

# PREFACE SECURING OUR VALUES

Over the last two decades, global wealth dynamics were shaped by one particular trend: convergence between rich and poor. Financial assets in emerging markets easily outgrew those in advanced countries; the annual growth gap amounted to more than 11 percentage points on average. But 2018, convergence stopped. And that's not all: For the first time, total financial assets of households in emerging markets declined. Just a bump in the road or a harbinger of things to come? Do we need to rewrite the emerging market narrative of a sustained catch-up process? It is certainly too early to judge. The jury is still out. But in the meanwhile, more dark clouds have gathered on the horizon of the global economy.

However, not only savers in poorer countries felt the brunt of escalating trade conflicts and rising political uncertainties. One man's sorrow is not another man's joy: Households in advanced countries, too, had to cope with negative financial asset growth in 2018. There are no winners in dismantling the global order that underpinned rapid globalization in the first place. When capital is no longer flowing into the emerging world in search for higher returns, it stays stuck in the rich world, chasing the same safe assets – whose returns are pushed deeply into the red as a consequence. But in a world without returns, how can we secure the incomes of future generations? How can we undertake the necessary investments to mitigate climate change?

It is a very challenging environment for savers worldwide – as it is for us. Allianz is one of the leading global financial service providers. We strive to provide our clients with solutions and services that secure their financial well-being, for today and all the years to come. Fulfilling this purpose requires – among many other things – strong values of openness and diversity, collaboration and tolerance. Because it is exactly this set of values that shapes successful behavior and underpins progress.

The tenth edition of our "Allianz Global Wealth Report" is coming out at a time of rising economic belligerence and exclusionism. Instead, the world desperately needs more cooperation and inclusive growth. This can only be achieved if we rigorously defend and secure our values. I personally hope that many readers of this year's report will join us in that important engagement.

Oliver Bäte

Vin Bile

Chairman of the Board of Management of Allianz SE



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#### No winners

Rising uncertainty took its toll on financial markets in 2018 – and households felt the brunt: Private financial assets fell by 0.1% in 2018, the first decline since 2008. Gross financial assets in the 53 countries we analyzed thus remained more or less flat at EUR 172.5 trillion. The decline in gross financial assets in 2018 was widespread, both emerging and advanced countries ended the year in the red. For emerging markets, it was the first time in this century, for advanced markets the third time since 2008 and 2002.

## **Convergence stalled**

The global process of convergence, the closure of the gap between richer and poorer regions, seems to have come to a halt. In 2018 growth in gross financial assets in emerging markets was for the second year in a row below that of advanced markets and the share of emerging markets in global financial assets remained flat at around 18%. But as the growth gap between poorer and richer regions of the world still stands at an impressive 11 percentage points on average over the last two decades, it might be too early to rewrite the narrative of sustained catch-up. But economic belligerence has made the path to the rich world much more rocky for emerging markets.

## Fresh savings at a record high

Total financial assets declined in 2018, but fresh savings set a new record. They increased by 22% to more than EUR 2,700 billion. Were it not for tumbling stock markets, this record purchase of financial assets would have resulted in asset growth of 2%. In other words: The decline in asset prices, mainly equities, cost the households around EUR 3,000 billion in 2018. The increase in the flow of funds was mainly driven by US households, who upped their fresh savings by a whopping 46% to EUR 1,800 billion; US savings thus accounted for two thirds of global savings in 2018. This was driven in large parts by the US tax reform bringing some windfall profits to US households - which were duly reinvested.

## The price of low yields

The years of continuously falling yields have left a clear mark on savings behaviors: Savers are turning their backs on the asset class of insurance and pensions. Its share in total fresh savings has fallen from around 60% in the aftermath of the crisis to a mere 25% in 2018. At first glance, securities seemed to benefit from the low yield environment. Their share in total fresh savings increased by 2pp to 29% in 2018, the highest share on record. This development, however, is entirely due to the situation in the US. Other savers are clearly more cautious: Be it Europe, Japan or Australia: Households were net sellers of securities in 2018. Bank deposits remained by far the most popular destination for fresh savings in 2018, for the eighth year in a row. This

penchant for liquidity and safety costs savers dearly, however: Losses suffered by households as a result of inflation if they parked their savings in bank accounts are expected to have risen to almost EUR 600 billion in 2018.

of Australia and New Zealand (+3.1%). Financial assets of households in Western Europe declined almost in step with North America last year (-0.2% and -0.3%, respectively).

#### As safe as a bank

Bank deposits were the best performing asset class in 2018: Rising inflows led to an increase in growth from 4.3% to 5.7%, on par with the average for the last decade. Securities, on the other hand, declined by 4.9% in 2018, the first drop in over a decade. The slump was, however, less pronounced than in 2008 (-22.3%) and 2002 (-6.5%). Growth in insurance and pensions disappointed, too: the 1.0% increase was the second weakest in this century. This meagre growth reflects in part lower inflows but also the weak performance of underlying assets.

#### Asia's fall from grace

The regional growth league table used to be dominated by one region: Asia ex Japan. But in 2018, the region suffered a decline, with financial assets contracting by 0.9%, mainly "thanks" to developments in China. The other two emerging markets regions – Eastern Europe and Latin America – fared much better in 2018. Growth rates of 8% and 7.1%, respectively, are, however, also clearly below the long-term average and partly due to relatively high inflation rates. In the wealthier parts of the world, households had to cope with declining financial assets – with the exception

## **Precarious debt dynamics in Asia**

Worldwide household liabilities rose by 5.7% in 2018, a tad below the previous year's level of 6.0%, but also well above the long-term average annual growth rate of 3.6%. Debt growth has accelerated noticeably for the last five years and is gradually returning to levels last seen before the financial crisis. The global debt ratio (liabilities as a percentage of GDP), however, remained stable at 65.1%, thanks to still robust economic growth. Most regions saw a similar development in that respect. Asia (excluding Japan) is a different story. In the last three years alone, the debt ratio jumped by almost ten percentage points, mimicking the US development in the run-up to the subprime crisis. As a result, the debt ratio was 52.4% at the end of last year, roughly twice the level of Eastern Europe and Latin America, the other two emerging markets regions.

## America rules the world (in net financial assets)

If we subtract debt from gross financial assets, we are left with net financial assets. In 2018, they fell slightly to EUR 129.8 trillion on a global level (-1.9%). 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 173,850 last year after deduction of liabilities. On the other hand, Eastern Europe was the region with the lowest net financial assets. At the end of 2018, households had an average of EUR 4,430 per capita.

## Just a bump in the road?

For the first time in over a decade, the global wealth middle class did not grow: At the end of 2018, roughly 1,040 million people belonged to the global wealth middle class – which is more or less the same number of people as one year before. Compared to the beginning of the century, however, a whopping increase of almost 140% can be noticed. Moreover, the composition of the middle class has changed quite substantially: While the share of the Chinese and other Asians increased by more than 20 percentage points, the share of people coming from Western Europe, North America or Japan fell by 20 percentage points.

## The scars of the crisis years

When analyzing the movements between the wealth classes, one thing becomes evident: Whereas Asian countries – first and foremost China – can look back on two decades of mostly social rise, the picture for Western Europeans and Americans is bleaker. In fact, it's only in these two regions that the low wealth class has increased – by 4% of the population in Western Eu-

rope – and the high wealth classs has decreased – by 6% and 9% of the population in Western Europe and North America, respectively –, when adjusted for population growth.

## A story not told to the end

The rise of the new global wealth middle class is by no means completed. If other heavily populated countries such as Brazil, Russia, Indonesia and in particular India would have had a level and distribution of wealth comparable to China, the global wealth middle class would be boosted by around 350 million people and the global wealth upper class by around 200 million people. Moreover, the concentration of wealth is still extremely high from a global perspective. The richest 10% of the population worldwide own roughly 82% of total net financial assets; among them, the richest 1% – with average net financial assets of above EUR 1 million - own almost 43%. At least, the share of the richest decile of the population in total assets dropped by more than 8 percentage points since 2000.

## Mind the gap

The relation between median and average net financial assets and how it developed over time is a good indicator for wealth distribution, with a narrowing gap indicating an increase in prosperity in the middle of society i.e. a more even distribution. There are as many countries in which distribution has improved since the turn of the millennium as countries in which distribution has

deteriorated. The biggest group, however, consists of countries with almost no change. In contrast to the general perception, wealth distribution seems to be rather stable in many countries. Among the countries in which wealth distribution has worsened are some "usual suspects", like the US, Russia and India but also many European countries – and China: It's a sign that, with growth slowing down, wealth dynamics in the Chinese society are becoming more uneven.

## **Eluding simple generalizations**

Our new proprietary Allianz Wealth Equity Indicator (AWEI) helps to provide a more nuanced picture of wealth distribution. In some cases, it substantiates the general perception, think of the two opposing poles USA (very unequal) and Japan (very equal). In other cases, it produces surprising insights, think of the Scandinavian countries (rather unequal) or Spain and Italy (rather equal). Compared to last year, India, Russia and China are the biggest "losers", suffering huge drops in their rankings.

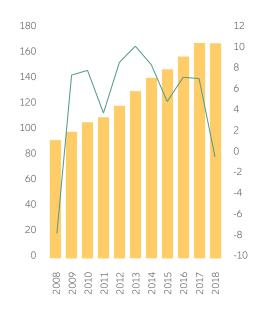


If 2018 were to be characterized by one word, "uncertainty" could well be it. From the escalating trade conflict between the US and China to the never-ending story of Brexit and mounting geopolitical tensions, political risks were elevated throughout the year. Economic activity, however, held up rather well; economic momentum even accelerated in the US over the course of the year due to a strongly pro-cyclical fiscal policy.

Against the backdrop of a still robustly growing world economy, central banks around the globe continued with their attempts to normalize their monetary policy stance. The US Federal Reserve, for example, increased its target rate range four times in 2018 and trimmed its bloated balance sheet.

For financial markets, however, this cocktail including a highly uncertain outlook, increased political risks, and tighter monetary policies was poisonous. Stock markets experienced

## The price of uncertainty Development of global gross financial assets



Gross financial asset, in EUR tn (lhs)

Change rate, y/y in % (rhs)

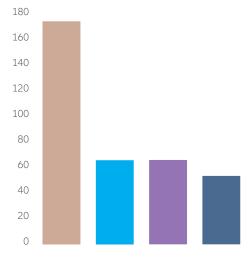
■ Global gross financial assets

Global market capitalizationGlobal nominal economic output

■ Global sovereign debt

## Sources: IMF, National Central Banks and Statistical Offices, Thomson Reuters Eikon, World Federation of Exchanges, Allianz SE.





several episodes of spikes in volatility in 2018. At the end of year, most major stock markets ended deep in the red and global equity markets lost around 12%.

Households felt the brunt of this development. Private financial assets fell by 0.1% in 2018, the first decline since 2008, the year of the great financial crisis. Gross financial assets in the 53 countries we analyzed thus remained more or less flat at EUR 172.5 trillion, corresponding to roughly 260% of global economic output and global market capitalization.

Global financial assets of households have grown at an annual rate of 4.8% over the last ten years (2008-2018), just a tad faster than global nominal economic output (+4.5% in the last decade). In per capita terms, however, long-term growth rates for each fell by almost one percentage point as a result of population growth, to 4.0% and 3.7% respectively. After taking into account the inflation rate (global average of 2.3%), average annual per capita asset growth was 1.7% in real terms. Average gross financial assets per capita came to EUR 33,690 at global level at the end of 2018.

## No place to hide

The decline in gross financial assets in 2018 was widespread. Households in China and Japan, in Mexico, the US and Canada, as well as in many European countries – from Italy in the South to Sweden in the North – suffered losses. Only half a dozen countries were able to post double digit growth, with Argentina and Turkey as growth champions of 2018 – two countries ravaged by inflation. As a result, both emerging and advanced countries ended the year in the red. For emerging markets, it was the first time in this century, for advanced markets the third time since 2008 and 2002.

Moreover, the global process of convergence, the closure of the gap between richer and poorer regions, seems to have come to a halt. In 2018, growth in gross financial assets in emerging markets was, for the second year in a row, below that of advanced markets --1.2% and -0.5%, respectively in per capita terms - and the share of emerging markets in global financial assets remained flat at around 18%. However, it is still too early to rewrite the emerging market narrative of a sustained catch-up process. Over the last two decades, the growth gap between poorer and richer regions of the world still stands at an impressive 11 percentage points on average. But the path to the rich world has clearly become much more rocky for emerging markets, against the backdrop of increasing economic belligerence.

# Savings behavior in a world without returns

Total financial assets declined in 2018, but fresh savings set a new record.<sup>1</sup> They increased by 22% to more than EUR 2,700 billion, surpassing the previous record from 2007, the year before the great financial crisis, by around 9%. Were it not for tumbling stock markets, this record purchase of financial assets would have resulted in asset growth of 2%. In other words: The decline in asset prices,

mainly equities, cost the households around EUR 3,000 billion in 2018.

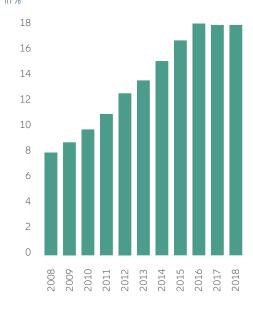
The increase in the flow of funds was mainly driven by US households, who upped their fresh savings by a whopping 46% to EUR 1,800 billion, a new record and 21% above the pre-crisis peak. US savings accounted for two thirds of global savings in 2018. Clearly, the tax reform brought some windfall profits to US households – which were duly reinvested.

## Convergence stalled

Growth of gross financial assets per capita, y/y in %



Share of emerging markets in total gross financial assets, in %



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

Emerging marketsAdvanced markets

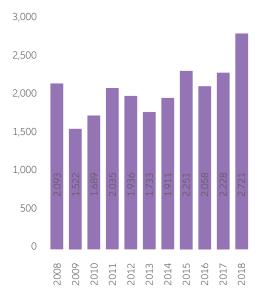
<sup>1</sup> As detailed data on inflows of funds is not available for all countries, the following analysis is essentially limited to industrialized countries.

In other parts of the world, savings efforts remained subdued. Western European households, for example, purchased new financial assets at EUR 644 billion, an increase of just 1.7% over the previous year – and way below the pre-crisis peaks of almost EUR 900 billion. Japanese households, on the other hand, even reduced their savings efforts in 2018 by around 20%.

But not only the absolute numbers are quite remarkable, even more so is the composition of fresh savings. The years of continuously falling yields have left a clear mark on savings behaviors: Savers are turning their backs on the asset class of insurance and pensions. Its share in total fresh savings has fallen from around 60% in the aftermath of the crisis to a mere 25% in 2018. In absolute numbers, the acquisition of insurance and pension entitlements is one third below the level of 2010 and 40% below the pre-crisis peak. But what are the reasons for this development? Demographic developments may play a role, with baby boomers entering retirement, particularly in the US. But generally, the need to build a nest egg for old age is even more pressing for younger generations, given the relentless aging of societies and stretched public financ-

## The price of low yields

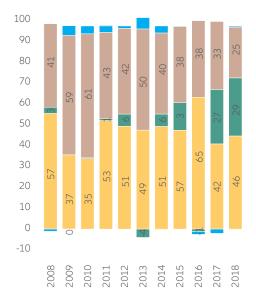




## ■ Bank deposits■ Securities■ Insurance and pensions

Other

## Acquisition of financial assets\* by asset classes, in % of total



\*Australia, EU Eastern Europe, Japan, North America, Western Europe ex Switzerland. Sources: National Central Banks and Statistical Offices, Allianz SE. es. Most people are aware of this sorry state of affairs, as many surveys show in which the (in)stability of the pension system often tops the list of perceived risks for the future.<sup>2</sup> So the most likely explanation is that the long yield winter has rendered many of these long-term savings products unattractive in the eyes of savers. But they may neglect these products at their peril: Without proper savings, old-age income could well be insufficient for future generations. Low yields work as an accelerant for the looming pension crisis.

creased by more than 80% to EUR 595 billion – in other words almost every second euro invested with banks worldwide ended up in the coffers of American banks. The only exception was Japan: In 2018 Japanese households were less keen to bring money to the banks, in accordance with overall reduced savings efforts. Nonetheless, with a share of 55% in total financial assets bank deposits remain by far the most important asset class in the Land of the Rising Sun.

At first glance, securities seemed to benefit from the low yield environment. Their share in total fresh savings increased by 2pp to 29% in 2018, the highest share on record. This development, however, is entirely due to the situation in the US: Households purchased shares, funds and other securities at the tune of EUR 860 billion – almost 50% above the level of the previous year. Again, this jump might be more of a reflection of the tax reform than of genuine interest in riskier but higher yielding products. Other savers are clearly more cautious: Be it Europe, Japan or Australia: Households were net sellers of securities in 2018

This continuous global preference for bank deposits is a little odd. The penchant for liquidity and safety might be understandable in a world of rising uncertainties and risks. It costs savers dearly, however. As most bank deposits offer no interest rates, rising – albeit still relatively low – inflation is starting to hurt. Losses suffered by households as a result of inflation if they parked their savings in bank accounts are expected to have risen in this group of countries to almost EUR 600 billion last year.

A final word on bank deposits: This asset class remained by far the most popular destination for fresh savings in 2018, for the eighth year in a row. All households in the countries where we analyzed fund flows deposited more money with banks than in the previous year; the overall increase amounted to 34%. In North America, fresh money flowing to the banks in-

## Asset classes: liquidity continues to rule

Not surprisingly, given the popularity of bank deposits as a "safe haven" and a source of guaranteed liquidity, bank deposits were the best performing asset class in 2018: Rising in-

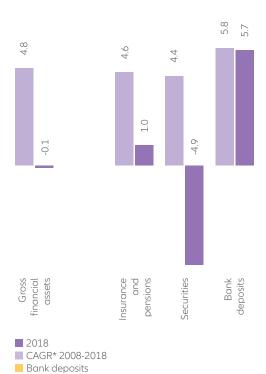
flows led to an increase in growth from 4.3% to 5.7%, on par with the average for the last decade. Banks around the world hold EUR 45.4 trillion and their share in the asset portfolio amounted to 27.8%, around 1.5 percentage points higher than the year before.

Bank deposits topped the growth ranking in all regions. Eastern Europe (+11.4%) and Latin America (10.3%) clocked the highest growth rates; this performance, however, has to be set against relatively high inflation rates in these regions, of around 7% in Latin America and more than 5% in the Eastern European coun-

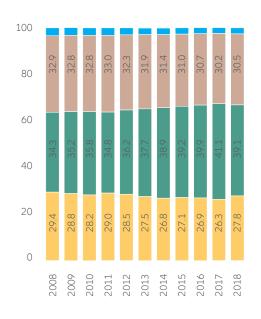
tries in focus. But also advanced markets such as North America and Western Europe saw robust increases in bank deposits, with +5.6% and +4.0%, respectively.

Despite record inflows into securities (shares, bonds, investment funds and other equities), the asset class declined by 4.9% in 2018, the first drop in over a decade. At least, the slump was less pronounced than in 2008 (-22.3%) and 2002 (-6.5%). All in all, households world-

## As safe as a bank Growth by asset classes, in %



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



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

Securities

Other

Insurance and pensions

wide have invested EUR 67.5 trillion in securities at the end of 2018. With a share of 39% (-2 percentage points lower than the year before), securities remained the most popular asset class worldwide, thanks mainly to its high popularity in the US (portfolio share of over 50%). In Western Europe, in contrast, it ranks – with a share of 27% – behind bank deposits (31%) and insurance and pensions (39%).

