of all the countries we analyzed in Asia. The lowest ratio was in India, where private household debt amounted to just 9.8% of GDP. Other than India, countries at the lower end of the scale included Indonesia, where private household debt was 16.2% of GDP, and China, where it was 45.1%. All three countries therefore have a debt ratio that is lower than the regional average of 50.2%.

India. Indonesia and China were also at the lower end of the scale in terms of per capita debt. This came to the equivalent of EUR 160 in India and EUR 545 in Indonesia at the end of 2016, well below the regional average of EUR 3,115. Although it rose to just above the regional average in China, at EUR 3,245, it remained much lower than in Thailand (EUR 4,410) and Malaysia (EUR 7,360). Per capita debt in these five countries was thus well below the average for the rest of the world, which was approximately EUR 17,500 at the end of 2016. Households in Singapore came top among the 10 countries we analyzed, well ahead of South Korea and Japan. While per capita liabilities in the city state of Singapore totaled EUR 36,075 at the end of 2016, in South Korea

### Debt ratio in South Korea well above 90%

Debt as % of GDP, 2016 by country



they came to EUR 24,200 and in Japan, according to a review by the Japanese central bank, they stood at EUR 22,055. The other countries in the top half were Taiwan, with average liabilities of the equivalent of EUR 18,945, and Israel, with per capita debts of EUR 18,500.

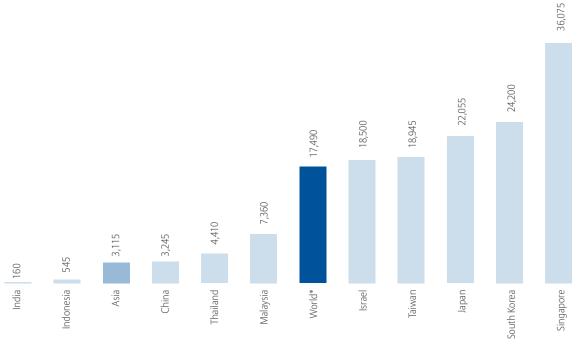
## Japanese households have the highest net per capita financial assets

If we deduct liabilities from assets, Japan remained the nation with the highest net per capita financial assets in Asia in 2016, at an equivalent of EUR 96,890. This put it ahead of Taiwan, where the average citizen had net financial assets of EUR 92,360, and Singapore where the average figure was EUR 89,570. This was followed, after a significant gap, by Israel and South Korea. However, while net per capita financial assets in Israel were still above the global average of EUR

52,570, at EUR 73,330, the figure for South Korea was considerably lower, and not just in absolute terms, at EUR 28,180. This was due to high levels of private household debt. The gap between South Korea and the global average (excluding Asia) and between South Korea and the richest households in the region was also noticeably wider than when looked at in gross terms. Gross per capita financial assets were "only" 2.3 times as high in Singapore and 1.3 times as high in the rest of the world as in South Korea. In terms of net per capita financial assets, however, the relevant multipliers are 3.4 and 1.9. Nevertheless, average net per capita financial assets in South Korea remained more than twice as high as in

### Singapore with highest per capita debt

Debt per capita 2016 by country, in EUR



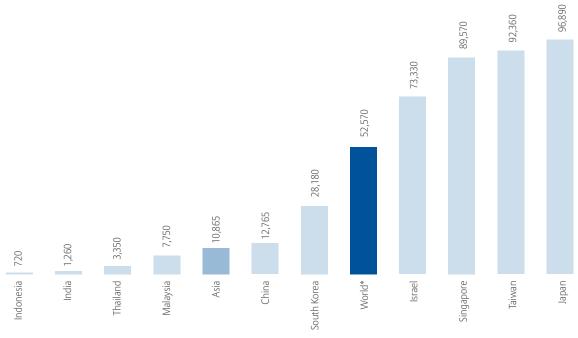
\*World ex Asia Sources: National Central Banks, Supervisory Authorities, Associations and Statistical Offices, UN Population Division, Allianz SE.