In contrast to bank deposits, the performance of securities also differed substantially between regions. The biggest declines were registered in Japan (-12.3%) and Asia ex Japan (-14%). For the latter, the cause lies predominantly in developments in China, where stock markets tumbled and "wealth management" products, which for a long time were extremely popular, have become less attractive owing to more stringent regulation. The slump was less harsh in Western Europe (-6.5%) and North America (-1.8%). Other regions like Latin America or Eastern Europe even saw slight increases, albeit far below the growth rates households have become accustomed to in previous years.

Private household receivables from insurance companies and pension institutions remained the second most popular asset class worldwide, with a share of 31%. These receivables came to EUR 52.7 trillion in total. Growth, however, disappointed in 2018: the 1.0% increase was the second weakest in this century; only

2008 was worse (-2.2%). This meagre growth reflects in part lower inflows but also the weak performance of underlying assets. As a result, this asset class even contracted by 0.5% in North America and grew by a mere 0.1% in Japan.

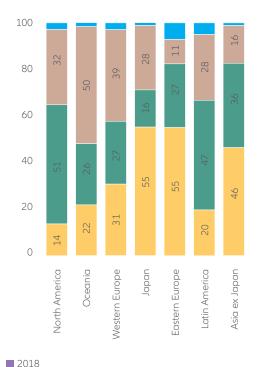
In other regions, the situation was more stable. In Asia ex Japan insurance and pensions increased by 8.2% and in Latin America by 7.1% – both figures, however, represent the shallowest increase in over a decade. In Western Europe, finally, the asset class grew by just 1.0% – with some markets like France registering negative growth – although inflows were up by 3.1% to EUR 300 billion. Nonetheless, insurance and pensions remained the most popular savings products, accounting for 39% of the portfolio in total.

# Regions: Asia's fall from grace

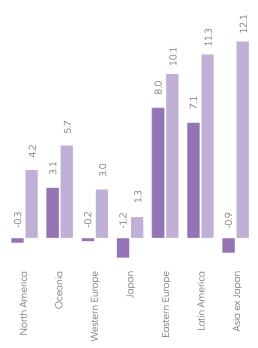
The regional growth league table used to be dominated by one region: Asia ex Japan. Not so in 2018. Not including Japan (-1.2%), the region suffered the biggest decline last year, with total financial assets contracting by 0.9%. The culprit is easily found: China. In the Middle Kingdom, the decline amounted to -3.4%, triggered by falling securities - a shrinkage that

could not be compensated by solid growth in bank deposits and insurance and pensions. Other markets in the region managed to keep assets growing, albeit at a much reduced rate: In most markets, growth rates were more than halved compared to the previous year; in Thailand, for example, growth disappeared almost completely (+0.8%).

The China effect
Asset classes as % of gross financial assets, 2018



Growth of gross financial assets, in %



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

CAGR\* 2008-2018

Insurance and pensions

Bank deposits

Securities

Other

Over the last decade, however, Asia ex Japan remains the growth champion, with average annual growth of over 12% since 2008. But 2018 can be interpreted as a warning sign that the region will become one of the main victims if the trade war should drag on, compounded by increasing geopolitical tensions. All in all, Asian households (ex Japan) had total savings of around EUR 31.7 trillion at the end of 2018. This amounted to gross financial asset per capita of EUR 9,790, more than three times as much as ten years before. The share of the region in global assets doubled in this period to 18.4%.

The other two emerging markets regions – Eastern Europe and Latin America – fared much better in 2018. Growth rates of 8% and 7.1%, respectively, are, however, also clearly below the long-term average and among the lowest since the great financial crisis. As said before, these rates are partly due to relatively high inflation rates, because in both regions asset growth was propelled by double-digit increases in bank deposits.

Household assets in Latin America have more than tripled since 2008 and totaled around EUR 3.7 trillion at the end of 2018. The region's share of global gross financial assets doubled to 2.1% during this period. In contrast, households in Eastern Europe held a total of almost EUR 2.6 trillion, or 1.5% of global financial assets at the end of 2018 (up from 1.0% in 2008). In per capita terms, too, Eastern Europe was

still trailing behind Latin America: Whereas gross financial assets per capita amounted to EUR 6,450 in Eastern Europe, they reached EUR 7,680 in Latin America.

In the wealthier parts of the world, households had to cope with declining financial assets with the only exception of Australia and New Zealand: Down Under, assets increased by 3.1% in 2018. This was, however, only half the rate of the previous year and the lowest one since 2011. Households in these two countries combined held a total of EUR 3,8 trillion at the end of 2018, amounting to financial assets per capita of EUR 126,790. With that, Australians and New Zealanders are among the richest households worldwide, almost 50% ahead of the average Western European. Whereas at the beginning of the century, Western European households used to be slightly richer than their counterparts Down Under.

Financial assets of households in Western Europe declined almost in step with North America last year (-0.2% and -0.3%, respectively). For both regions, it was the first decline since 2008. In Western Europe "only" securities declined (-6.5%), but meagre growth in insurance and pensions (+1%) and more robust growth in bank deposits (+4%) were not enough to compensate. In North America, the fall in securities was much less severe (-1.8%). But as insurance and pensions also declined (-0.5%) and given the significance of securities in the overall portfolio, even robust increases in bank deposits (+5.6%) were not sufficient to lift total asset growth above zero.

Total savings of Western European households amounted to approximately EUR 36.4 trillion or 21.1% of global assets; over the last decade, the region lost more than five percentage points. In contrast, North America lost only one percentage point over the same time span; with a share of around 46% in global financial assets, the region is by far the richest on the planet: gross financial assets per capita amounted to EUR 216,460 at the end of 2018, compared to an average of EUR 86,420 for Western Europe. Although the numbers are slightly distorted by the strong dollar of late, they remain impressive.

## **Inflation bites**

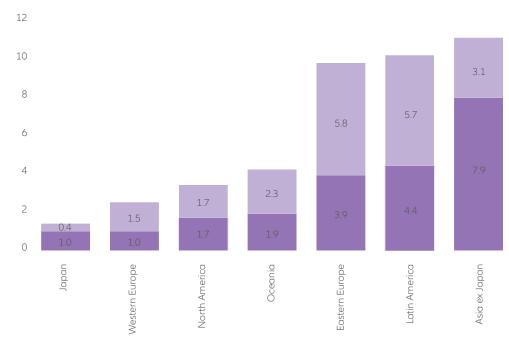
The significantly higher rates of asset growth in emerging countries are put into perspective if we include two factors in the analysis: development of consumer prices and population growth. The latter plays only a minor role; total population growth in emerging markets reduces long-term average growth in gross financial assets by 1 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.

As far as asset growth in real terms is concerned, however, i.e. minus the general rate of inflation, the effects are much more pronounced. Per capita 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 over the last decade has fallen to 3.9% (instead of 9.7%) and 4.4% (instead of 10.1%) respectively. Asia (excluding Japan) remains the clear leader in a long-term comparison even after deduction of inflation, with growth of 7.9% p.a. since 2008 (down from 11%).

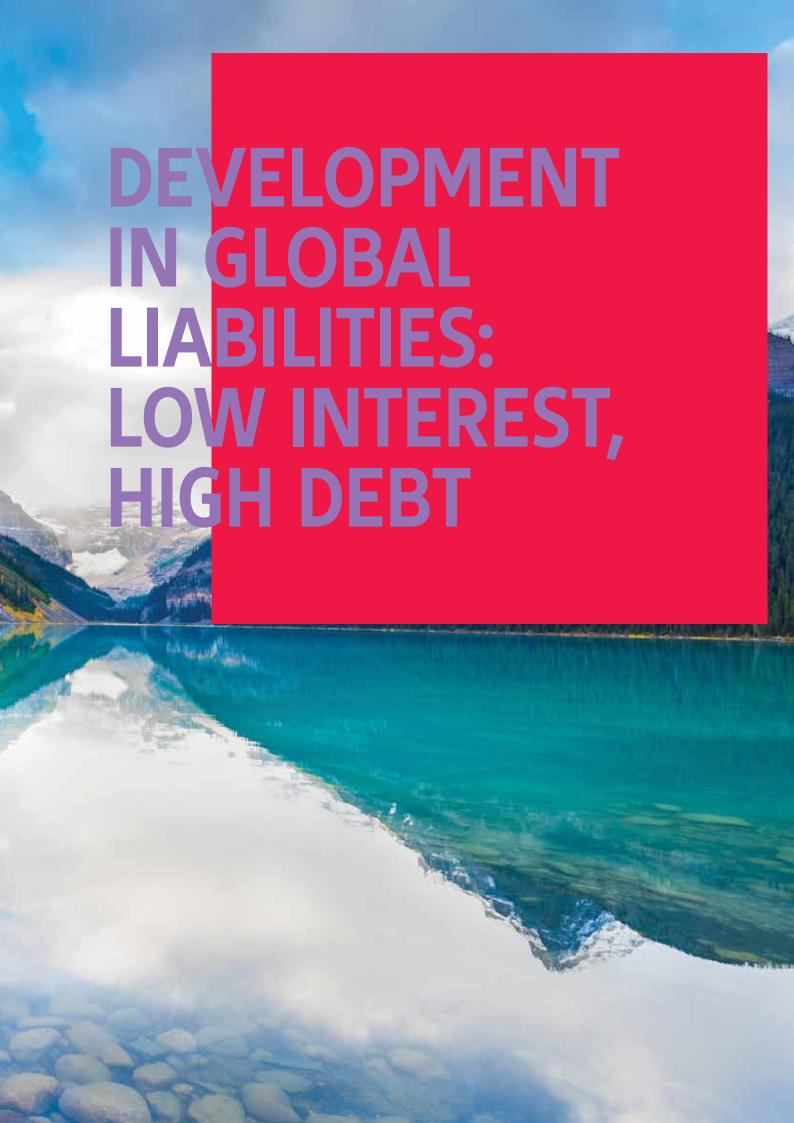
In real terms, growth differentials between advanced economies are also less pronounced, with all richer regions clocking up growth of less than 2.0% a year (real gross per capita financial assets since 2008). Western Europe is no longer growing faster than Japan, both regions manage just 1% after adjustments for inflation. From that perspective, the question of "Japanification" is no longer open.

## "Old" Europe follows Japan

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



■ Real growth, CAGR\* 2008-2018 ■ Inflation, average 2008-2018 Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE.



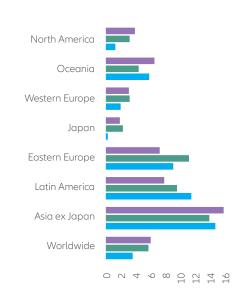
Despite the obscurity of the economic panorama, worldwide private household liabilities reached new highs of EUR 42.7 trillion in 2018. At 5.7%, the growth rate was a tad below the previous year's level of 6.0%, but also well above the long-term average annual growth rate of 3.6%. Low interest rates make borrowing more attractive. Debt growth has accelerated noticeably for the last five years and is gradually returning to levels last seen before the financial crisis. Besides low interest

rates, rising house prices are another driver for debt growth, increasing mortgage volumes. In some regions of the world, debt grew faster in 2018 than in the previous year, and at a larger rate than the total world debt growth, especially in emerging markets (+15.4%), where the interest rates are nowhere near the zero lower bound. The rate of growth slightly increased over the course of the year from 3.1% to 3.2% in Western Europe, from 7.8 % to 9.5% in Latin America, from 7.2% to 11.1% in Eastern Europe, from 5.2% to 6.9% in South Africa, and from 1.9% to 2.3% in Japan. In contrast, borrowing slowed slightly in North America, where the

## Welcome to the debt side Development of global debt burden



#### Increase of debt by region, in %



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

CAGR\* 2008-2018, in % (rhs)

2017 2018

CAGR\* 2008-2018

\*CAGR = Compound Annual Growth Rate. Sources: National Central Banks and Statistical Offices, Allianz SE. growth rate declined from 3.9% to 3.2%. Although debt growth remained high in the rest of Asia at 13.8%, the percentage increase was down compared with the previous year's figure of +15.7%. In Oceania, notorious for very high debt levels, growth declined from 6.5% in 2017 to 4.4% in 2018.

# Emerging markets finally gaining territory

Asset and liability distribution across regions are very similar. The wealthier parts of the world held almost three-quarters of the global debt (73.6%) at the end of 2018, with North America (36.5%) and Western Europe (26.7%) at the top. Nonetheless, the emerging markets have been gaining ground. At the beginning of the 2000s, the advanced economies' share was around 90%. The volume of liabilities in Latin America, Eastern Europe, and Asia (excluding Japan) has almost quadrupled since 2008, from EUR 3.1 trillion to EUR 11.2 trillion in 2018.

In the last decade the annual liability growth (CAGR) has been generally high in emerging markets such as Eastern Europe (+9.0%), Latin America (+11.4%), and Asia ex Japan (+14.6%). But there is not a single story when it comes to liability growth in the last decade. In Eastern Europe and Latin America, for example, households went on a borrowing galore in the first half of the last decade but have, since 2013, started walking on the safe side by slowing down their spending habits and curving down their borrowing levels – until last year; as a consequence, annual growth rates almost halved in that (short) period. In Asia (excluding Japan), on the other hand, credit growth remained more or less constant in both periods. Private debt has risen by an average of +14.2% per year since 2014, while between 2008 and 2013 the average growth rate was only 0.9 percentage points higher. Liabilities in the region increased almost five-fold over the decade as a whole and totaled EUR 9.3 trillion at the end of 2018, 65% of which is related to China alone. Ten years ago, this figure was about half of what it is today.

When looking at the debt levels of advanced economies, the average growth per region is markedly more demure than in their developing counterparties. North America reached household debt levels of EUR 15.5 trillion by growing on average 1.3% per annum since the global financial crisis. Western Europeans hold EUR 11.4 trillion in household debt,

on average over the last decade they grew by +2.0%. Japan is at the bottom of the growth rank, its holdings in household debt amounted to EUR 2.8 trillion as it grew by only +0.4% per annum on average. Growth in liabilities happened mainly in the second half of the decade as, after the financial crisis, households in advanced economies had to trim the debt burdens.

Japan's extremely expansive monetary policy has helped the debt growth in the second half of the decade (+1.8%) and it seems to finally be bearing some sort of "growth fruit". Households in North America had to restructure their balance sheet after the global financial crisis. The debt burden per capita rose drastically in the years preceding the crisis (CAGR 2003-2007: +7.2% ), but fell to -0.9% from 2008 to 2013 in the midst of the subprime crisis, partially due to the restructuring and down-writing of non-performing loans. Liabilities growth in the second half was more positive at +1.8% per annum as low interest rates have fostered the demand for credit. In addition, the regulations for lending and borrowing are increasingly relaxed as opposed to the stinginess immediately after the crisis. A replay of the debt crisis, however, seems not yet to be on the cards as the debt service - interest payments in percentage of disposable income – is still under control, more so in the United States (5.7%) than in Canada (14.1%). Total liabilities amounted to EUR 15.5 trillion at the end

of 2018, of which more than 90% sits with US households.

The financial crisis also had an impact on the borrowing habits in Western Europe as households showed restraint and had a very modest liability growth of only 1.6% for the decade following the crisis per annum. In the years preceding the subprime crisis, households in Greece, Ireland, Portugal and Spain had a high demand for credit, so much so that their growth rates were in the double-digit spectrum. Debts in these four countries have contracted by a total of EUR 284 billion, or an average rate of 2.1% per year, since the end of 2008. In other Western European countries, however, debts rose by an average of 2.4% per year in the same period or EUR 2.2 trillion. In the region as a whole, the trend towards debt growth has picked up again slightly since 2015. After borrowing stagnated in 2012 and 2013, annual growth accelerated continuously and reached 3.2% last year, the highest growth rate since 2008. Total debt in the region thus came to around EUR 11.4 trillion.

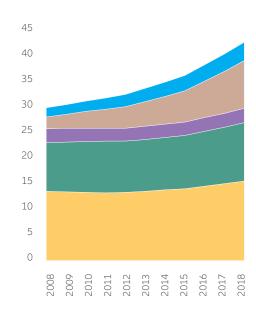
Private liabilities in Oceania grew much faster than in Western Europe and North America, with annual growth averaging 5.8% over the last decade. However, last year the growth rate "down under" was still higher than in Western Europe at 4.4%, but slowed down from 2017 onwards +6.2%, while private debt totaled around EUR 1.6 trillion. Rising house prices, in particular, have driven up credit growth, but contracted in the last half of 2018, thus exhibiting milder growth rates.

# Regional differences stay the same

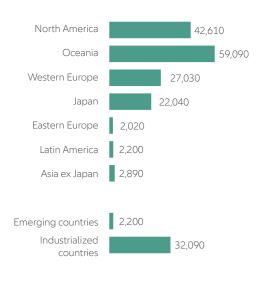
To the seasoned reader perhaps unsurprisingly, households in Oceania have the highest debt per capita on a regional comparison at EUR 55,090 in 2018. Followed at a distance by North America with per capita debt levels of EUR 42,610. More disciplined or constrained advanced economies such as Western Europe (EUR 27,030) and Japan (EUR 22,040) lag far behind.

Per capita debt in the emerging regions proved to be more tame: Eastern Europe (EUR 2,020), Latin America (EUR 2,200) and Asia (excluding Japan) (EUR 2,890) were at a similar level. If we look at emerging Asia without including the industrialized countries in the region, Israel (EUR 18,805), Singapore (EUR 36,570), South Korea (EUR 27,420) and Taiwan (EUR 19,580), the average drops to EUR 2,260.

## Asia's weight in global debt on the rise Development of global debt, in EUR tn



#### Debt per capita 2018, in EUR



North America
Western Europe
Japan
Asia ex Japan
Others

Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE. The debt ratio differs from region to region as well (i.e. liabilities measured as a percentage of nominal economic output). Following the trend of liabilities per capita, Oceania is a front-runner of the debt ratio, it decreased slightly year-on-year from 122.3% to 121.6% last year. The panorama was not always debt-saturated, the ratio has increased by 14.3 percentage points over the course of the last decade.

A reversal in the trend of ratio of debt to GDP in North America took place after the financial crisis. In 2009 it was as high as 98.6%, but since then the ratio has more or less continuously decreased and at the end of 2018 it was at 80.5%. While this figure is still slightly above the advanced economies rate of 77.8%, it is not yet a cause of concern. In Western Europe, the ratio came to 74.1% last year, only slightly below the figure exhibited in 2008 at the height of the financial crisis (75.6%) and very much in line with the advanced economies average. Japan is a special case -weak economic growth and a rapidly aging society, place its ratio at a very modest 63.2%, well below its peers.

Amongst emerging markets, the ratio of household debt to gross domestic product was lowest in Eastern Europe at 23.6%. There are many factors that add up to this figure: from non-performing loans, to households' bankruptcy, to general economic malaise. However, credit where credit is due and where credit rate has increased, the ratio has been rising since the beginning of the 2000s (7.7%). Rome – or rather a higher debt-to-GDP ratio – is not built in a day. In Latin America, the ratio is 6 percentage points higher (29.6%), almost double the level at the beginning of the century. No country in the region has managed to surpass the 50% threshold, but Chile is quite close at 48.6% and if it grows in 2019 by its tenyear average (11%) it might be able to surpass that line. Asia (excluding Japan) is a different story, the debt ratio was 63.2% at the end of last year, more than twice that of Eastern Europe. In the last three years alone, it jumped by almost ten percentage points, mimicking the US development in the run-up to the subprime crisis. As a result, in some countries, the debt ratio is higher than a kite: Malaysia struggles to keep indebtedness at bay, but still has a ratio of 83.4%, Thailand is also highly indebted when compared to its regional and emerging peers at 78.4%. Last year, China leaped over the 50% threshold and, over the course of the year, went from 49.8% to 54%. All of these Asian countries are higher than the emerging market average of 40.3%.