China, where they came to EUR 12,765. This was still above the regional average of EUR 10,865. In Malaysia, on the other hand, they dropped to well below the regional average owing to private household debt, reaching the equivalent of EUR 7,750 at the end of 2016. As in previous years, the countries at the lower end of the scale were Thailand at EUR 3,350, India at EUR 1,260 and Indonesia at EUR 720.

# Despite the growing number of households with moderately high financial assets, there is still catching-up to do

The number of people in Asia who belong to the global wealth middle class (net per capita financial assets of between EUR 7,700 and EUR 45,900) increased again, not least because of a further rise of 10.1% in net financial assets in the region. At the end of 2016, there were 649 million people in this group, 19.7% of the total population of the region. 245 million people, or 7.4% of the population, belonged to the global wealth upper class (net per capita financial assets of over EUR 45,900). By way of comparison, the corresponding figures for 2010 were 11.0% and 3.8% respectively. Despite all these successes, however, we must not lose sight of the fact that 72.9%, or almost three-quarters, of the population in the

Japan still has highest net financial assets per capita Net financial assets per capita 2016 by country, in EUR



\*World ex. Asia

Sources: National Central Banks, Supervisory Authorities, Associations and Statistical Offices, UN Population Division, Allianz SE.

region still has net per capita financial assets of less than EUR 7,700, and thus belongs to the global wealth lower class. With populations aging and state social security systems often providing only rudimentary protection in old age, there is therefore still an urgent need for these countries to catch up in terms of development of financial systems and access to appropriate financial services, in order to further improve opportunities to build up long-term savings.



## Australia und New Zealand

| Population   |
|--|
| Total · · · · · · 28.8 m   |
| Share of the global population · · · · · · · · · · · · · · · · · · · |
|  |
| GDP  |
| Total EUR 1,335bn  |
| Share of global GDP······1.9%  |
|  |
| Gross financial assets of private households                         |
| Total·····EUR 3,739bn  |
| Average EUR 129,880 per capita                                       |
| Share of global financial assets                                     |
|  |
| Debt of private households   |
| Total·····EUR 1,712bn  |
| Average EUR 59,470 per capita  |
| As % of GDP  |
|  |

Households in Australia ended 2016 with strong growth of 8.3% in their financial assets. Growth in their savings even accelerated slightly yearon-year (+7.4% in 2015) and exceeded not only growth in New Zealand (+3.1%), but also the average figure for all industrialized nations (+5.2%). Australian private financial assets came to around EUR 3.2 trillion in total. Receivables from insurance companies and pension funds recorded the highest growth of 10.3% and represented over 58% of the average Australian asset portfolio at the end of last year. As in previous years, households once again invested the bulk of their savings (almost EUR 69 billion, or 62%) in this asset class in 2016. Inflows of funds into bank deposits remained stable at the same level as in each of the previous two years (almost EUR 50 billion), resulting in robust growth of 7.4% in cash, demand and savings deposits even in the context of historically low interest rates. Australians are cautious about investing in securities, which has caused their share in total financial

assets to decline by more than 10 percentage points to around only 17% over the last decade. Households have now disposed of shares or investment fund units for five consecutive years in net terms; in 2016, net sales came to around EUR 10 billion in total or EUR 420 per capita. However, this was offset by gains in value of EUR 28.4 billion on the stock markets. After two lean years, Australia's leading index regained momentum and closed the year up 7.0%, resulting in net growth of 3.4% for securities as an asset class in 2016.

In contrast, households in neighboring New Zealand were much more willing to take risks when it came to investment. Securities accounted for the lion's share of almost 69% of private financial assets at the end of 2016, of which 45% comprised direct holdings of equities. However, growth in securities as an asset class slowed again in line with a weaker performance for the leading domestic index last year, declining from 5.2% in 2015 to 1.6% in 2016. New Zealand citizens held one-fifth of their savings in the form of cash, demand and savings deposits, holdings of which grew by "only" 6.8% in

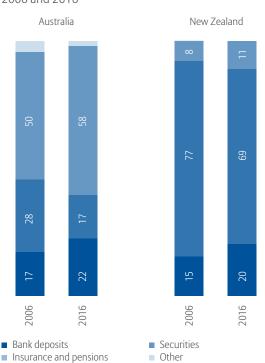
2016. Growth in the previous year came to 11.0%. Increased consumer confidence, particularly in the second half of the year, boosted private consumption and contributed to a reduction in the savings rate. Households' receivables from insurance companies and pension funds, which represented just under 11% of financial assets, also grew more slowly than in 2015 (+6.4%, compared with +8.7% in the previous year). In total, savings in New Zealand rose to EUR 530 billion over the course of the year, representing growth of 3.1% compared with 2015.

### Private debt is alarmingly high

The outbreak of the financial crisis initially halted rapid growth in Australia's private debt, which until then had rocketed at a double-digit rate on the back of stable economic development, rising incomes and easier access to credit. At the same time, the average savings rate shot up from just 1.9% in 2007 to 8.8% in 2009. The rate hovered at around the 9% mark until 2014; a downward trend has only begun in the last two years, with the most recent figure coming to 6.3%. After growth in liabilities also dropped to a historically low level of 2.7% in 2012, debts have since begun to rise faster again, with liabilities increasing by an average of 6.6% per year. In 2016 there was a rise of 6.4%, while disposable incomes grew by only 3.0%. Relative debts of Australian households, measured as a percentage of disposable income, have increased again

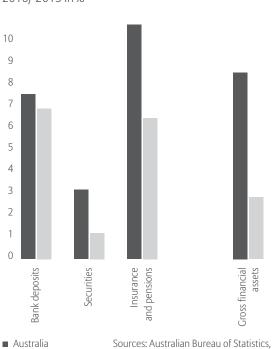
### Converse asset portfolio

Asset classes as % of gross financial assets, 2006 and 2016



Growth rates by asset class, 2016/ 2015 in %

New Zealand



Reserve Bank of New Zealand, Allianz SE.

significantly in the last three years in particular – primarily owing to a rise in mortgage debt, although modest growth in incomes has also played a part. In 2016 alone, the ratio of debts to incomes climbed from 183.0% to 188.8%. Average liabilities per capita came to EUR 65,620 in Australia, twice the average for industrialized countries; worldwide, only Switzerland and Norway exceed this figure.

Low interest rates continue to help households to offset rising costs for ever larger loans. The ratio of interest payments to disposable income remained stable in the final quarter at 8.6%, in line with the relatively low level of the previous three years (average of 8.7%); the highest level to date was 13.2%, which was recorded in the third quarter of 2008. On the whole, however, the household sector has become more vulnerable, given that debts have risen again while growth in incomes has been only very moderate. Potential reductions in income or higher interest rates could become a risk, particularly for households with high levels of debt. This is compounded by growing risks on the property market, with house prices rising rapidly in

Sydney and Melbourne. At the same time, however, there are concerns about an oversupply of apartments in parts of Melbourne and Brisbane, where prices have recently fallen, while rents have risen only moderately and there has been an upward trend in vacancy rates. The rating agency Moody's downgraded the country's four major banks in mid-2017, shortly after Standard & Poor's did the same for almost all Australia's financial institutions. The property boom down under appears to represent an increasing threat.

Developments in New Zealand tell a very similar "debt story". Households there were also forced to massively reduce their borrowing as a result of the financial crisis. The ratio of debts to incomes, which had peaked at 158.6% in mid-2008, noticeably declined in subsequent years. Only in 2012, when credit growth accelerated significantly, did the ratio begin to rise again, climbing from 146.4% to 166.8% at the end of 2016. Debt grew by 8.2% last year, the highest level of growth since 2007. Despite this, New Zealand still had a much lower debt ratio than Australia, both in relative terms and as an absolute figure. Liabilities per capita came to an average of EUR 27,630, less than half the figure for Australia.