At a global level, the debt-to-GDP ratio was stable when compared to last year's as it went from 65.0% in 2017 to 65.1% in 2018, not much of a change. World GDP growth in our sample was 5.5% in 2018, while private liabilities increased by 5.7% keeping the ratio stable.

## Less leverage

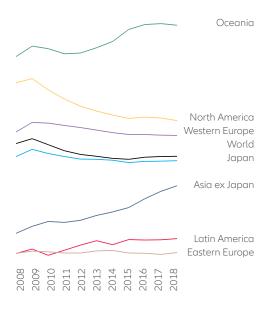
Another indicator worth looking at is the leverage ratio or liabilities as a percentage of financial assets. The higher the ratio, the higher the degree of leverage and the higher the risk. At the ten year mark of the global financial crisis a clear trend in the leverage ratio can be observed. Households have become more disciplined and, as a result, the leverage ratio is now at lower levels than it was in 2008.

## Debt in step with economy

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



Liabilities as % of nominal GDP

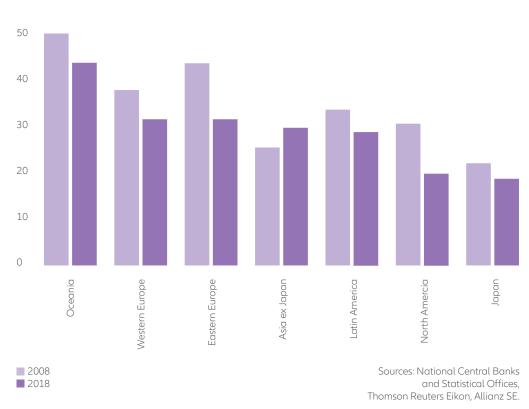


Global liabilitiesGlobal nominal GDP

Sources: National Central Banks and Statistical Offices, Thomson Reuters Eikon, Allianz SE. On a global scale, liabilities as a percentage of financial assets was at 31.3% in 2008, as of now, the ratio is much lower at 24.7%. In general, all regions observed a decline in the ratio of liabilities to financial assets except for Asia (excluding Japan) where it went from a very tame 25.3% to a more robust 29.5%. It was much higher in some countries, for example Indonesia (45.9%), Malaysia (46.7%), South Korea (48.0%) or Thailand where it reached an alarming 58.1% at the end of 2018.

As for the rest of the regions, the ratio declined. In Eastern Europe it dropped to 31.3% and in Latin America 28.6%. The average leverage ratio in emerging markets is as of 2018, 29.1%. In the advanced markets, the average leverage ratio is 23.8%. Oceania is unsurprisingly leading the debt charts with a liabilities to financial assets ratio of 43.4%, while the US has learned from their mistakes, with their leverage ratio falling to 19.7% from a 30.4% at the height of the crisis. Western Europe also made advances with its leverage ratio, over the course of a decade, households went from a ratio of 37.6% to 31.3%. On the other hand, Japan has not seen much of a change since

## Less leverage – except in Asia Liabilities as % of financial assets



2008 (21.9%), today its debt ratio has fallen to a tame 18.6%. With the low level of interest rates, it is – at present – hard to imagine debt leverage and debt services causing a systemic risk, however countries like Norway (77%), Australia (46.7%), Denmark (45.1%), Greece (43.8%), and Portugal (41.5%) should be weary of their borrowing behavior.

capita assets of EUR 173,850 last year after deduction of liabilities. On the other hand, Eastern Europe was the region with the lowest net financial assets. At the end of 2018, households had an average of EUR 4,430 per capita. This means that North Americans had 39 times the assets of Eastern Europeans. Nevertheless, this factor was as high as 68 ten years ago.

# A large wealth gap between the regions

When looking at financial assets free from the weight of liabilities we are left with net financial assets. This year net financial assets fell slightly from 2017's record high of EUR 132.4 trillion to EUR 129.8 trillion on a global level. Debt growth (+5.7%) surpassed asset growth (-0.1%) which made net wealth fall by 1.9% in 2018, clearly lower than the average growth of 5.5% in the last decade.

When looking at the regional distribution of wealth, we see the same story over and over again: huge gaps in net financial assets between households in richer regions and in poorer ones. North America remains the richest region in the world, with average per

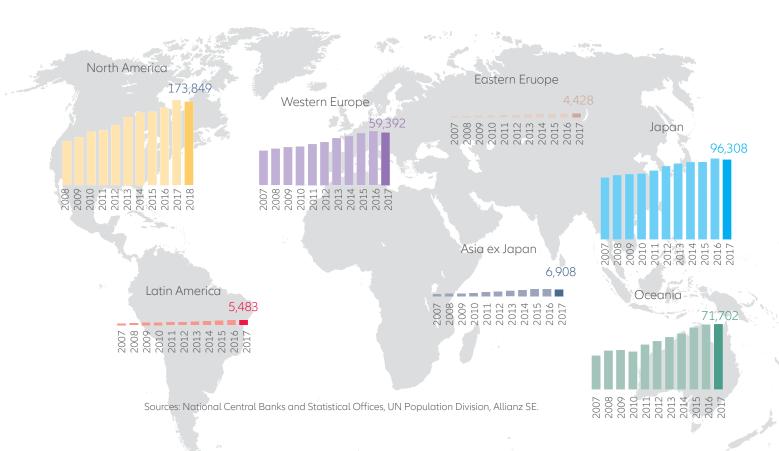
Japanese households are also having a prosperous moment, their net assets per capita holdings were EUR 96,310 at the end of 2018. However, they used to lead the charts in Asia Pacific, but there are new winners in town: Singapore with net assets per capita of EUR 100,370, closely followed by Taiwan at EUR 97,850. Due to high debt levels, average net financial assets of households in Australia and New Zealand came to EUR 71,700 per capita on average, well below the figure for Japan. Leaving liabilities out of the equation, households in Oceania had average gross financial assets of EUR 126,800 per capita, putting them ahead of their Japanese counterparts (EUR 118,350), but also more in debt. In Western Europe the net financial assets per capita were less impressive at the end of 2018, coming in at EUR 59,390. The gap between the east and the west of Europe has not narrowed nearly enough compared to their Eastern neighbors (EUR 4,430 net assets per capita).

# Eastern Europe claims the top spot

Net financial assets per capita have grown very dynamically over the last decade in emerging markets. But given the rapid increase in liabilities and the drop in assets in 2018, Asia (ex. Japan) is no longer the only growth champion. Net per capita financial assets in this region have grown at a rate of 10.2% per year since 2008. However, last year

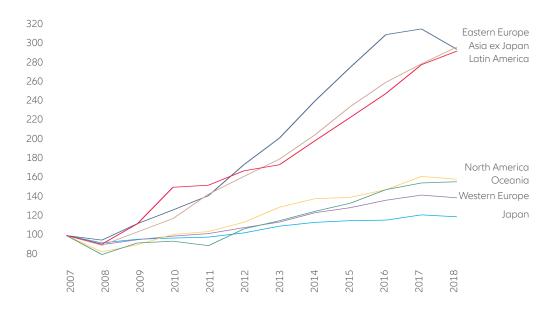
the region's net wealth decreased by 6.7% mainly due to a dip in Chinese households' net wealth (y-o-y: -10.6%). In Eastern Europe, per capita assets have risen at an average annual rate of 10.3% in net terms since 2008, owing to a decline in debt growth. Latin America, finally, clocked a growth rate of 10.1% over the decade. Both regions had positive growth rates in 2018 as well, of 6.3% and 5.1%, respectively.

Same old story
Net financial assets per capita in EUR, 2018

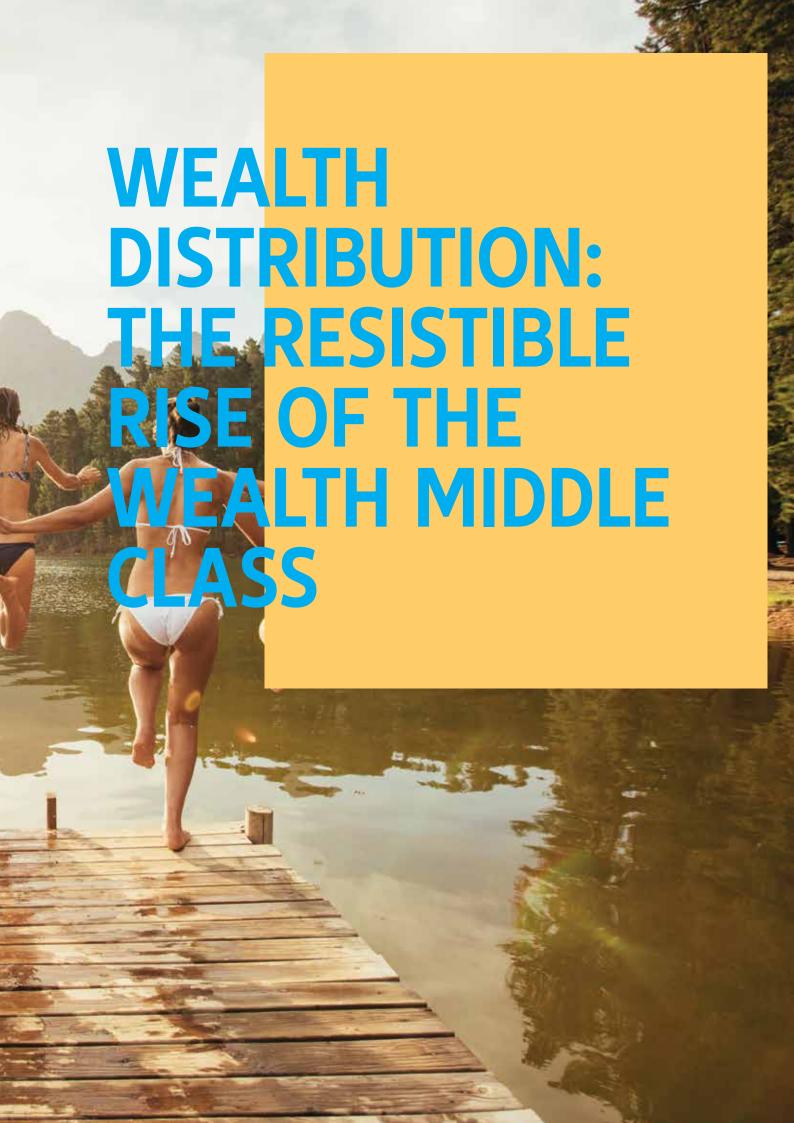


As far as advanced economies are concerned, North America (+4.6% in net financial assets per capita) has won the average decade growth crown, despite last year's drop of 1.8%. Oceania is the very close contender with average long-term growth of 4.6% (+0.8% in 2018), well ahead of Western Europe (average growth of +3.1% per year over the last decade and -2.0% in 2018). Japan comes bottom of the league, with average growth of 1.7% per year and -1.7% in 2018.

## Eastern Europe claims the top spot - by a razor thin margin Development of net financial assets per capita by region, index (2007 = 100)



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



The last decades were characterized by two opposing trends: less inequality between countries, exemplified by the rise of a new global wealth middle class, and more inequality within countries, in particular in industrialized countries. One of these trends stalled in 2018: For the first time in over a decade, the global middle class did not grow. Just a bump in the road or a turning point?

It's undeniable that the rise of the global wealth middle class is deeply intertwined with the process of globalization. The integration of formerly marginalized countries into global value chains - from Eastern Europe to South-East Asia – was the spark that ignited an explosion of wealth in these countries. Many thought of this process as a natural, quasi-automatic development that leads to an ever more integrated world, governed by shared principles and rules. Although cracks in the global edifice were visible through all the years, in 2018 they became glaring as the trade dispute between the US and China escalated. If anything, the politics of US President Donald Trump have debunked the blind faith in the irreversibility of globalization. The upshot: Further convergence in wealth between

countries, i.e. between the rich West and the poorer East, can no longer be taken for granted. 2018 is a strong reminder that if the wheel of globalization is turned back the great success story of the past – the parallel reduction of poverty and increase in prosperity in many parts of the world – might unravel, too.

It would be a great pity. Because the advancements are impressive – but not yet complete.

# Huge progress: The global perspective

As in previous years, when examining the global context of wealth distribution, i.e. the relationships between countries, we have divided all households/individuals into global wealth classes. This classification is based on worldwide average net financial assets per capita, which stood at EUR 25,360 in 2018, 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 2018, asset thresholds for the global wealth middle class are EUR 7,600 and

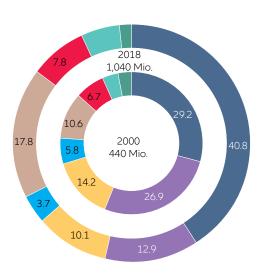
EUR 45,600. The "low wealth" (LW) category, on the other hand, includes those individuals with net financial assets that are below a EUR 7,600 threshold, while the term "high wealth" (HW) applies to those with net financial assets of more than EUR 45,600 (for details on how the asset thresholds are set, see Appendix A).

At the end of 2018, roughly 1,040 million people belonged to the global wealth middle class – which is more or less the same number of people as one year before. Compared

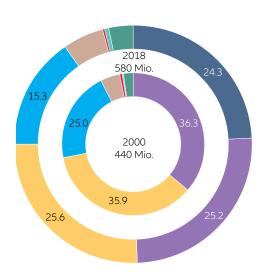
to the beginning of the century, however, a whopping increase of almost 140% or 5% p.a. can be noticed. Moreover, the composition of the middle class has changed quite substantially: While the share of the Chinese and other Asians increased by more than 20 percentage points, the share of people coming from Western Europe, North America or Japan fell by 20 percentage points. There is therefore little doubt about what the driving force behind the new global middle class is: its emergence primarily reflects the rise of Asia.

The Asian century

Wealth middle class by region, in %



#### Wealth upper class by region, in %



China
Western Europe
North America
Japan
Latin America
Rest of Asia
Eastern Europe
Others

Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE. The change in the global wealth upper class is more modest: It grew by more than 30% or 1.6% p.a. to around 580 million people, also in line with the 2017 figure. The set-up of the upper class, however, changed dramatically. In 2000, it was made up almost exclusively of Western Europeans, Americans and Japanese, accounting for well over 90%; this share has dropped to 66%. Hence, a quarter of the upper class speaks Chinese today.

Where do the new members of the wealth middle and upper class come from? In the case of the middle class, the main source is social rise from lower classes. Almost 600 million people have moved up to join the ranks of the global wealth middle class since 2000 - and two thirds were recruited from China alone. But social descent occurred as well: Around 50 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 phenomenon affects only the US and Western Europe. A further source is simply population growth to the tune of 120 million people. But at the same time, 160 million people also left the middle class, with the overwhelming majority considering themselves now part of the global wealth upper class.

Accordingly, the biggest source for the increase in the number of people belonging to the global wealth upper class is the rise from the middle class. Population growth of around 50 million people was just enough to compensate for the "bloodletting" in the old industrialized countries.

A final word on the global wealth lower class. With 3,500 million people, it is not only by far the biggest class - more than two thirds of the population in the countries analyzed are considered as "low wealth" – but its size has also barely changed since the turn of the millennium. The class, however, is far from static. The unchanged total number disguises huge movements: As said before, roughly 600 million people were able to leave the low wealth class behind them and joined the middle class. But as the population grew in equal dimensions, this does not show up in the overall figures. Furthermore, there was also – a much smaller - movement in the opposite direction: around 16 million people - all of them Western Europeans – moved down from middle to low wealth class.

When analyzing the movements between classes, one thing becomes evident: Whereas Asian countries – first and foremost China – can look back on two decades of mostly social rise, the picture for Western Europeans and Americans is bleaker. In fact, it's only in these two regions that the low wealth class

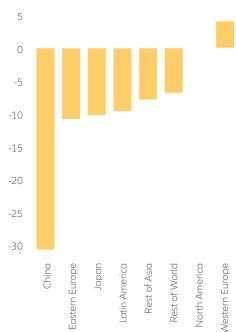
has increased – by 4% of the population in Western Europe – and the high wealth class has decreased – by 6% and 9% of the population in Western Europe and North America, respectively –, when adjusted for population growth. The scars of the crisis years have not yet healed but remain visible in the wealth distribution. In that regard, even Japan fared better, reducing the number of people that belong to the global low wealth class by around 10% of the population.

# Much room for further development

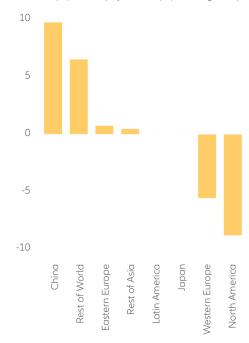
Impressive as the rise of many Asian and particularly Chinese households may be, the story is by no means told to the end. A simple calculation shows: If other heavily populated countries such as Brazil, Russia, Indonesia and in particular India would have had a level and distribution of wealth comparable to China, the global wealth middle class would be boosted by around 350 million people and

### Europe's and America's lost decades

Change in low wealth class population since 2000, in % of total population (adjusted for population growth)



Change in high wealth class population since 2000, in % of total population (adjusted for population growth)



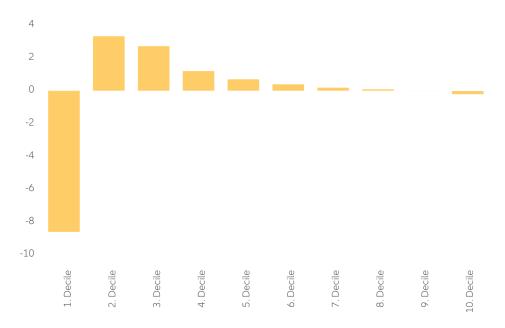
Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE. the global wealth upper class by around 200 million people.

Moreover, the progress over the last two decades notwithstanding, the concentration of wealth is still extremely high from a global perspective. This becomes clear if we break down the overall population of the countries we have analyzed into population deciles based on net financial assets.

This shows that the richest 10% worldwide together own roughly 82% of total net financial assets; among them, the richest 1% – with average net financial assets of above EUR 1 million – own almost 43%. On the other end of the spectrum, for the lower half of the population, about 2.5 billion people, less than 1% is left. The latter figure must be interpreted with caution, however, as those with the fewest assets also include many people from the richest countries who are in debt; the "poorest" global population decile actually has negative net financial assets, but high levels of debt can-

# The winners have to share

Change in share of total net financial assets by global population decile, in percentage points



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

not necessarily be equated with poverty. The Scandinavian countries are a good example of this. Households in Denmark and Sweden are among the most highly indebted worldwide, with up to 30% of the population there having higher liabilities than financial assets. However, these high debts are generally likely to be offset by tangible assets, particularly property. A happy home owner in Denmark should not be confused with a penniless day laborer in India.

As a consequence of this high global wealth concentration, there is also a wide gulf between the global median (the so-called "middle value" separating the richer half from the poorer half of the global population) and the global average of net financial assets. Whereas median net financial assets amount to EUR 2,260 per capita, the average figure is more than ten times as high (EUR 25,360).

At least, the trend of wealth concentration is moving in the right direction. Compared with 2000, the share of the richest decile of the population in total assets dropped by more than 8 percentage points. In contrast, all other population deciles increased their share of the global wealth pie, with the exception of the poorest decile, where debt continued to rise. Also with regard to the median value of net financial assets, the last two decades have seen much progress: The median value grew by 11.9% p.a. since 2000, almost three times as fast as average net financial assets which increased by 4.4% over the same time span.