A property boom has also occurred in some regions of New Zealand over the last few years. In particular, growth in net immigration has fueled demand for home ownership, pushing up house prices. If the market were to become overheated, this could harbor the risk of a

sharp price correction, which could threaten financial stability. This is because properties and mortgages are the dominant assets on the balance sheets of households and banks. New Zealand's central bank has already taken various measures in recent years with the aim of cushioning the impact of a price correction on the property market. Although house price inflation has declined noticeably since last fall, dropping from around 14% in October to 8% in April this year, prices are very high in relation to incomes and rents, particularly in Auckland. Pressure on house prices continues to pose a serious risk to financial stability, as New Zealand's central bank emphasizes once again in its latest report.

### Differences in the ratio of assets to liabilities

Looking at the region as a whole, just under 42% of the population had high net financial assets in a global comparison, i.e. an average of more than EUR 45,900 per capita, at the end of 2016. In North America, this proportion came in at 41%, whereas "only" around 34% of the population of western Europe falls into this category. If we only look at the assets side of the wealth balance sheet, then at the end of last year, Australians had average per capita financial assets of EUR 133,010, putting them 17% ahead of their neighbors in New Zealand (EUR 113,660 per capita). Following deductions for liabilities, however, the latter are in a much better position: due to the relatively high debt burden, Australian financial assets fell to only EUR 67,390 per capita in net terms, whereas in New Zealand, average per capita assets came in at EUR 86,030 in net terms.

### Debt growing faster than income

Debt growth, yoy in %



Debt as % of disposable income



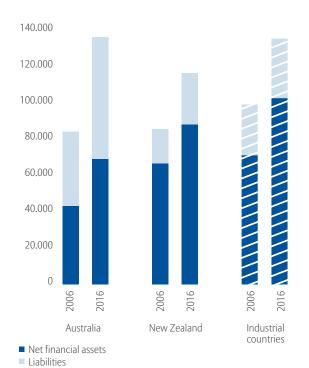
Sources: Australian Bureau of Statistics, Reserve Bank of New Zealand, Thomson Reuters, Allianz SE.

This means that Australian households are more indebted than their counterparts in New Zealand in both absolute and relative terms. For each euro borrowed in Australia, there were assets worth EUR 2.00, while households in New Zealand had more than EUR 4.00 in assets for each liability of one euro.

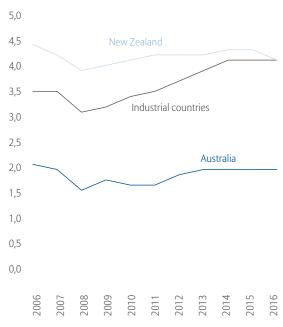
In the global league of the highest net per capita financial assets, New Zealand is in tenth place, after Canada, and four places ahead of Australia. Compared with 2000, however, the country has fallen three places, whereas Australia has climbed from 19th to 14th place. This reflects the fact that not only debts, but also assets have risen significantly in Australia, growing by an average of 8.6% per year since the end of 2000, compared with an average of 6.0% in New Zealand.

### Australian debt well above industrial country average

Net financial assets and debt per capita, in EUR



### Gross financial assets a multiple of debt



Sources: Australian Bureau of Statistics, Reserve Bank of New Zealand, UN Population Division, Allianz SE.



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## Appendix

### Appendix A: Methodological comments

### General assumptions

The Allianz Global Wealth Report is based on data from 53 countries. This group of countries covers around 90% of global GDP and 69% of the global population. In 43 countries, we had access to statistics from the macroeconomic financial accounts. In the other countries, we were able to estimate the volume of total financial assets based on information from household surveys, bank statistics, statistics on assets held in equities and bonds, and technical reserves.

In some countries, it is still extremely difficult to find data on the financial assets of private households. Let's take the Latin American countries as an example. For many countries, the only information that can be found relates to the entire private sector or the economy as a whole, which is often of only limited use as far as the situation of private households is concerned. In addition to Chile, Columbia has fairly good data that can be used to analyze the financial structure of private household assets. In Argentina, for example, we were able to estimate financial assets with the help of data on bank deposits and insurance reserves.

In order to rule out exchange rate distortions over time, the financial assets were converted into the national currency based on the fixed exchange rate at the end of 2016.

### Statistical distinctions

The process associated with the introduction of the European System of Accounts 2010 (ESA 2010) in September 2014 involved updating and harmonizing the guidelines governing the preparation of many macroeconomic statistics. The new requirements also apply to the macroeconomic financial accounts. One change relates to private households: under the ESVG 2010 regulations, the two sectors "Private households" and "Private organizations without pecuniary reward" are no longer grouped, but are now reported separately. This also has implications for the Allianz Global Wealth Report, which takes data from the macroeconomic financial accounts as a basis where available. For many countries, however - particularly those outside of the European Union - there is no separate data available for these sectors in general, or at least not at present. So in order to ensure global comparability, this publication analyzes both sectors together under the heading "private households".

### Determination of wealth bands for global wealth classes

Lower wealth threshold: there is a close link between financial assets and the incomes of private households. According to Davies et al. (2009), private individuals with below-average income tend to have no assets at all, or only very few. It is only when individuals move into middle and higher income groups that they start to accumulate any assets to speak of.

We have applied this link to our analysis. Countries in the upper-middle income bracket (based on the World Bank's country classification system) therefore form the group in which the average assets of private households has reached a relevant volume for the first time. This value marks the lower threshold for the global wealth middle class. How high should this value be?

In terms of income, households with incomes that correspond to between 75% and 150% of average net income are generally considered to constitute the middle class. According to Davies et al., households with income corresponding to 75% of the average income have assets that correspond to 30% of the average assets. As far as the upper threshold is concerned, 150% of average income corresponds to 180% of average assets. Consequently, we have set the threshold values for the middle wealth class at 30% and 180% of average per capital assets. If we use net financial assets to calculate the two thresholds, we arrive at an asset range of between EUR 7,700 and EUR 45,900 for the global middle wealth class in 2016. The gross thresholds lie at EUR 10,100 and EUR 60,400.

Individuals with higher per capita financial assets then belong to the global high wealth class, whereas those with lower per capita financial assets belong to the "low wealth" class.

These asset bands can, of course, also be used for the purposes of country classification. Countries in which the average net per capita financial assets are less than EUR 7,700 can be referred to as "low wealth countries" (LWCs). "Middle wealth countries" (MWCs) are all countries with average net per capita financial assets of between EUR 7,700 and EUR 45,900; finally, all countries with even higher average net per capita financial assets are described as "high wealth countries" (HWCs).

### Country classification based on net per capita financial assets:

| HWC             | MWC             | LWC           |
|-----------------|-----------------|---------------|
| Australia*      | Chile*          | Argentina***  |
| Belgium*        | China***        | Brazil***     |
| Denmark*        | Estonia*        | Bulgaria*     |
| Germany*        | Finland*        | India***      |
| France*         | Greece*         | Indonesia***  |
| United Kingdom* | Ireland*        | Kazakhstan*   |
| Israel**        | Croatia*        | Colombia**    |
| Italy*          | Latvia*         | Mexico***     |
| Japan*          | Lithuania*      | Peru***       |
| Canada*         | Malaysia**      | Poland*       |
| New Zealand*    | Norway*         | Romania*      |
| Netherlands*    | Portugal*       | Russia**      |
| Austria*        | Slovenia*       | Serbia***     |
| Sweden*         | Spain*          | Slovakia*     |
| Switzerland**   | South Korea*    | South Africa* |
| Singapore*      | Czech Republic* | Thailand***   |
| Taiwan**        | Hungary*        | Turkey*       |
| USA*            |                 | Ukraine***    |
|                 |                 |               |