So, the overall development is rather encouraging – even if there is still undoubtedly a very long way to go. This becomes evident when global wealth concentration is compared to the situation within countries: The share of the richest decile in national wealth is "only" 53% (unweighted average of all countries analyzed).

In conclusion, the distribution of financial assets remains extremely unequal at global level. However, the years of rampant globalization had left their positive mark: The global middle is becoming broader and richer. Recent political developments, however, are about to break the decades long trend towards greater global openness.

# Mind the gap: The national perspective

By average net financial assets, the USA are the richest country in the world, not least thanks to the strong dollar. But if we drew up our rankings of the world's richest countries based on median values, they would look different. The US would slide by a whopping 12 ranks from the top spot to 13th place. Also Singapore (from third to sixth place), Sweden (from seventh to 12th place), Denmark (from tenth to 22nd place) and UK (from 12th to 16th place) would drop significantly. In all these countries the difference between median and average values tend to be bigger than in most other countries. For all countries analyzed, the

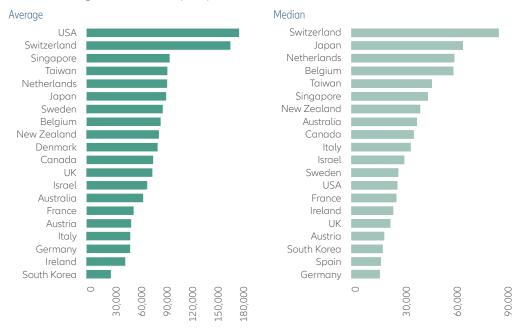
(unweighted) average for the median value expressed as percentage of the average value is 44%. In the US, in contrast, this number is just 15%; in the UK and Sweden it comes to around 30%.

But there are also several countries for which the opposite is true. Japan, Belgium and Ireland climbed the rankings each by four places; Australia and Italy jumped by six and seven places, respectively. Accordingly, the gap between median and average values is much smaller in these countries. In Australia, for example, the median value amounts to 56% of the average, in Italy to 65%, and in Japan to 68%.

The alternative rankings naturally only provide a snapshot of the current situation. The long-term development of wealth distribution

# The alternative ranking

Median and average net financial assets per capita 2018, in EUR



Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE. is certainly more interesting. To work this out, we have looked into the relation between median and average net financial assets and how it developed over the last two decades. Where has the gap between median and average values narrowed, indicating an increase in prosperity, particularly in the middle of society? And where has the gulf widened, a sign that the richest members of society are moving further and further away from the middle?

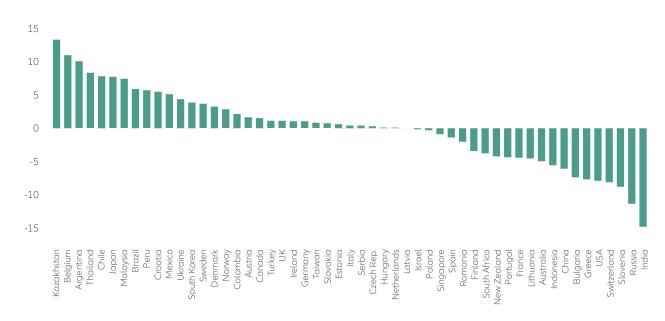
since the turn of the millennium (increase of more than three percentage points) as countries in which distribution has deteriorated (decrease of more than three percentage points). Both groups include 15 countries, whereas 22 countries have seen almost no change in the relation between median and average values. In contrast to the general perception, wealth distribution seems to be rather stable in many countries, including Germany.

What is striking is that of the countries we have analyzed, there are as many countries in which distribution has significantly improved

The former group – countries in which the gap between median and average net financial

### Not only the usual suspects

Median wealth in percentage of average wealth per capita, change since 2000 in percentage points



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

# Calculation of the Allianz Wealth Equity Indicator (AWEI)

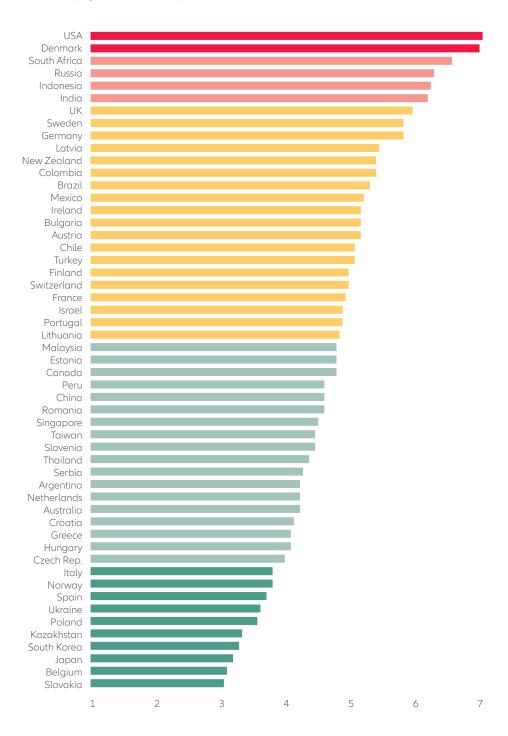
The AWEI is based on five different parameters for wealth distribution:

- The share of the national wealth middle class in total net financial assets a measure of the middle's participation in national prosperity; weighting: 20%
- The share of the richest decile of the population in total net financial assets and the change since 2000 a measure of the concentration of wealth at the top; weighting: 15% (share) and 5% (change)
- The share of the lower half of the population in total net financial assets and the change since 2000 a measure of the so-called "trickle-down" effect; weighting: 15% (share) and 5% (change)
- Median net financial assets as a percentage of average assets and the change since 2000 – a measure of the degree of distortion in wealth distribution; weighting: 20% (share) and 10% (change)
- Growth in net per capita financial assets since 2000 a measure of the general increase in prosperity; weighting: 10%

The AWEI thus takes into account both structural features of wealth distribution and changes in these, with a lower weighting being given to the latter. The primary aim of the new indicator is to obtain as comprehensive a picture as possible of the current situation. However, changes play a part insofar as they influence perceptions: for example, wealth concentration of 60% will be interpreted differently depending on whether the figure was previously 70% or 50%.

The original values for the parameters are transferred to a scale of 1 to 7, in which 1 represents the best figure. The distribution of individual figures is based on a normal distribution, i.e. the parameter values are assessed not on the basis of normative guidelines – e.g. a wealth concentration of only 40% is very good – but instead based on the relative distribution of degrees of wealth. In view of the difficulties involved in drawing up standardized normative criteria for such culturally different societies as those that we are dealing with in this analysis, the adoption of such a relative perspective seems to make sense. However, that also means that the country with the best indicator value may not necessarily be a country in which wealth is perfectly distributed. It is simply the country in which distribution is least distorted among the countries analyzed here. The overall indicator AWEI is the weighted sum of the individual parameter values, and can range from 1 (very good) to 7 (very poor).

# Allianz Wealth Equity Index: Broad Spectrum



Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE. assets has narrowed – include many Latin American countries. Although assets are still distributed very unequally in many of these countries, improvements in the last two decades have been quite impressive. Also, some Asian – Thailand, Malaysia and South Korea – and Eastern European countries – Croatia, Ukraine and Kazakhstan – appear here. But there is only one country form the eurozone (Belgium) but two Scandinavian countries (Sweden and Denmark).

At the other end of the spectrum are some "usual suspects", like the US, Russia and India. But also many European countries belong to the group of countries in which wealth distribution has become less equal: Finland, Portugal, France, Greece and Switzerland. Again, these findings underline the challenging situation in Europe after the crisis. In addition to India, two other Asian countries appear here: Indonesia – and China. It's a sign that, with growth slowing down, wealth dynamics in the Chinese society are becoming more uneven. While the first years after the opening of the economy were dominated by asset accumulation through savings, gains in value have also played a bigger role more recently, i.e. access to higher-yield investments - which is generally likely to be easier for households that are already wealthier.

As well as analyzing median and average assets, there are naturally many other indicators that can be used to measure the extent of equality or inequality in wealth distribution. These include the Gini coefficient, for example, which serves as a comprehensive indicator. 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.3 We therefore decided last year to introduce a new indicator, the Allianz Wealth Equity Indicator (AWEI), which takes into account various other parameters relating to wealth distribution and its development over time. See the box above for information on how the AWEI is calculated.

The AWEI underlines once again the findings of previous analyses. The US has a significant distribution problem; the same can be said for the UK, South Africa, Indonesia, India and Russia. The latter two have also suffered huge drops in their rankings, compared to last year, by 23 and 18 places, respectively. There is only one other country that saw a comparable decline in its ranking: China. But thanks to rampant asset growth in the past, it has yet to enter the "red" area of the AWEI.

Like last year – and somewhat surprisingly – Denmark, Sweden and Germany also rank among the countries where wealth distribution is strongly distorted, although development here has been moving in the "right" direction, at least in the last few years. The reasons for this relatively high level of inequality can be found in high debt levels among large parts of the population (Sweden and Denmark) or the general shortage of capital-funded pension schemes as well as delayed reunification (Germany).

At the other end of the spectrum, rankings have not much changed over the previous year, with one exception: Japan jumped 23 places and is now number three among those countries where wealth distribution is relatively balanced. It seems as if the aging of the society, coupled with permanently low yields, has a wealth leveling effect. But as financial assets grew only at a snail's pace over the last decades in Japan, this more even wealth distribution is nothing to cheer about.

The group of countries with a relatively balanced wealth distribution is completed by some Eastern European countries – such as Slovakia or Poland - and some Western European countries, namely Belgium, Spain, and Italy. As regards the Eastern European countries, their late start to building up private assets is likely to have played a crucial role in their good performance in the AWEI. The case of Spain and Italy is a little more complicated. Wealth distribution here has tended to become more unequal since the crisis, particularly in Spain. However, these countries still have a solid base to fall back on; the situation in these countries with regard to asset distribution is nowhere near as bad as in northern Europe, for example, not to mention the US. Belgium, on the other hand, achieved good to very good scores in all areas. We can only speculate here about the reasons for this, although the fact that Brussels is the capital of Europe – and thus a magnet for well-paid jobs - is certain to have had an influence.

In conclusion, the new indicator AWEI helps to provide a more nuanced picture of wealth distribution. In some cases, it substantiates the general perception, think of the two opposing poles USA (very unequal) and Japan (very equal). In other cases, it produces surprising insights, think of the Scandinavian countries (rather unequal) or Spain and Italy (rather equal). So, the AWEI can offer a more complex picture of wealth distribution that eludes simple generalization.

# REGIONAL DIFFERENCES: FINANCIAL ASSETS IN INDIVIDUAL REGIONS

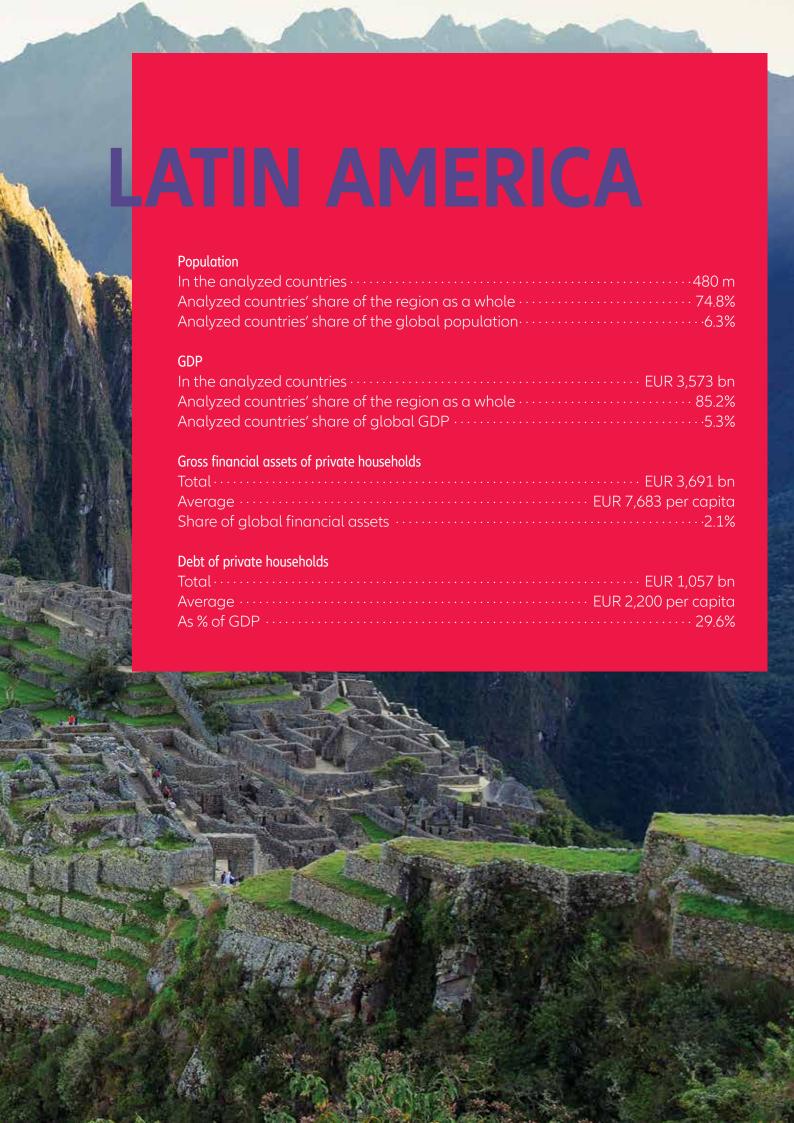
**57** Latin America **67** North America **77** Western Europe **87** 

Eastern Europe

Asia

105 Box: Japan's older investors have a higher appetite for risk than their younger peers

113 Australia and New Zealand



# A mixed picture

A political rollercoaster and a lackluster economic performance prevailed in Latin America in 2018. The region suffered from a weakening global economy and policy uncertainty from the newly elected governments. Moreover, the commodity markets underperformed, thus tainting the recovery in Brazil. Nonetheless - and regardless of the recession in Argentina - the region's overall economic growth improved slightly from that of 2017: In 2018, the

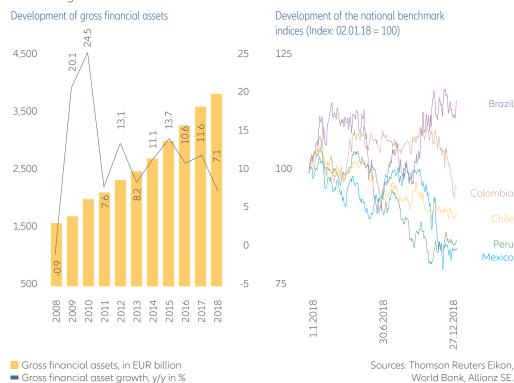
real GDP growth of the countries in the scope of our study<sup>4</sup> was 2.6%, up from 1.8% in 2017. It was mainly driven by private consumption growth which reached 7.6% year-on-year from a 7.3% growth in 2017.

As a consequence of this, the growth of net financial assets in Latin America slowed down from a double-digit growth in the last few year years (CAGR 2008-2018: 13.4%) to a growth of 6.2% last year. Despite this bump in the road, net financial assets in Argentina, Brazil, Chile, Colombia, Mexico and Peru have increased by EUR 1.9 trillion since 2008.

Brazil

Peru Mexico

# Weathering the storm



<sup>4</sup> Argentina, Brazil, Chile, Colombia, Mexico and Peru.

In gross terms, growth in financial assets slowed down from the 12% growth in 2017 to a 7% growth in 2018. However, it still outperformed that of industrialized countries(-0.03%). As a result of this growth, Latin American financial assets increased to around EUR 3.7 trillion. The most dynamic asset class was cash, demand and savings deposits which grew by 10% and reached a EUR 724 billion in total. However, the largest holding of assets are still securities (47% of all financial assets), which are mainly equity in unincorporated businesses and grew by 6.3% in 2018, reaching a total value of EUR 1.7 trillion. This is quite a remarkable performance, against the backdrop of the region's stock markets' tough year in 2018. The MSCI Emerging Markets Latin America fell by 9.27% year-on-year after having climbed around 20% in 2017. With the exception of Brazil (15% growth) and Argentina (1%), the benchmark indices in all the countries we analyzed reported losses. The largest slump was recorded in Mexico (-15.6%) because of NAFTA uncertainties, trade war fears and new administration uncertainties. At the end of 2018, the stock exchange barometers in Peru (-13.8%), Chile (-8.3%), and Colombia (-2.9%) suffered because of global economic sluggishness.

# Different asset structures in individual countries

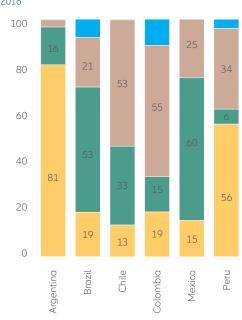
The election of Jair Bolsonaro was good for markets in 2018. Brazil is slowly but surely lifting itself from the recession it suffered in 2015 and 2016, growing at around 1% both in 2017 and 2018. The growth prospects of Brazil's GDP were dampened last year by the fall in commodity prices and US-China trade tensions, as the Asian giant is its largest commodity export destination (19% of exports). Despite the modest growth, things are looking up for Brazil, the new administration's market-friendly reformist agenda has helped boost consumer confidence by 4.6% in 2018 and thus consumption (4.8% y-o-y). Unemployment remains an issue hard to tackle for Brazil, it remained high and was reported as 12.3%; it increased slightly from the figure of 2017 (11.8%). However, despite this, Brazilian household income increased by 4.3% on a year-on-year basis and inflation stayed at bay at 3.6%. The gains in Brazil's leading stock index (BOVESPA) benefited households, as they hold 53% of their assets in some form of shares, funds or other equity interests. The growth of securities in the Brazilian household portfolio was 14% at the end of 2018, to EUR 1.0 trillion. Insurance receivables (EUR 408 billion) had a less dynamic growth at 6.9%, bank deposits (19% of the portfolio) were up by 9.4%

in 2018 which showed a slight acceleration from the 8% growth of 2017. All in all, Brazilian household savings reached EUR 1.9 trillion at the end of 2018 (+EUR 186 billion / +11%) which accounts for 53% of the gross financial wealth in the region. Short-term assets grew at a faster rate than those with longer maturities, perhaps a sign of the times?

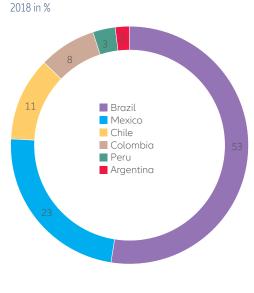
With EUR 860 million, Mexico, the second largest economy in the region holds only 23% of the financial assets in Latin America as of 2018. Mexican households are investing 60% of their savings in securities or equity which decreased by 5.3% in 2018. The new government cancelling infrastructure projects and going back on education reforms rippled in the market, and the IPC (stock market index) suffered a two digit dip (15.6%). As a consequence, gross assets held by household's in Mexico decreased by 1.4%, according to our estimations, and net wealth contracted by 3.3%. All asset classes had a considerable growth slowdown: insurance receivables (25% of total assets) grew by

# Asset structure by countries





# Share of regional financial assets by country,



Bank deposits
Securities
Insurance and pensions
Other

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

5.4% (after 12.8% in 2017), and cash and bank deposits (15% of total assets) increased by 5% (8.5 % in 2017). Liabilities also slowed down to a 7.4 year-on-year growth (from 9.5% in 2017), recording the weakest growth since 2009. It is not all bad news, consumer confidence in Mexico increased by 11.7% in 2018, perhaps because of the local popularity of the incumbent administration. Inflation was kept under control at 4.9%, unemployment stayed stable at 3.3%, household income grew by 8.2% and consumption increased by 2% at the end of 2018. Hopes of reforms and prosperity are widespread amongst the population, but the sentiment has failed to reach the markets due to the policy uncertainty that the new government awakens.