<sup>\*\*\*</sup>Approximated based on other statistics

| Appendix B:                 | Gross financial assets |                |                | Net financial assets | Gini coefficient of<br>wealth distribution | GDP            |
|-----------------------------|------------------------|----------------|----------------|----------------------|--|----------------|
| Financial assets by country | in EUR bn              | 2016, yoy in % | EUR per capita | EUR per capita       | in %                                       | EUR per capita |
| Argentina                   | 96                     | 54.1           | 2,190          | 1,440                | 0.68                                       | 10,640         |
| Australia                   | 3,209                  | 8.3            | 133,010        | 67,390               | 0.59                                       | 48,160         |
| Austria                     | 637                    | 2.8            | 73,160         | 51,980               | 0.70                                       | 40,100         |
| Belgium                     | 1,311                  | 4.8            | 115,430        | 92,080               | 0.57                                       | 37,120         |
| Brazil                      | 1,745                  | 12.3           | 8,410          | 4,980                | 0.73                                       | 8,900          |
| Bulgaria                    | 64                     | 3.8            | 8,920          | 7,050                | 0.66                                       | 6,640          |
| Canada                      | 4,664                  | 7.6            | 128,510        | 87,580               | 0.65                                       | 39,500         |
| Chile                       | 402                    | 5.9            | 22,460         | 16,460               | 0.74                                       | 13,290         |
| China                       | 22,469                 | 17.9           | 16,010         | 12,770               | 0.53                                       | 7,200          |
| Colombia                    | 240                    | 9.9            | 4,940          | 3,090                | 0.74                                       | 5,720          |
| Croatia                     | 55                     | 3.3            | 13,080         | 9,100                | 0.62                                       | 10,750         |
| Czech Republic              | 194                    | 4.5            | 18,290         | 12,630               | 0.61                                       | 16,450         |
| Denmark                     | 837                    | 2.6            | 146,490        | 81,590               |  | 48,520         |
| Estonia                     | 25                     | 5.4            | 18,740         | 11,320               | 0.67                                       | 15,940         |
| Finland                     | 315                    | 5.2            | 57,240         | 28,650               | 0.65                                       | 38,900         |
| France                      | 5,102                  | 5.5            | 78,840         | 56,040               | 0.66                                       | 34,440         |
| Germany                     | 5,763                  | 4.7            | 70,350         | 49,760               | 0.73                                       | 38,260         |
| Greece                      | 255                    | -1.8           | 22,780         | 12,560               | 0.58                                       | 15,730         |
| Hungary                     | 148                    | 8.2            | 15,140         | 12,220               | 0.62                                       | 11,620         |
| India                       | 1,878                  | 13.7           | 1,420          | 1,260                | 0.66                                       | 1,630          |
| Indonesia                   | 330                    | 9.8            | 1,260          | 720                  | 0.76                                       | 3,360          |
| Ireland                     | 368                    | 3.0            | 77,860         | 45,100               | 0.70                                       | 56,290         |
| Israel                      | 752                    | 6.9            | 91,830         | 73,330               | 0.65                                       | 36,400         |
| Italy                       | 4,168                  | 0.3            | 70,130         | 54,530               | 0.58                                       | 28,140         |
| Japan                       | 15,196                 | 1.8            | 118,950        | 96,890               | 0.55                                       | 34,160         |
| Kazakhstan                  | 29                     | 16.8           | 1,610          | 870                  | 0.62                                       | 6,780          |
| Latvia                      | 27                     | 2.6            | 13,630         | 10,190               | 0.74                                       | 12,700         |
| Lithuania                   | 37                     | 7.5            | 12,630         | 8,560                | 0.66                                       | 13,290         |
| Malaysia                    | 471                    | 5.4            | 15,110         | 7,750                | 0.70                                       | 8,320          |
| Mexico                      | 868                    | 7.6            | 6,800          | 5,650                | 0.71                                       | 6,930          |
| Netherlands                 | 2,336                  | 6.3            | 137,540        | 87,980               | 0.64                                       | 41,040         |
| New Zealand                 | 530                    | 3.1            | 113,660        | 86,030               | 0.65                                       | 37,040         |
| Norway                      | 492                    | 6.0            | 93,640         | 24,080               | 0.58                                       | 65,250         |
| Peru                        | 109                    | 6.9            | 3,440          | 2,620                | 0.70                                       | 5,890          |
| Poland                      | 428                    | 8.6            | 11,200         | 7,070                | 0.58                                       | 11,000         |
| Portugal                    | 381                    | 1.3            | 36,710         | 20,820               | 0.66                                       | 17,830         |
| Romania                     | 120                    | 5.9            | 6,060          | 4,330                | 0.63                                       | 8,480          |
| Russia                      | 815                    | 6.4            | 5,660          | 4,180                | 0.69                                       | 9,330          |
| Serbia                      | 14                     | 8.3            | 1,550          | 780                  | 0.65                                       | 3,650          |
| Singapore                   | 706                    | 7.4            | 125,640        | 89,570               | 0.64                                       | 48,920         |
| Slovakia                    | 67                     | 9.8            | 12,310         | 6,150                | 0.48                                       | 14,870         |
| Slovenia                    | 41                     | 4.1            | 19,680         | 13,640               | 0.60                                       | 19,140         |
| South Africa                | 531                    | 4.7            | 9,470          | 7,080                | 0.79                                       | 5,350          |
| South Korea                 | 2,660                  | 6.5            | 52,380         | 28,180               | 0.54                                       | 25,260         |
| Spain                       | 2,090                  | 1.4            | 45,090         | 28,480               | 0.58                                       | 24,030         |
| Sweden                      | 1,341                  | 7.4            | 136,270        | 95,050               | 0.80                                       | 46,410         |
| Switzerland                 | 2,259                  | 3.4            | 268,840        | 175,720              | 0.63                                       | 72,320         |
| Taiwan                      | 2,622                  | 9.0            | 111,310        | 92,360               | 0.64                                       | 21,770         |
| Thailand                    | 534                    | 11.6           | 7,760          | 3,350                | 0.67                                       | 5,480          |
| Turkey                      | 315                    | 15.8           | 3,960          | 2,240                | 0.68                                       | 8,640          |
| Ukraine                     | 36                     | 8.6            | 810            | 680                  | 0.61                                       | 1,830          |
| United Kingdom              | 7,669                  | 8.0            | 116,570        | 84,080               | 0.75                                       | 34,540         |
| USA                         | 71,424                 | 5.9            | 221,690        | 177,210              | 0.81                                       | 54,640         |
| World                       | 169,172                | 7.1            | 33,570         | 25,510               |  | 12,490         |