Households in Argentina, Chile, Colombia and Peru share the remaining quarter of the region's wealth and represented around 30% of the Latin American population in our sample. Asset growth ranged from 5.3% in Peru to 34.5% in Argentina, however this figure should be taken with a pinch of salt given the 33.4%

inflation rate in the South American country in 2018. Early optimism for Macri's administration has faded out. Inflation remains out of control, and real GDP continues to contract, in 2018 by 2,5 %, after a break of growth in 2017 (3 %). Private consumer spending fell by 2.5 % in 2018, after growing by 3.8 % in 2017. As a result of this, Argentine households are seeking refuge in foreign assets. Bank deposits and cash represent 80.8 % of the households' asset portfolio. In contrast, insurance provisions are barely 3% of household investments as a result of the pension fund nationalization in 2008 when it was 11.1 % of the households' financial assets.

In Chile and Colombia the insurance assets outweigh the rest of the asset classes and are 53% and 55% of the portfolio, respectively. The growth in insurance receivables in Chile slowed down to 5.2% from a ten year average growth of 9.1 % (CAGR 2008-2018). Pension reform plans put forward by the Piñera administration to increase the replacement rate have influenced this. In Colombia, however, insurance asset growth was strong at 15.3% year-on-year because of a new pension decree that allows to allocate funds in different risk profiles for higher profitability, introduced in 2018.

# Debt under control in Latin American households

household debt in Latin America, for the countries in the scope of our study, is estimated to total EUR 1.1 trillion at the end of 2018.

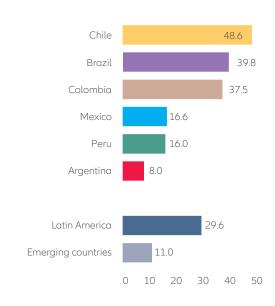
Liabilities in Latin America have grown at the same pace as the net assets in the last ten years (CAGR 2008-2018: 11% for both). Debt growth has gradually slowed down since 2011 and reached its lowest growth in 2014 at (2.0%). Since then, growth accelerated and reached 9.5% year-on-year in 2018, outpacing the growth of the nominal economic output of the region (5.5%) by a wide margin. Overall,

The debt ratio i.e. the ratio of debts to GDP, increased from 23.2 % in 2008 to 29.6 % in 2018. On the whole, the region is still on a comfortable level when compared to other emerging markets, which on average has a debt ratio of 40%. Nevertheless, the differences between individual countries are considerable: in Ar-

# Chile with the highest debt ratio Debt development since 2008



### Debt ratio by country 2018, in %



Debt ratio, in % (lhs)Debt growth, y/y in % (rhs)

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

genting the ratio is around 8%, in Peru 16%, in Mexico it's similar at 16.6%, in Colombia and Brazil they are a bit higher at 37.5% and 39.8%, respectively. In Chile, however, the situation is a little less comfortable as the debt ratio rose to 48.6%. It's higher than the emerging market benchmark in our sample. The liabilities per capita are also the highest in the region at EUR 6,370 opposed to Brazil, the runner up, with EUR 2,933. When comparing to the emerging market average we also find that it is higher (EUR 2,209). With EUR 2,172 liabilities per capita, up by 8.5% year-on-year, the regional average is on par with this benchmark. The region's share of global debt burden has increased from 1.3% to 2.5% over the last ten years.

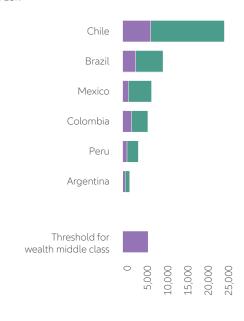
# Latin America: Region of inequalities

Net per capita financial assets, i.e. all savings minus debt, came to a regional average of EUR 5,414 last year; it ranges from EUR 16,882 in Chile to EUR 1,004 in Argentina. Chile is the only country in the region in which the average per capita surpassed the middle class threshold of EUR 12,226. On top of these regional inequalities, there are wealth distribution issues within the countries. 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 52% of total income on average and hold 77% of total assets. This is compared with ratios of approximately 47% and around 73% respectively in emerging markets as a whole and average figures of about 43% and 70% respectively in a global comparison.

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 7,600 and EUR 45,600) was just under 17 % at the end of 2018. That means that 86 million Latin Ameri-

cans 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 45,600 per capita) by global standards, although these individuals accounted for only a fraction of the overall population (0.4%) in 2018. Nearly 82% of the population, and thus the vast majority, still belongs to the lower wealth class. This means that 395 million Latin Americans had average assets of less than EUR 7,600. Furthermore, 131 million people in these six countries are living under the poverty line.

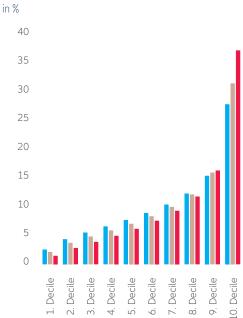
# Enormous gap between rich and poor Net financial assets and liabilities per capita 2018, in EUR



LiabilitiesWorldwideIn emerging countriesIn Latin America

■ Net financial assets

# Average income distribution by comparison,



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

# **IORTH AMERICA**

Population         Total          Share of the global population	
GDP	
Gross financial assets of private households Total  Average  Share of global financial assets	
Debt of private households	



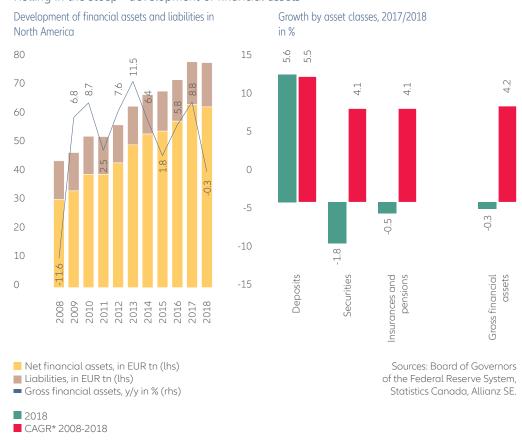
# The price of trade tensions

Households in North America were not immune to trade tensions and economic uncertainties in 2018. By the end of last year, private households held around EUR 79 trillion, or 46% of global financial assets. In absolute terms, savings were down by 0.3% or about

EUR 265 billion in total, as a region. The US gross financial assets decreased by 0.3% (EUR 226 billion), while Canadian gross financial assets decreased by 0.9% (EUR 39 billion).

Up to the third quarter in 2018, things seemed to be looking up for many stock markets. However, October came, and a cocktail of events ranging from failed Brexit talks to trade tensions and expectations of tighter monetary policies, drove the leading stock indices into negative territory after a growth rally that started in 2017. The S&P 500, for example,

## Rolling in the steep - development of financial assets

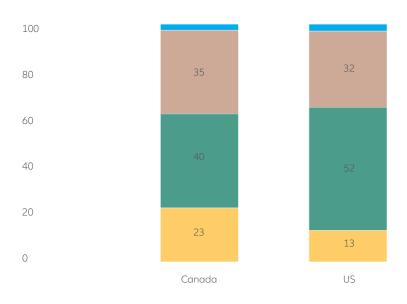


declined by 14% in 2018. As a result of this drop, securities in both countries represented a loss of EUR 743 billion or 1.8%. Whereas US securities holdings fell by 1.6 % year-on-year to around EUR 38.6 trillion, the year-on-year decrease in Canada in this asset class was a whopping 5.8%.

# North America - Saving cash for a rainy day

Investing in securities requires a larger risk appetite than investing in any other of the asset classes. American households have traditionally had a larger risk appetite than the average saver in the advanced economies: securities represent 52% of US financial asset portfolios, against the average of around 40% in advanced economies. In contrast, in Canada, the share of securities is around 38%.

Risky business - heavier on the securities side Assets as % of gross financial assets, per country in %



Bank deposits
Securities
Insurance and pensions
Other

Sources: Board of Governors of the Federal Reserve System, Statistics Canada, Allianz SE. Moreover, Canadian households have been net sellers of securities every year since 1999. In 2018, the value of net disposals of securities came to almost EUR - 83 billion or EUR 2,240 per capita. The value of the household holdings contracted went from EUR 1.8 trillion to almost EUR 1.7 trillion last year.

In contrast, US citizens, buoyed by the tax reform, purchased large volumes last year, with the bulk of savings flowing into this asset class. At EUR 945 billion, households invested a record amount, but not only securities were bought in record numbers. Last year the inflow

of funds into bank deposits increased from an average of about EUR 390 billion in the period from 2008 to 2017 to EUR 509 billion in 2018; as a result, bank deposits increased by 5.5% in 2018 (2017: 2.8%). Their share in total inflows of funds increased from last year's 23% to 28%. Nonetheless, bank deposits still play an inferior role in US savings, accounting for 13% of the total portfolio. In Canada, bank deposits play an important part in savings, partly because households there continue to turn their backs

### Follow the cash trail

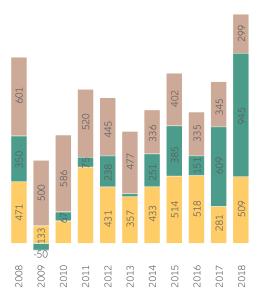
Bank deposits

Insurance and pensions

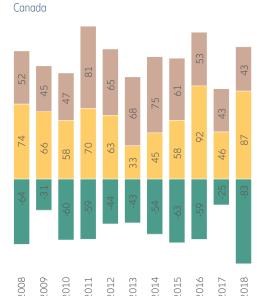
Securities

Others

Cash flow of financial assets by asset classes, in EUR billion USA







on the stock markets. More than half of fresh savings are going into bank deposits, a share that has barely changed in the last decade. The share of bank deposits in total financial assets in Canada is 22% or EUR 978 billion.

The only asset class in the US that could not benefit from the tax reform was insurance policies and pensions: inflows were at a modest EUR 299 billion, after a decade of an average of EUR 455 billion (2008-2017). This decrease may reflect demographic shifts, as baby boomers leave the labor market and no longer buy retirement products. As a result, insurance and pensions shrank by 0.6 % in 2018. In Canada, insurance and pension assets are a key component of household savings at EUR 1.7 trillion or 37 % of their portfolio. In The US, they account for 32% of the total asset portfolio or EUR 24 trillion at the end of 2018.

# Americans learning from experience...

Liability management was not a popular concept in the US in the years leading up to the financial crisis. Personal debt was at times growing in the double-digits. In 2008, when the housing crisis in the US had already erupted, households started to borrow less. Nowadays, ten years later, the growth of liabilities is still at a relatively low rate of 3.2% and total liabilities amount to 103.5% of their disposable income, much lower than the rate a decade ago (132%). Debt has been growing at a lower rate than disposable income in the years following the financial crisis. In 2018, disposable income increased by 4.9%. This development can be attributed by the improvements in the labor market in the last few years as well as the tax reform of early 2018. Growth was recorded across all categories of credit, including home and car loans as well as student loans and credit card debt. Home loans, which accounted for the largest share of private debt (64%), grew by 2.6% year-on-year in 2018. Mortgage debt at the end of 2018 was still 3% below its record level to date.

In per capita terms, liabilities increased last year to an average of EUR 42,953 , for the first time surpassing the record of 2008 (EUR 41,509 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 shoulder their debt burden. All in all, however, the household sector has corrected the excessive debt behavior it displayed in the boom years.

# Every loonie counts, especially when borrowed...

Debt as percentage of GDP in Canada has been consistently on the rise, climbing from 61.1 in 2000 to 103.0 in 2018 – putting it about 24 percentage points ahead of the US level (78.7 %). Low rates set a borrowing boom in motion, per capita debt is at a record high of EUR 39,615. At least, the growth in liabilities in

Mo' debt, mo' problems
Debt as % of disposable income vs debt growth



■ USA ■ Canada ■ USA – Debt growth y-o-y (rhs) ■ Canada – Debt growth y-o-y (rhs) Sources: Board of Governors of the Federal Reserve System, Statistics Canada, Allianz SE. Canada showed signs of a slowdown, falling to 3.9% in 2018, the lowest rate in two decades and compared to an average of 5.7% since 2008.

There are also signs that, the root cause for the debt bonanza, the buoyant Canadian housing market starts to moderate. Housing prices did not experience much of a change in 2018 at the national level (y-o-y: +1%). The Bank of Canada has long been monitoring the household debt burden. Ultimately, the driver of instability in a highly indebted country is the debt service burden: the lower the interest rate, the more debt a given household can afford to pay. The debt service, or the required payments of interest and principal as a percentage of income, in Canada was 14.5% at the end of 2018, surpassing that of 2008 at the break of the financial crisis (14.48 %). New regulations have been thus introduced requiring households to show that they can service their debt at higher levels of interest to help reduce the economy's vulnerability to rate hikes.

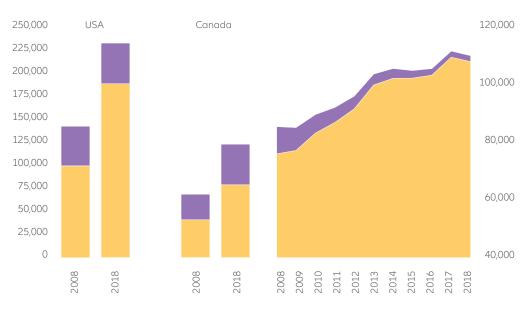
# The US amongst the richest households worldwide

North America is, without the shadow of a doubt, the most prosperous region with net assets per capita of EUR 173,850 (US: EUR 184,411 and Canada: EUR 80,667) As a region, it is well above the industrialized countries' average of EUR 102,804. As means of

comparison, the average Western European citizen held "only" EUR 59,392 worth of net assets. Even when unevenly distributed, 40% of Americans fall under the "High Wealth Category" with personal net wealth above EUR 45,600.

# The gap is no longer rising

# Net financial assets and liabilities per capita, in EUR Difference between USA and Canada, in EUR



Net financial assetsLiabilities

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

# WESTERN EUROPE

**Population** 

**GDP** 

Total·····EUR 15,343 bn
Share of global GDP·····21.4%

Gross financial assets of private households

Total ...... EUR 36,359 bn

Average ..... EUR 86,422 per capita

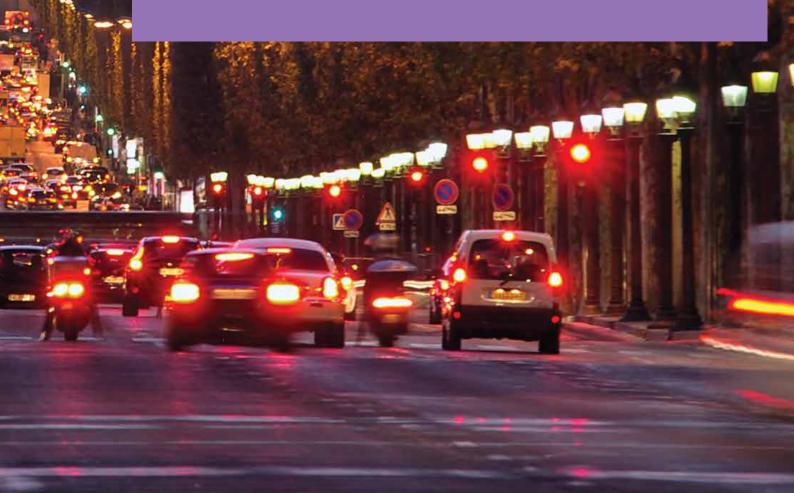
Share of global financial assets ..... 21.1%

Debt of private households

 Total
 EUR 11,372 bn

 Average
 EUR 27,030 per capita

 As % of GDP
 74.1%



# On shaky ground

As 2018 came to a close, Europe found itself in a shaky territory with a delayed Brexit, the threat of a German recession, political turmoil in Italy, the "yellow vest" movement in France, and trade tensions. It is thus, no surprise, that household financial assets fell by -0.2% or by around EUR 60 billion last year to around EUR 36 trillion. This is the first time since the 2008 (-7.9%) that savings in Western Europe have decreased. This fall in household savings is not an isolated event, across industrialized

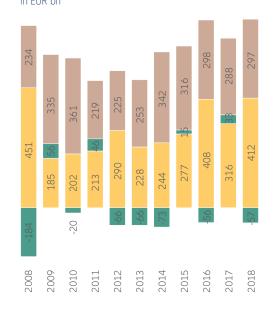
economies (y-o-y: -0.1%) and in North America (-0.3%) financial assets took a hit because of economic uncertainty and the poor performance of the stock markets. As a region, there was a positive cash flow of EUR 644 billion in total in financial assets. The largest bulk of it went into bank deposits (EUR 412 billion) and into insurance and pension receivables (EUR 297 billion). Western Europeans were net sellers of securities (EUR 54 billion) and other financial assets (EUR 9 billion).

## Where do we grow from here?





# Flows financial assets by asset classes<sup>1</sup>, in EUR bn



Volume, in EUR tn (lhs)
Growth rate, y/y in % (rhs)
Bank deposits
Securities
Insurance and pensions

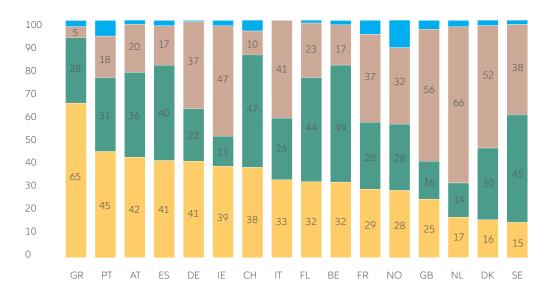
1 Excluding Switzerland Sources: National Central Banks and Statistical Offices, Allianz SE. The asset structure in Western Europe is quite balanced: 29% of the gross financial assets are in the form of bank deposits or cash savings (EUR 11.2 trillion), securities comprise about 31% of the average European household portfolio (EUR 9.8 trillion), and insurance and pension receivables represent almost 40% of financial assets (EUR 14.3 trillion). Household financial asset structure in Europe has been changing for the past twenty years. The distribution of assets in the early 2000s was slightly heavier on the securities and stocks side with a 37% share of the portfolio, while insurance

represented only 32%, and cash savings made up 28%. The shift towards insurance and pension products is likely due to demographic changes and a greater need to make private provisions for retirement.

With the persistence of low-yields, it is becoming increasingly complicated to choose between long maturity financial products because of the suppressed returns. When looking at the financial asset structure per country, there is no "one size fits all" portfolio. The proportion of securities ranges from 13% in Ireland to 49% in Finland. Bank deposits

# Differing preferences

Asset classes as % of gross financial assets, 2018





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

dominate in countries like Greece (65%) and Portugal (45%). Insurance products, however, have the widest range: in Greece only 5% of the portfolio is invested in these products, while in The Netherlands 66% of households' financial asset investments go into retirement and insurance products.

Growth across the board in Western Europe disappointed in 2018 on a year-on-year basis. Gross financial assets decreased in half of the countries in Western Europe and on the other half growth slowed down. Norway grew at +2.8% year-on-year, less than half of the growth reported on 2017 (+5.8%). A similar situation happened in Germany where gross financial assets increased by +2.2% after growing +5.5% in 2017. Only households in The Netherlands saw a slight improvement: in 2017 gross financial assets contracted by 0.2% and in 2018 the portfolio grew by +1.7%. In Italy, the cards turned, after a legacy of six years of positive growth, gross financial assets fell by 4.8% The largest loss in terms of a yearon-year comparison in Europe was in Greece, gross financial assets decreased by -7.2% in 2018, following a good year in 2017 when they experienced a growth rate of +5.3%.