...by gross per capita financial assets (in EUR)

| 1        | USA               | 177,210          | 1        | Switzerland     | 268,840          |
|----------|-------------------|------------------|----------|-----------------|------------------|
| 2        | Switzerland       | 175,720          | 2        | USA             | 221,690          |
| 3        | Japan             | 96,890           | 3        | Denmark         | 146,490          |
| 4        | Sweden            | 95,050           | 4        | Netherlands     | 137,540          |
| 5        | Taiwan            | 92,360           | 5        | Sweden          | 136,270          |
| 6        | Belgium           | 92,080           | 6        | Australia       | 133,010          |
| 7        | Singapore         | 89,570           | 7        | Canada          | 128,510          |
| 8        | Netherlands       | 87,980           | 8        | Singapore       | 125,640          |
| 9        | Canada            | 87,580           | 9        | Japan           | 118,950          |
| 10       | New Zealand       | 86,030           | 10       | United Kingdom  | 116,570          |
| 11       | United Kingdom    | 84,080           | 11       | Belgium         | 115,430          |
| 12       | Denmark           | 81,590           | 12       | New Zealand     | 113,660          |
| 13       | Israel            | 73,330           | 13       | Taiwan          | 111,310          |
| 14       | Australia         | 67,390           | 14       | Norway          | 93,640           |
| 15       | France            | 56,040           | 15       | Israel          | 91,830           |
| 16       | Italy             | 54,530           | 16       | France          | 78,840           |
| 17       | Austria           | 51,980           | 17       | Ireland         | 77,860           |
| 18       | Germany           | 49,760           | 18       | Austria         | 73,160           |
| 19       | Ireland           | 45,100           | 19       | Germany         | 70,350           |
| 20       | Finland           | 28,650           | 20       | Italy           | 70,130           |
| 21       | Spain             | 28,480           | 21       | Finland         | 57,240           |
| 22       | South Korea       | 28,180           | 22       | South Korea     | 52,380           |
| 23       | Norway            | 24,080           | 23       | Spain           | 45,090           |
| 24       | Portugal          | 20,820           | 24       | Portugal        | 36,710           |
| 25       | Chile<br>Slovenia | 16,460           | 25       | Greece<br>Chile | 22,780           |
| 26<br>27 | China             | 13,640<br>12,770 | 26<br>27 | Slovenia        | 22,460<br>19,680 |
| 28       | Czech Republic    | 12,770           | 28       | Estonia         | 18,740           |
| 29       | Greece            | 12,560           | 29       | Czech Republic  | 18,290           |
| 30       | Hungary           | 12,220           | 30       | China           | 16,010           |
| 31       | Estonia           | 11,320           | 31       | Hungary         | 15,140           |
| 32       | Latvia            | 10,190           | 32       | Malaysia        | 15,110           |
| 33       | Croatia           | 9,100            | 33       | Latvia          | 13,630           |
| 34       | Lithuania         | 8,560            | 34       | Croatia         | 13,080           |
| 35       | Malaysia          | 7,750            | 35       | Lithuania       | 12,630           |
| 36       | South Africa      | 7,080            | 36       | Slovakia        | 12,310           |
| 37       | Poland            | 7,070            | 37       | Poland          | 11,200           |
| 38       | Bulgaria          | 7,050            | 38       | South Africa    | 9,470            |
| 39       | Slovakia          | 6,150            | 39       | Bulgaria        | 8,920            |
| 40       | Mexico            | 5,650            | 40       | Brazil          | 8,410            |
| 41       | Brazil            | 4,980            | 41       | Thailand        | 7,760            |
| 42       | Romania           | 4,330            | 42       | Mexico          | 6,800            |
| 43       | Russia            | 4,180            | 43       | Romania         | 6,060            |
| 44       | Thailand          | 3,350            | 44       | Russia          | 5,660            |
| 45       | Colombia          | 3,090            | 45       | Colombia        | 4,940            |
| 46       | Peru              | 2,620            | 46       | Turkey          | 3,960            |
| 47       | Turkey            | 2,240            | 47       | Peru            | 3,440            |
| 48       | Argentina         | 1,440            | 48       | Argentina       | 2,190            |
| 49       | India             | 1,260            | 49       | Kazakhstan      | 1,610            |
| 50       | Kazakhstan        | 870              | 50       | Serbia          | 1,550            |
| 51       | Serbia            | 780              | 51       | India           | 1,420            |
| 52       | Indonesia         | 720              | 52       | Indonesia       | 1,260            |
| 53       | Ukraine           | 680              | 53       | Ukraine         | 810              |
|          |                   |                  |          |                 |                  |
|          |                   |                  |          |                 |                  |



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