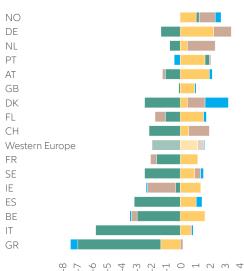
The decrease this year in households savings can be mainly attributed to changes in securities and stock investments, which produced losses of EUR 679 billion (y-o-y: -6.5%) last year: the largest loss recorded since 2008 (-19.5%). Markets were under stress – the European benchmark index Euro Stoxx, for example, recorded a drop of -14.3% in 2018 – and it had a clear effect on household security holdings. The common pattern in the asset growth is that, in fourteen out of the sixteen countries in our sample, securities holdings made the largest contribution to losses in 2018. On average in Western Europe securities contributed -1.9 percentage points to the total growth of -0.2%. The growth contribution of bank deposits (+1.2%) and insurance receivables (+0.4%) could not offset the effect of securities.

Ultimately almost all countries experienced losses in securities except for a modest growth in Norway (+0.7%) and Portugal (+0.8%). In Italy the portfolio value contracted by EUR 251 billion or -13.4%, while in France losses reached EUR 89 billion as the year-on-year growth was -5.5%. Germany also suffered from movements in the stock market, the portfolio contracted by 5.5% which translated

into value loss of around EUR 110 billion. The rest of the countries in our sample also experienced losses: Spain, EUR 68 billion (-7.3%); Switzerland, EUR 47 billion (-7.4%); Belgium, EUR 38 billion (-6.2%); Sweden, EUR 32 billion (-5.0%); Denmark, EUR 21 billion (-7.2%); The Netherlands, EUR 18 billion (-4.7%); Greece, EUR 15 billion (-18%); The UK, EUR 10 billion (-0.8%); Austria EUR 6.7 billion (-2.7%); Finland, EUR 3 billion (-1.9%); and Ireland, EUR 1 billion (-2.5%).

### Show me the money





# Change in gross financial assets since 2008,



Bank deposits
Securities
Insurance and pensions
Other

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

In Western Europe we can also observe a preference for liquidity. In all countries – except for Greece – bank and deposit savings positively contributed to gross financial asset growth. On a regional level, this asset class grew by +4.0%. In Germany, the effect of cash holdings on growth was more pronounced. Germans are risk averse, and as an asset class it grew by 6.0% year-on-year. In Belgium, for example, it is the only asset class that grew at all (5.7%). Since the height of the financial crisis in 2008, almost all countries have grown in terms of gross financial assets - except for Greece. Greek households hold almost 13% less than what they owned in 2008 at EUR 245 billion in 2018.

Insurance in Western
Europe – walking on the
safe side

Insurance receivables in Western Europe represent almost 40% (EUR 14.3 trillion) of the total financial assets, slightly above the advanced economy weight of 34% (EUR 48.3 trillion in total). Demographics and local pension

systems play an important role in the growth of this asset class. Growth in this asset class was also subdued, in the last decade it grew on average +4.5%, in 2018, only by a meager +1.0%. The three largest holdings, in terms of total volume, in the region are the UK (EUR 4.2 trillion), Germany (EUR 2.3 trillion), and France (EUR 2.0 trillion).

# The debt factor

On a global level, since the financial crisis hit, debt has been taken more seriously. In Europe, in particular debt has grown very modestly in the last few years. In 2006, growth in liabilities reached its highest level at 8.8%. In 2018, it reached 3.2% y-o-y, lower than the advanced economies average of 3.4%. Despite the ECB's loose monetary policy and the efforts focused on fostering private consumption, European household debt increased on average +2.0% since 2008, showing an only very slight acceleration in the past four years. The efforts by the ECB seem to fall on deaf ears. In 2018 the gap between liabilities and gross financial asset growth increased to 3.4 percentage points (2017: -0.8%). Nonetheless, the ratio of household debt to financial assets has continuously fallen from a record of 37.6% in 2008, to

8

6

4

2

0

-2

-4

-6

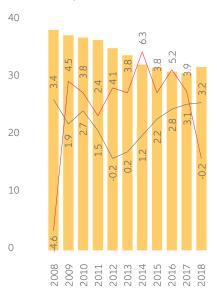
31.3% in 2018. All in all, outstanding loans of Western European households came to EUR 11.4trillion in 2018, which is 26.7% of the global debt burden.

As a region, the debt-to-GDP ratio in Europe is 74.1%, lower than the average of advanced economies (77.8%). So, compared to other regions, the European debt level might pose no systemic risk. At the country level, however, some worries are justified. Four countries – namely Denmark (134.2%), Switzerland (128%), The Netherlands (108.6%), Norway (108.2%) – have debt ratios above 100% i.e.

way above the level US households reached shortly before the subprime crisis broke out. Moreover, Denmark (+6.3%) and Norway (+5.6%) showed also by far the highest growth in liabilities. In fact, only Greece (-4.0%) and Ireland (-2.9%) managed to trim their debt burden in 2018. But in the former case, this might be not only due to financial discipline, but rather the effect of non-performing loans being written off by creditors.

## Debt growth overtakes asset growth

Growth in financial assets and in liabilities in Western Europe



Debt as % of gross financial assets (lhs)

Liabilities, y/y in % (rhs)

■ Gross financial assets, y/y in % (rhs)



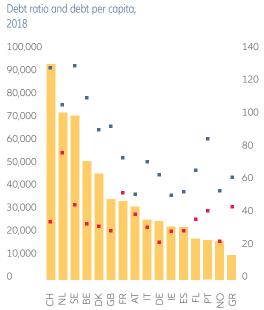
Sources: National Central Banks and Statistical Offices, Allianz SE.

# Thrive and prosper

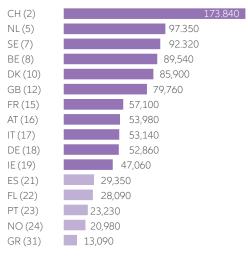
In Western Europe, Swiss households have the highest net financial assets per capita with an average of EUR 173,438 , well ahead of The Netherlands, the second place, with EUR 97,345. On a global level, the Swiss only come after the US in terms of net financial assets in 2018 (EUR 184,411). Being at the top of the ranking for most of the recent years, this "relegation" reflects mainly the strength of the US dollar. Half of the top ten countries in our ranking of net financial assets hail from Western

Europe with Sweden (EUR 92,317), Belgium (EUR 89,543), and Denmark (EUR 85,895) completing the top ranks. Even in harsh economic environments, households in Western Europe seem to have a higher degree of financial resilience than in other regions.

### Switzerland leads in assets and debt



# Ranking by net financial assets per capita in 2018, in EUR



Debt per capita, in EUR (lhs)
Debt as % of GDP (rhs)
Debt as % of gross financial assets (rhs)
HWC
MWC

In brackets: Global ranking Sources: National Central Banks and Statistical Offices, UN Population Division, Allianz SE.

#### ...If I was a rich man

As far as net financial assets are concerned, Western Europeans are spread relatively evenly across all three asset classes. Almost all countries in the region exhibit a net asset per capita above EUR 45,600, which places them within the "high wealth class" country club. However, it is not all "la vie en rose", in terms of wealth distribution, almost 33% of the population (138 million) in Western Europe doesn't have savings of at least EUR 7,600. Which places them in the lowest wealth category. The middle class is comprised of 135 million people (32% of the population in Europe) and the highest wealth category reaches 35% of the population (or 148 million Europeans).

# EASTERN EUROPE

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In the analyzed countries · · · · · · · · · · · · · · · · · · ·	····402 m
Analyzed countries' share of the region as a whole	98.6%
Analyzed countries' share of the global population	5.3%

#### GDF

In the analyzed countries · · · · · EUR 3,444 bn
Analyzed countries' share of the region as a whole · · · · · · 95.2%
Analyzed countries' share of global GDP · · · · · · · 5.2%

#### Gross financial assets of private households

Total····	EUR 2,592 bn
Average · · · · · · · · · · · · · · · · · · ·	····· EUR 6,447 per capita
Share of global financial assets	1.5%

#### Debt of private households

Iolal·····	····· EUR 812 DII
Average · · · · · EUR	2,019 per capita
As % of GDP · · · · · · · · · · · · · · · · · · ·	23.6%



# Eastern European EU members

Private household's financial assets grew by 4.8% in Eastern European EU member states in 2018, slightly below the previous year's growth of +6.7%. Growth rates were nevertheless positive in each of these 11 countries<sup>5</sup>. In total, household savings were up by EUR 64 billion at the end of last year, at over EUR 1.4 trillion. However, while double-digit growth rates had been the norm in the years preceding the crisis, average growth has since fallen to around 6%. The economic performance of the region is closely linked to that of Western Europe. When things are shaky in the West, the echo is felt in the East.

Private households still held the biggest chunk of their financial assets (45.3%) in bank deposits. Even though the world's major central banks have effectively abolished interest rates with their expansionary monetary policy, almost half of total asset growth since 2013 derived from bank deposits. Total deposits rose by 9.1% – 4.1 percentage points more than in the previous year – and came to EUR 635 billion at the end of 2018.

Growth in securities holdings, mainly shares and other equity, in the region slowed significantly year-on-year from 9.3% to 1.2%. However, developments varied widely between individual countries: while double-digit growth rates were achieved in Latvia (+20.1%) and Estonia (+11.9%), households in Poland (-7.2%), Romania (-0.6%), and Bulgaria (-0.3%) actually suffered losses. On the bottom line private households' security holdings amounted to EUR 440 billion at the end of 2018.

Reason for the rather disappointing development was that the respective leading stock market index in almost all Eastern European EU member states, like those in the rest of the world, recorded negative growth over the course of the year. The slip was more pronounced in countries like Bulgaria (-12.3%) and Poland (-8.5%). The only exception was Slovakia, where the index grew modestly by 2.1%. Nevertheless, Slovakia's major index was still markedly below pre-crisis level, like in most eastern EU-countries. Only in Estonia, Latvia, Lithuania, Poland and Hungary have stock markets recovered and major indices have surpassed pre-crisis levels. All in all, the proportion of gross financial assets held in securities came in at 31.4%, implying a drop of nearly 7 percentage points from this asset class' peak in 2007.

Household receivables from insurance companies and pension funds did not grow at all last year. This was, however, owed to the development in Poland, with its 37% share of the region's total life and pension assets: here

this asset class contracted by 7.4% in 2018. All other countries reported positive growth rates, up to a whopping 15% in Romania; its share in the region, however, is just 7.1%. The weight of this asset class in private household's portfolios varies from country to country. It ranges from 7.5% in Hungary to 25.9% in Slovakia. The regional average is a paltry 13.2%, compared to 39.4% in Western Europe.

The intraregional differences in the asset class' weight can be explained by political interventions in Hungary and Poland. In 2010, the capital-funded pension pillar was nationalized in Hungary to pay off sovereign debt. In 2014, Poland followed suit and transferred half of the funds managed by private funds to the state pension system. The reliance of the citizens in these funds in the future remains uncertain.

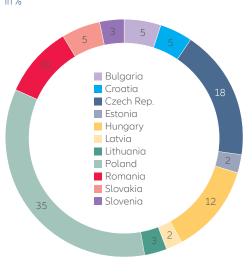
#### Liquidity rules



Volume and growth of financial assets by asset class,



## Share of gross financial assets on the region, in %



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

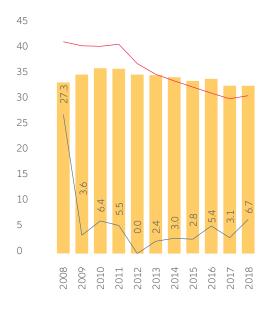
Growth rate, in %

### Bye, bye consolidation?

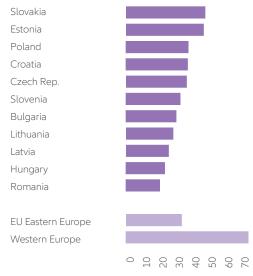
Since the beginning of this century, private household's debt in the Eastern EU-countries increased more than tenfold, from EUR 42.8 billion in 2000 to EUR 434.4 billion by the end of 2018. Back in the year 2000 private household debt corresponded to 9.7% of the region's GDP, today the region's debt-to-GDP ratio is 31.7%. In between lies a decade of double-digit growth, with the debt-to-GDP ratio peaking at 35.0% in 2010, and seven years of

consolidation until 2017. However, the tightening of the lending conditions in the aftermath of the financial crisis seems to have finally tapered off. In 2018, liabilities' growth picked up again, reaching 6.7%. Though, a far cry from the 33.5% in 2006, but still the highest growth rate since 2008 (27.3%). This development was observed in all countries, besides one, with liabilities' growth rates ranging between 4.4% in Hungary and 10.7% in Lithuania; the only exception was Latvia, where loans decreased by 0.5%.

#### Household debt levels are stabilizing Growth in liabilities since 2008



#### Debt as % of GDP, 2018 by country



Liabilities as % of GDPDebt growth, y/y in %

Liabilities as % of gross financial assets

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

However, despite this increase debt-to-GDP levels in the majority of the countries are still lower than before or shortly after the outbreak of the financial crisis, ranging from 19.4% in Romania to 45.0% in Slovakia, with the latter being the only country in the region where no consolidation took place after 2008. They are also still lower than in the Western European EU-member countries, where the average debt-to-GDP ratio was 74.1%.

Another positive effect of the rather subdued liabilities growth was a marked improvement of debt-to-asset ratio, which declined from a maximum 41.6% in 2008 to 30.4% in 2017 on average. Despite the slight increase to 31.0% at the end of 2018, it is not only on regional level but also on country level still well below the levels seen at the end of 2008, with the only exception of Slovakia, where the ratio has reached record-high 54.3% at the end of 2018.

# Still large wealth gaps between the EU-member countries

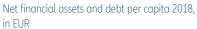
Net assets per capita in Eastern European EU-member countries amounted to an average of EUR 9,430 the end of 2018. However, the range between the richest and the poorest countries in the region is still rather wide. Like in the year before, the inhabitants of the Czech Republic were the richest in the region with net financial assets amounting to EUR 16,785 per capita. Estonia ranked second, with an average EUR 16,214 per inhabitant and Slovenia, until 2015 topping the ranking every year, ranked third, with an amount of EUR 15,196 per capita. At the lower end were Slovakia with net financial assets adding up to EUR 6,255 per capita and Romania with a mere EUR 4,878 per inhabitant; thus these were the only two EU members belonging to the global low wealth class countries. However, in the case of Slovakia it is the high indebtedness of the private households, that pushed the country in the low wealth class. In gross terms, Slovakia ranked among the middle wealth countries like all the other Eastern EU-member countries besides Romania, the poorest country of the Eastern European EU-member countries with gross financial assets per capita amounting to a mere EUR 6,843.

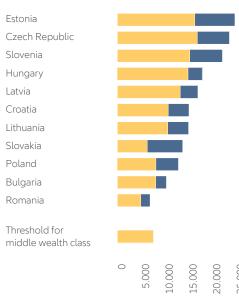
However, compared to Western European households, where net financial assets per capita amounted to EUR 59,392 in 2018, the gap is still huge. However, there has been at least some progress since the turn of the century: In 2000 the average net financial assets per capita in the Eastern European EU-member states amounted to a mere 6.1% of those of their Western European peers; in 2018 they corresponded to 15.9% of the respective sum. Nevertheless, it is still a long way to convergence within the EU.

# Eastern European countries outside of the EU

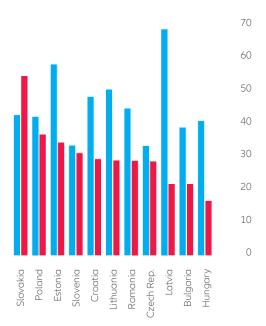
Private household's gross financial assets in Kazakhstan, Russia, Serbia, Turkey, and Ukraine have increased by a compound average growth rate of 21.6% since the financial crisis. However, growth had slowed down in recent years, but in 2018 it picked-up to +12.0%,

#### Huge differences





#### Debt as % of gross financial assets by country



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

Net financial assetsLiabilities

2008 2018 the highest increase since 2015. The volume of assets in these five countries is too low to make up for losses in other regions (global share: 0.7%; gross financial assets: EUR 1.1 trillion), despite its dynamism. These countries are home to almost 6% of the population in our sample. In per capita terms, the population owns EUR 3,974, while the Eastern European EU members own EUR 13,665 on average.

sions and sanctions. As a consequence, China is now one of Russia's most important trade partners, making Russia increasingly dependent on its giant neighbor. On top of this, the volume of fuel oil exports have been falling since 2015. Last year, GDP seemed to improve and grew by 2.3% in real terms, but this was mostly related to revenue from the World Cup and slightly increasing commodity prices.

Liabilities have been growing at a faster pace than assets for a couple of years now. In the period between 2008 and 2017, household debt grew on average 15% annually. Last year, it grew by 16.7% and reached EUR 377 billion. The high growth notwithstanding, the region has still the lowest debt ratio (debt as percentage of GDP), liabilities are only 18.2% of the regional GDP. As means of comparison, emerging markets have an average of 40.3%, Latin America has 29.6%, and their EU-member neighbors have a 31.7% debt-to-GDP ratio. Households held net average assets of EUR 2,714 per capita at the end of 2018. The largest share of assets were owned by households in Russia (75%) and Turkey (20%);their net assets per capita were EUR 4,167 and EUR 1,953, respectively.

Russia's economy was strained by trade ten-

However, household gross financial assets in Russia reached EUR 855 billion by growing +10.7% y-o-y. Deposits showed dynamic growth in 2018 (+11.7%). Cash savings are the lion's share of the gross financial assets (62% of gross financial assets or EUR 530 billion). Securities also had a good year in Russia: they outpaced the growth in 2017 (+4.7%), grew by +10.6%, and came to a total of EUR 237 billion. Securities, stocks and bonds make up 28% of the gross financial assets as of 2018.

Insurance in Russia is highly influenced by the rate of growth in lending to households, as well as by the demand of life insurance products. In 2018, insurance and pension products showed an increase of +12.2% and totaled EUR 61 billion; but its portfolio share of 7.2% is still very low. Going forward, this asset class should respond to changes in regulations effective from January 2019, which influence the demand of investment life insurance premiums.

Moreover, liability growth outpaced asset

growth by a wide margin: household debt grew by 22% to EUR 247 billion in 2018. As a consequence, net wealth in the country grew by "only"+5.6% (EUR 607 billion). While the debt ratio (20% of GDP) is nowhere near worrying, there is a cause of concern: most of the new debt in Russia is related to consumption. With a stagnant economy and increasing consumer prices, the Central Bank of the Russian Federation needs to find a way to boost the economic health of households.

In 2018, gross financial asset growth in Turkey, accelerated to 19.7% from 13.9% in 2017. However, this growth is not all that impressive when taking into account that the country has a 16.3% year-on-year inflation rate. Nevertheless, the volume of household's gross financial assets reached EUR 262 billion. The Turkish GDP seemed to be picking up positively after the coup attempt in 2016. However, a number of policy mistakes placed the economy between a rock and a hard place and it grew by only +2.6%, compared to 2017's 7.4% real GDP growth.

Excessive corporate lending contributed to

the inflation hike and currency devaluation did not bode well on foreign currency nominated debt. However, macro-prudential policies that blocked new FX borrowing by households helped keep debt at bay. Household debt saw a below average growth of 6.0%. Since the financial crisis, liabilities had mostly seen double digit growth at an average of +17.7%. By the end of 2018 household debt totaled EUR 101 billion. The debt ratio in Turkey is 18%, well below the emerging market average of 40.3%. However, things seem to be picking up, as the country embraces the need for fiscal and monetary discipline. Nevertheless, growth in 2019 will most likely be subdued.

With gross assets per capita at EUR 3,180, Turkey still has a long way to go before it can join the ranks of the middle wealth countries (EUR 7,600 per capita). Their household assets are invested very conservatively: deposits represent 77% of the gross financial assets (EUR 203 billion), well above the emerging market average of 45%. The increasing share of deposits in foreign currency translates into a lack of confidence in the currency stability. Securities make up 11.3% of the total assets, last year they fell by 1.4%, and as of 2018 they totaled EUR 29 billion. As for insurance and pension products, at EUR 23 billion, they represent only 8.7% of the household portfolio. This asset class, however, shows the most dynamic development, clocking an impressive growth rate of +33.5% in 2018; over the last decade, the average annual increase stands at+20.3%.

Gross financial assets in Ukraine are estimat-

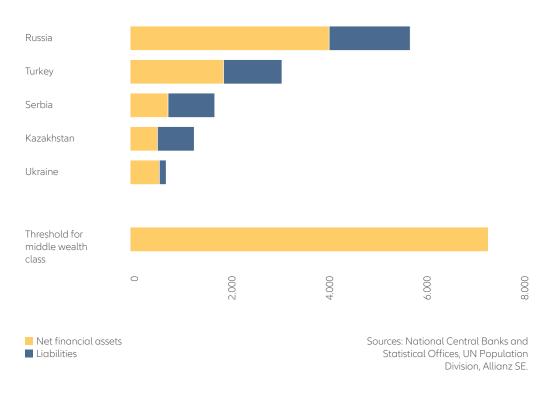
ed at EUR 6 billion, after slightly growing last year by +1.1%. However, at an inflation rate of 10.9%, assets in real terms suffered losses of -9.8%. The average net financial assets per capita came to just EUR 610 at the end of 2018, only Kazakhstan was lower at EUR 569 amongst the countries analyzed. Serbia's households, too, lag far behind with average assets of only about EUR 790 per capita. As in Turkey, bank deposits account for the lion's share of financial assets in these countries, with households there also favoring safe foreign currencies. About half of bank deposits

in Kazakhstan were denominated in foreign currencies. Households in Serbia held around 80% of their savings deposits in foreign currencies, primarily in euros. This high preference for foreign currency reflects the low trust in the local financial system and could be seen as an indicator for a huge black market. Therefore, financial asset data for these countries have to be taken with a pinch of salt; they might underestimate the "real" level of wealth.

All five countries belong to the LWCs and still

#### Russia leader of the pack

Net financial assets and liabilities per capita 2018, in EUR

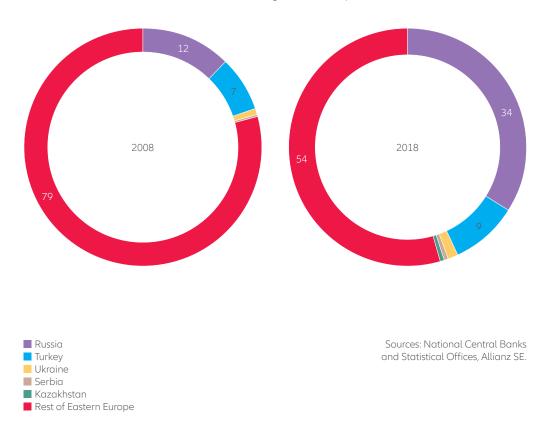


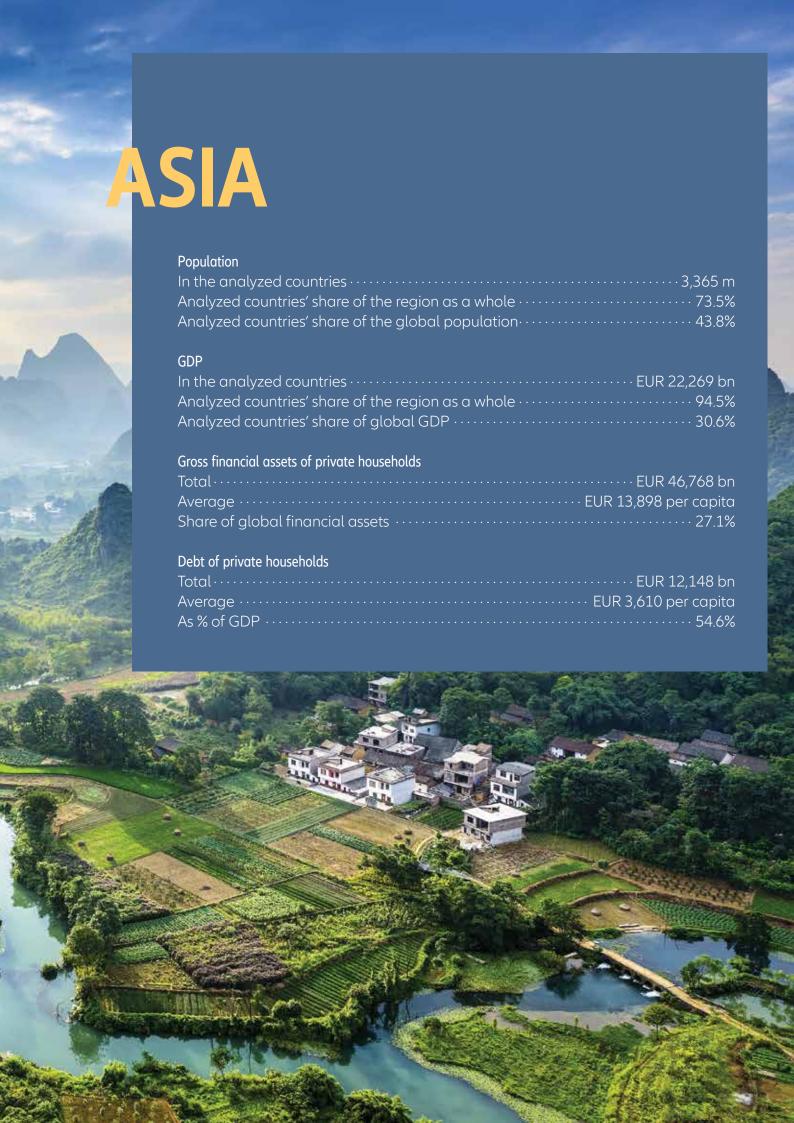
have a long way to go before they reach the EUR 7,600 net financial asset threshold. Even Russia has a little over 55% of the minimum required average assets per capita to reach the club of middle wealth class countries. Not surprisingly, at the end of 2018, 92% of the population in the non-EU sample, or 273 million, belonged to the lower wealth class, only 22 million people made it into the middle wealth

class. High wealth in the region is concentrated on very few hands, on top of which currency effect won't help the population in this particular sample to move up the wealth ranks.

#### The turtle and the hare

Share of non-EU countries in net financial assets of whole region Eastern Europe 2008 and 2018, in %



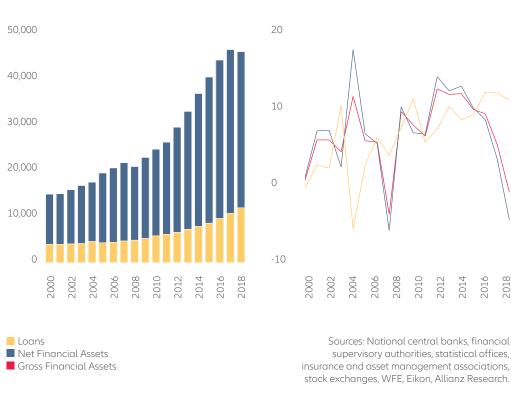


### Two lost years

For the first time since 2008 Asia's private households' financial assets decreased, though to a lesser extent than ten years ago<sup>6</sup>. On the gross level, it was a rather modest decline of 1%, compared to -3.9% in 2008, with gross financial assets amounting to EUR 46.8 trillion at the end of 2018. Due to population growth the decrease in gross financial assets per capita was slightly stronger, with the average amount falling by 1.7% to EUR 13,898. However, the development of net financial as-

sets rings the alarm. Despite a slight slowdown in loan growth from a maximum of 12.0% in 2016 to 11.0% last year, liability growth outpaced asset growth for the third year in a row. Thus, pushing net financial asset growth to -4.6%, which is not too far away from 2008's -6.0%. Net financial assets per capita amounted to EUR 10,288; as a result, by end of last year Asia's private households were in fact "poorer" than in 2016, when average net wealth per capita had summed up to EUR 10,594.





<sup>6</sup> The analysis covers private households and non-profit organizations serving households in China, India, Indonesia, Israel, Japan, Malaysia, Singapore, South Korea, Taiwan and Thailand.

Japan, usually pushing down the region's average growth rates due to the rather subdued development of its private households' financial assets, was this time the stabilizing factor, at least with respect to the development of net financial assets. Taking into account only net financial assets of the private households in the remaining nine countries, the decline in 2018 was 6.0% and thus even stronger than in 2008, when net assets had dropped by 3.7%. The same holds true for net assets per capita: without Japan the average net wealth per capita amounted to a mere EUR 6,908 by the end of 2018, which was not only 6.7% lower than in the previous year, but also less than the amount of EUR 7,267 in 2016. For comparison: in 2008, net financial assets per capita had "only" declined by 4.7%. One reason for this development is the high demand for loans, resulting in a 13.8% plus in 2018 compared to 8.9% in 2008. Another reason is the ongoing weight shift between Japan and China.

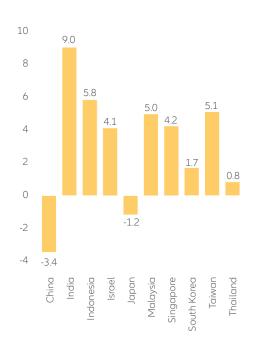
## China's private households hold 45% of Asia's gross financial assets

The distribution of private households' financial assets in Asia is dominated by the two heavyweights China and Japan, with a combined 77% of total financial assets. The situation was the same in 2008, though with reversed roles: since then, China's private households' share of Asia's gross financial assets has increased from 21% to 45%, while that of Japan's households' declined from 58% to 32%. Therefore, developments in China are decisive for the region as a whole. In the last years, gross asset growth in China usually outpaced growth in the other countries, pushing up the region's average while Japan was the brake pad. However, in 2018, both countries blurred the picture: gross financial assets of China's private households declined by 3.4% and those of Japan's by 1.2%, thus dragging the whole region into the red, as the total 4.5% growth in the other countries – which was also rather disappointing after 9.0% in 2017 - could not make up for the two heavyweights' losses. Growth champion was India with a plus of 9.0% followed by Indonesia with 5.8% and Taiwan with 5.1%. Israel and Singapore, where gross financial assets increased by 4.2% and 4.1%, respectively, were midfield, while growth was a mere 1.7% in South Korea and 0.8% in Thailand.

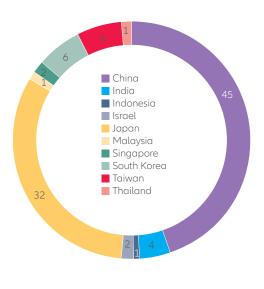
# A disappointing year for equity investors all over Asia

Main reason for the decline of the financial assets was the development on the stock markets in combination with the shift in the overall portfolio structure. In 2008, Asia's private households had held almost 60% of their financial assets in bank deposits, life and pension assets had accounted for 25% and the share of securities had been only 15%,

#### Decreases in China and Japan blur the picture Growth rates 2018 (y/y, in %)



#### Total financial assets (in 2018 EUR bn, in %)



Sources: National central banks, financial supervisory authorities, statistical offices, insurance and asset management associations, stock exchanges, WFE, Eikon, Allianz Research. thus making them rather immune against the stock market turbulences 11 years ago. By the end of 2017, the share of deposits in their portfolios had decreased to 46% and securities accounted for 34% of their assets. Therefore, private households' portfolios were this time much more vulnerable to stock market developments: the increases of deposits and claims against life insurance and pension funds by 6.0% and 4.4%, respectively, could not compensate the decline of their securities

by 13.7%. This had also a slight re-balancing effect on the portfolio mix: by the end of 2018 the share of deposits had increased to 49% of the portfolio, securities accounted for 30% and life and pension assets for 20%.

In addition, stock market decline was not limited to one or two countries, 2018 was a rather disappointing year for equity investors in all covered Asian countries, only the extent of the losses differed: The decrease of the benchmark indices ranged from -2.3% in Israel and -2.5% in Indonesia to -24.6% in China. South Korean investors saw their stock market dwin-

#### Equities drove asset growth into the red Total financial assets, by asset class (in 2018 EUR bn)



#### Growth rates, by asset class (y/y, in %)



Sources: National central banks, financial supervisory authorities, statistical offices, insurance and asset management associations, stock exchanges, WFE, Eikon, Allianz Research.

Deposits

Others

Securities

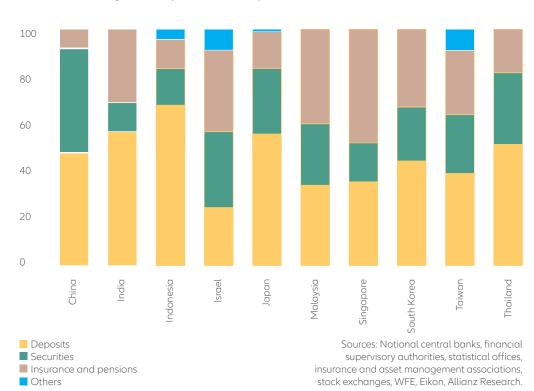
Insurance and pensions

dle by 17.3%, in Japan the Nikkei closed 12.1% lower than one year before and Thailand's SET index fell by 10.8%. In Singapore (-9.8%) and Taiwan (-8.6%) decreases were just below 10%. In Malaysia losses amounted to 5.6%, while in India the recovery which set in over the year helped to reduce the minus against 2017 to -3.4%.

The Chinese households held 44% and thus the highest share of their financial assets in securities, either directly or indirectly via asset and wealth management companies. In the other countries this share was markedly lower: in Israel and Thailand it amounted to 32% and 30% respectively, in Malaysia, Taiwan and South Korea to 26%, 25% and 22%, in Singapore and Japan to 16% each, in India to 15% and in Indonesia to a mere 13%.

China's private households' high exposure to securities was last but not least the result of the ongoing shift from bank deposits into higher-yield assets, which were often equity based wealth management products offered by banks. Thus, China's private households

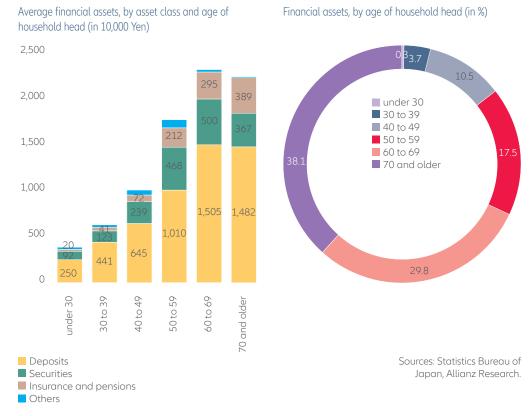
## Marked differences in portfolio structures Total financial assets, by asset class (in 2018 EUR bn, in %)



# Japan's older investors have a higher appetite for risk than their younger peers

The portfolio structure of Japan's private households is not the one you would expect in an industrialized country with an ageing population. In 2018, deposits amounted to 55% of the households' total financial assets, life and pension assets to 28% and securities to only 16%. Furthermore, it was not the younger cohort, who had a taste for risky assets, but the age groups 70 and older and 60 to 69 who had the highest share of securities in their portfolios. Both age groups together, accounting for 34% of Japan's total population, held around 68% of private household's total financial assets. As securities are also a means of closing the income gap in retirement, the low interest of younger households in this asset class could lead to a further deterioration of the stock market's gradual recovery, especially when a high supply of securities, sold by Japanese in their retirement age, does not meet sufficient demand.





were hit by a double impact last year: both the downturn of the stock market and regulatory measures to strengthen financial stability, especially aiming at the asset and wealth management industry. Furthermore, regulatory changes in the life insurance sector led to a slowdown in the growth of private households' life insurance entitlements. Thus, the positive development in the other asset classes, especially the strongest increase in bank deposits within the last five years of 10.5%, could not fully compensate the losses in securities.

In Japan, a rather subdued growth in deposits of a mere 1.6% and a, with a plus of 0.1%, practically stagnating life and pension fund assets class could also not make up for the losses of 12.3% in shares and other equities, although securities were the smallest asset class accounting for only 16% of Japan's private households' total financial assets, while deposits amounted to 55%. In this respect, Japan is kind of an anomaly, as in an industrialized country like Japan one would expect a lower share of deposits and a more balanced portfolio structure reflecting the development

stage of the financial system. However, due to the subdued development of the stock market – the Nikkei picked up only in recent years and reached at the end of 2017 for the first time a value close to the one in 1991 – and some distortions on the life insurance market, bank deposits developed into the asset class of first choice for the Japanese households.

Higher shares of deposits in the overall portfolio than in Japan were only reported in India, with 56% and Indonesia with 68%. However, at the end of 2018, bank deposits had also the highest share in the average portfolio of the private households in Thailand (51%), China (48%, but only due to the slump at the capital market), South Korea (44%) and Taiwan (39%). In Singapore and Malaysia life insurance and pension assets was the dominating asset class with a share of 48% and 40%, respectively, reflecting the ageing of the population, especially in Singapore, and thus the need of private old-age provision.

Looking at the liability side, China dominated also the picture. In 2018, it recorded the highest growth rate of all countries in the region, with a plus of 18.2%. Thus, the share of China's households in the region's total loans increased further, amounting to 50% by the end of last year. In contrast, Japan' share decreased further to 23% due to a loan increase

of only 2.3%, while South Korea's share remained unchanged at 12%, as liability growth had slowed down to 6.1% last year. While Japan and Singapore, where liabilities increased by a mere 1.3%, were at the lower end of the loan increase ranking, South Korea was midfield, together with Israel (6.7%), Thailand (6.0%), Malaysia (4.7%) and Taiwan (4.5%). At the top behind China were India, where loans of private households increased by 17.0%, and Indonesia, where the central bank recorded a loan plus of 9.7%. However, despite these strong increases India's share in the region's loans was still only 2%, while Indonesia's accounted for a mere 1%.

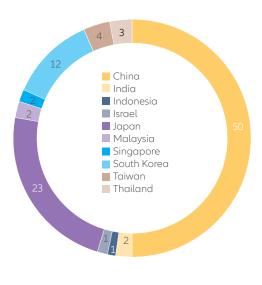
Thus, the development in net terms looks less favorable than in gross terms in most countries: Only in Malaysia, Singapore and Taiwan did private household's gross financial assets increase stronger than their loans. Whereas in four countries net financial assets of private households even declined: in China they almost slumped by 10.2%, in Thailand they decreased by 5.6%, in South Korea by 2.0% and in Japan by 1.9%. However, this did not change the overall picture: China remained also the

#### China's private households' share of loans has increased further





#### Household loans (in 2018 EUR bn, in %)



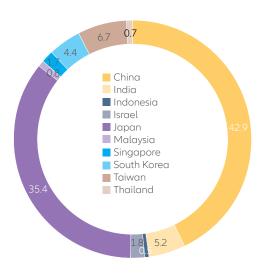
Sources: National central banks, financial supervisory authorities, statistical offices, insurance and asset management associations, stock exchanges, WFE, Eikon, Allianz Research. country with the highest net financial assets in the region, accounting for a share of 43% of Asia's total net financial assets. Japan's share amounted to 35% and that of Taiwan to almost 7%. India's share increased to 5% while South Korea's shrank to 4% due to the high indebtedness of its households. The shares of the other countries ranged between 0.5% and 1.7%.

However, loan growth did not only outpace gross financial asset growth: Since 2008 loan growth has also outpaced GDP growth in most countries. The only exception was Japan, where the loan-to-GDP ratio decreased slightly from 65.0% to 63.2%. The strongest increase took place in China; here the loan-to-GDP ratio tripled from 18.1% to 54.0% within ten years. However, in absolute terms this ratio is still midfield. South Korea tops this ranking with a ratio of 98.8%, followed by Taiwan with 89.8%, Malaysia with 83.4% and Thailand, where loans corresponded to 78.4% of GDP in 2018. In Singapore the ratio was 70.5% of GDP. At the lower end of this ranking were Indonesia with 16.3% and India with 11.2%. In most countries loan growth was mainly driven by housing prices, more than 50% of all loans are housing loans. But even with collateral, a high

#### Net financial assets declined in four countries Growth rates 2018 (y/y, in %)



#### Net financial assets (in 2018 EUR bn, in %)

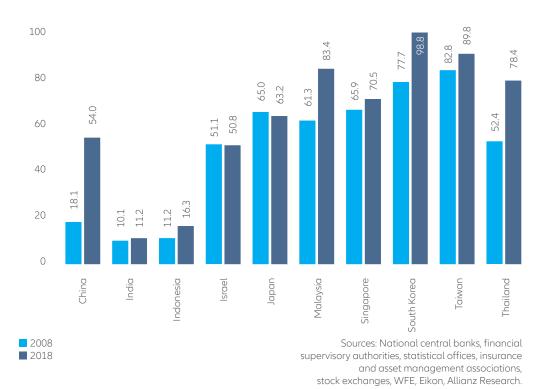


Sources: National central banks, financial supervisory authorities, statistical offices, insurance and asset management associations, stock exchanges, WFE, Eikon, Allianz Research. loan-to-asset ratio bears the risk of financial instability in case of an economic downturn, especially if the overall asset to loan ratio is relatively low.

Against this background the comparably high debt ratios in South Korea, Thailand and Malaysia give still reason for concern despite successful consolidation efforts in recent years. In all three countries, private households' financial buffer is relatively thin; this holds especially true for Thailand. In contrast, despite the fact that Taiwan's loan-to-GDP ratio was the second highest in Asia, Taiwan's private

households are in a much more comfortable situation than South Korea's or Thailand's, as also Taiwan's assets-to-GDP ratio was the by far highest in the region, amounting to 538.4%; net assets corresponded to 448.6% of GDP. Thus, Taiwan's net financial-assets-to-GDP ratio was still higher than the gross financial-assets-to-GDP ratio of Japan, which was 339.6% and the second highest in the region, the third highest had Singapore with 264.1%. For comparison: In Thailand net financial assets amounted to a mere 56.4% of GDP. This ratio was only lower in Indonesia, where net financial assets corresponded to 19.3% of the country's GDP.

## Loan growth outpaced GDP growth in most countries – no consolidation in sight Total loans (in % of GDP)

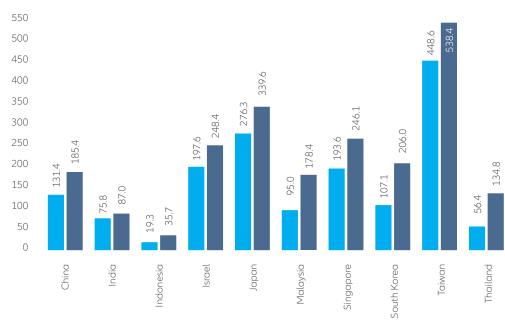


However, despite the high asset-to-GDP ratios, Taiwan had to leave the first place in the per capita ranking to Singapore. The average Singaporean held EUR 136,936 gross and EUR 100,370 net financial assets, thus dominating the gross as well as the net per capita ranking. In gross terms, Japan with assets amounting to EUR 118,350 per capita was slightly ahead of Taiwan, with an average EUR 117,426. South Korea was upper midfield with gross financial assets of EUR 57,411 per inhabitant, while Ma-

laysia (EUR 17,057) and China (EUR 14,670) were lower midfield. Thailand missed the EUR 10,000-threshold again, with assets amounting to EUR 8,538 per capita. In India average gross financial assets per inhabitant amounted to EUR 1,515 and in Indonesia to EUR 1,197.

In net terms, the ranking looks only slightly different: Taiwan and Japan change ranks behind Singapore with net financial assets per capita amounting to EUR 97,850 in Taiwan and EUR 96,308 in Japan. In the lower midfield Malaysia and China also change ranks: with EUR 10,395 per capita financial assets

# Taiwan's household have the highest assets-to GDP ratio Asset-to-GDP ratio, net and gross (in %)



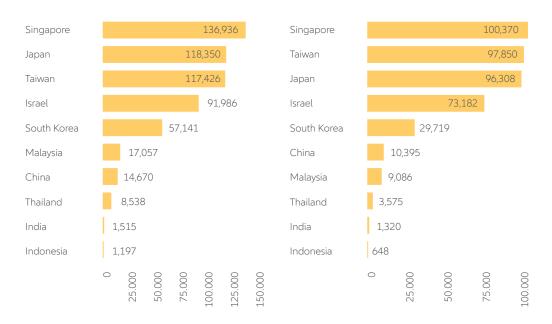
Net financial assetsGross financial assets

Sources: National central banks, financial supervisory authorities, statistical offices, insurance and asset management associations, stock exchanges, WFE, Eikon, Allianz Research.

in China were higher than in Malaysia, where they amounted to EUR 9,086. However, in net terms, average financial assets shrank to EUR 29,719 in South Korea and to EUR 3,575 in Thailand. At the lower end of the ranking, net financial assets per capita in India were still above EUR 1,000, amounting to EUR 1,320, while they dropped below this threshold in Indonesia with EUR 648.

However, one has to keep in mind, that these numbers are only averages, telling nothing about the actual wealth distribution in the single countries. Overall, 72.8% of Asia's population still belonged to the global low wealth class with net financial assets amounting to less than EUR 7,600. 19.4% ranked with the middle wealth class holding net financial assets between EUR 7,600 and EUR 45,600. Only 7.8% of Asia's vast population were considered high wealth individuals, with net financial assets of more than EUR 45,600. Therefore, there is still further need for financial education and improvement of the region's financial systems.

# Singapore's private households hold the highest financial assets per capita in Asia Gross financial assets per capita (in 2018 EUR) Net financial assets per capita (in 2018 EUR)



Sources: National central banks, financial supervisory authorities, statistical offices, insurance and asset management associations, stock exchanges, WFE, Eikon, Allianz Research.



#### **Population**

Total·····	80 m
Share of the global population · · · · · · · · · · · · · · · · · · ·	0.4%

#### **GDP**

Total·····	EUR 1,343 bn
Share of global GDP·····	1.9%

#### Gross financial assets of private households

Total	758 bn
Average · · · · · EUR 126,794 per	capita
Share of global financial assets · · · · · · · · · · · · · · · · · · ·	2.2%

#### Debt of private households

Total EUR 1,63	B bn
Average · · · · · EUR 55,092 per co	ipita
As % of GDP	1.6%

#### **Moderate Growth**

In 2018, the growth of financial assets of Australian households was 3.3% or EUR 104 billion. Growth slowed down significantly and reached its lowest point since 2011 (+0.3%). However demure, it managed to stay above that of its peer New Zealand (1.4%) and even above the average growth of advanced economies (-0.1%). Australian private financial assets amounted to EUR 3.2 trillion at the end of 2018, while Kiwi households' financial assets came to EUR 546 billion in total.

This asset growth is based on the three major asset classes. Holdings of cash, demand and savings deposits – accounting for 22% of total assets – were up 5.0% in Australia or EUR 34 billion. On the other hand, the dominant asset class of Australian households' portfolio with a share of 57%, insurance receivables, grew modestly by 2.3% or EUR 41 billion. This is the lowest growth in insurance investment since 2011 (-1.5%). The low yield environment contributed to this slowdown in growth for the insurance market in Australia.

Australian households are risk averse and shy to invest in securities, the share of the latter asset class in their portfolio is roughly 19%. Moreover, upwards of 60% of the equity investment in Australia are shares of non-listed

companies or equity in unincorporated businesses. The year-on-year growth by the end of 2018 dropped to 4%, (+ EUR 24 billion), reflecting the dismal performance of the Australian stock market: The first three quarters of the year the S&P/ASX 200, the Australian leading capital market index, grew modestly by 2.4%, however, in the last quarter it suffered a downturn, which resulted in a y-o-y negative growth of 6.9%.

Of the total increase of EUR 104 billion of financial assets in Australia in 2018, 19.8% (EUR 21 billion) is attributable to household saving efforts, or inflow of funds, while the remaining 80.2% (EUR 83 billion) is related to changes in the value of the portfolio. Investment and savings growth slowed down in the Land Down Under as household consumption (+4.3%) continues to outgrow disposable income (+2.9%); the savings rate slid down to 3.1% from 4.5% the previous year.

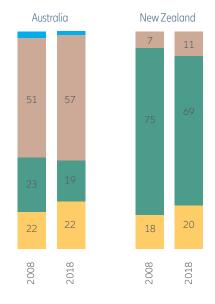
In the neighboring New Zealand, households are more prone to inest in riskier assets. Securities comprised 69% of the portfolio of household financial assets in 2018, of which more than half – similar to the situation in Australia – were direct holdings of equities. The vast majority of these holdings were unlisted shares and other ownership interests in unincorporated businesses. Which means that households were not as affected by the contraction of 9.8% observed in the New Zealand stock exchange index: This asset class decreased by a mere 0.1% or EUR 1 billion in 2018.

Cash, demand and savings deposits held by households had the strongest growth of all asset classes in New Zealand in 2018, they increased by 6.1% or EUR 6.2 billion; their portfolio share, however, is rather low (around 20%). In total, savings in New Zealand rose by EUR 7.5 billion to EUR 546 billion over the course of the year, representing growth of 1.4% compared with 2017.

Moreover, a different asset class is on the spotlight as of late. Insurance investment had had an average growth since the financial crisis of 8.2% annually. However, last year, this asset class only grew by 3.1% or EUR 1.8 billion in 2018, the weakest growth since 2008. It remains to be seen whether 2018 was just a blip or whether 2018 marks the end of kiwi households' love affair with insurance. With a portfolio share of just 11%, this asset class still holds a lot of promise.

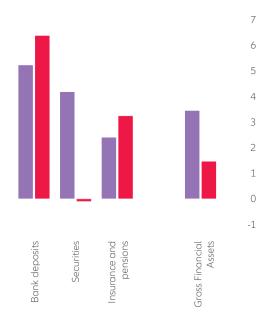
#### Different preferences

Asset classes as % of gross financial assets





#### Growth in financial assets by asset class, 2018/2017 in %



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

### Red alert for private debt

Total household liabilities stood at EUR 1.5 billion at the end of 2018 and represented 47% of total financial assets held by households in Australia. In the mid-2000s household debt increased rapidly, much faster than, for example, wages. As a consequence, the debt-to-income ratio rocketed from 80% to 130% before the financial crisis. After the crisis, however, unemployment was high and income growth was sluggish. Net saving rates started to pick up in 2009 at 7.9% and reached their peak in 2011 at 9.3%. The debt-to-income ratio fell to 147%. Since then, however, the household net saving rate has been on a landslide and as of 2018, it represented a meager 3.1%. Although liability growth slowed down, too, from 6.4% in 2017 to 4.2% in 2018, the debt-to-income reached a new record at 164% at the end of 2018.

All in all, household debt has grown by an average of 5.8% per year or EUR 301 billion in total over the last five years. Average liabilities per capita came to EUR 60,361 in Australia at the end of 2018, almost twice the average for industrialized countries(EUR 32,087); worldwide, only Switzerland, Denmark and Norway exceed this figure. Not surprisingly, debt has become a key issue for the regulators and the central bank in Australia.

The credit boom in Australia was fueled in particular by rapid growth in house prices in

the past few years. However, in 2018 it suffered its longest downturn and housing prices fell from 149.8 to 147.7 (2012 = 100). To try to avoid an overheating, APRA, the banking regulator in Australia, tightened the credit conditions already back in 2014. However, the low-yield environment overpowered this policy and Australia's debt exposure continues to be worrying. There is a latent deleveraging risk for Australian households. It is a quicksand scenario given the high debt dependence in the region.

The ratio of interest payments to disposable income increased slightly last year from an average of 8.7% to 9.1%. The record high was 12.5% in 2008 at the height of the financial crisis. Although the proportion of non-performing household loans has recently risen slightly, it has remained at a relatively low level (NPL ratio below 1%). This suggests that the overall quality of outstanding loans is high. Nonetheless, the household sector is increasingly vulnerable as income growth is subdued and unemployment remains relatively high.

Debt management is the order of the day in Oceania. The Reserve Bank of New Zealand has foreseen the risks from domestic debt in the current economic environment. Debt levels in New Zealand are similarly worrying as in the neighboring Australia. In 2018, the debt-to-income ratio of households reached 139. This is the highest level of indebtedness seen in the country. Household liability growth experienced a slowdown after the financial crisis. However the rising housing prices in New

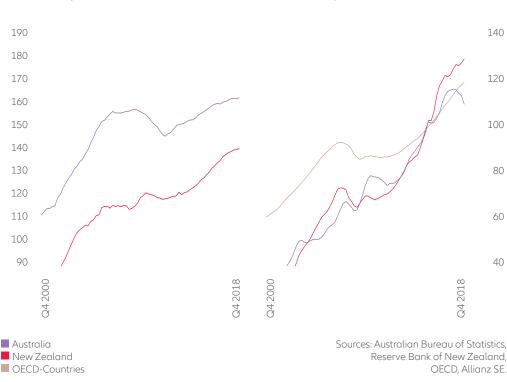
Zealand accelerated the growth in the last five years. At the end of 2018, the realized growth of household liabilities remained stable at 6.7%. Mortgage grew by EUR 7.8 billion and general total liabilities increased by EUR 8.2 billion to EUR 130 billion. Despite this, New Zealand still had a lower debt ratio than Australia and liabilities per capita came to an average of EUR 27,433, less than half the figure for Australia (EUR 60,361).

Given the property boom and housing price increases in New Zealand, the Reserve Bank of New Zealand calls for improvements in the

financial system resilience by increasing banking capital requirements and addressing debt conduct challenges. Debt in New Zealand is a Kiwi ticking time bomb. While it is still not close from happening, the risk is certainly not non-existent. Debts in the household sector remain the biggest single risk to the financial system, as New Zealand's central bank emphasizes once again that high debt and changes in asset prices could amplify global financial system disruptions in its latest report on financial stability.

# The sky is the limit? Debt as % of disposable income





# Differences in the ratio of assets to liabilities

Looking at the region as a whole, 41.6% of the population had high net financial assets in a global comparison, i.e. an average of more than EUR 45,600 per capita, at the end of 2018. In North America this proportion came in at 41%, whereas around 35% of the population of Western Europe falls into this category. In terms of the national distribution of wealth, the richest 10% of Australian households own around 45% of total private assets, while the proportion in New Zealand comes to almost 50%. The average for industrialized countries is estimated at 51%.

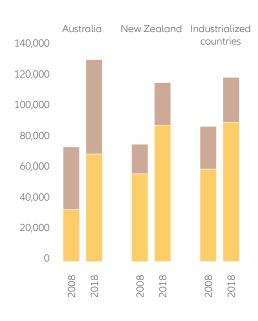
If we only look at the assets side of the wealth balance sheet, then at the end of last year, Australians had average per capita financial assets of EUR 129,031 putting them 12% ahead of their neighbors in New Zealand (EUR 115,053 per capita). Following deductions for liabilities, however, the latter are in a much better position: due to the relatively

high debt burden, Australian financial assets fell to only EUR 68,670 per capita in net terms, whereas in New Zealand, average per capita assets came in at EUR 87,621 in net terms. For each euro borrowed in Australia, there were assets worth EUR 2.13, while households in New Zealand had EUR 4.20 in assets for each liability of one euro.

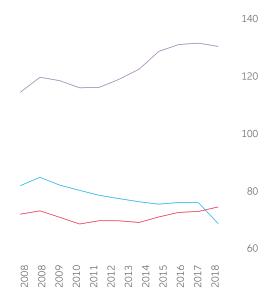
In the global league of the highest net per capita financial assets, New Zealand is in the ninth place, and five places ahead of Australia. Compared with 2000, the country has maintained its position, whereas Australia has climbed from 19th to 14th place. This reflects the fact that not only debts, but also assets have risen significantly in Australia, growing by an average of 6.1% per year in the last decade, compared with an average of 4.7% in New Zealand.

#### Australian debt affair

Net financial assets and debt per capita, in EUR



#### Liabilities as % of GDP



Net financial assets
Liabilities
Australia
New Zealand
Industrialized countries

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

## **Appendix A: Methodological comments**

#### General assumptions

The Allianz Global Wealth Report is based on data from 53 countries. This group of countries covers 91% of global GDP and 68% 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 2018.

#### 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 7,600 and EUR 45,600 for the global middle wealth class in 2018.

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 7,600 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 7,600 and EUR 45,600; 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*	Bulgaria*	Argentinia***
Austria*	Chile*	Brazil***
Belgium*	China***	Colombia**
Canada*	Croatia*	India*
Denmark*	Czech Republic*	Indonesia***
France*	Estonia*	Kazakhstan*
Germany*	Finland*	Mexico***
Ireland*	Greece*	Peru***
Israel**	Hungary*	Romania*
Italy*	Latvia*	Russia**
Japan*	Lithuania*	Serbia***
Netherlands*	Malaysia**	Slovakia*
New Zealand*	Norway*	Thailand***
Singapore*	Poland*	Turkey*
Sweden*	Portugal*	Ukraine***
Switzerland**	Slovenia*	
Taiwan**	South Africa*	
United Kingdom*	South Korea*	

<sup>\*2018</sup> asset balance sheet

<sup>\*\*</sup>Extrapolation based on 2017 asset balance sheet

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

Appendix B:	Gross financial assets		Net financial assets	Gini coefficient of wealth distribution	GDP	
Financial gasets by country	in FUD ha	2018, yoy	EUR per	CLID por or prite	:- 0/	CLID a or comita
Financial assets by country	in EUR bn	in %	capita	EUR per capita	in %	EUR per capita
Argentina 	70	34.5	1,583	1,012	0.68	7,136
Australia	3,213	3.3	129,031	68,670	0.59	46,991
Austria	675	1.0	75,884	53,981	0.70	43,391
Belgium	1,317	-1.7	114,734	89,543	0.57	39,500
Brazil Bulgaria	1,942 72	10.6	9,270	6,317 8,033	0.74	7,411 7,737
Canada	4,459	-0.9	10,258 120,282	80,667	0.65	38,478
Chile	4,439	7.3	22,591	16,402	0.73	12,740
China	20,943	-3.4	14,670	10,395	0.59	7,911
Colombia	280	6.8	5,648	3,667	0.73	5,283
Croatia	62	4.0	14,924	10,561	0.62	12,373
Czech Republic	250	4.9	23,461	16,785	0.61	19,298
Denmark	899	0.8	156,317	85,895	0.80	52,466
Estonia	33	11.5	24,649	16,214	0.67	19,065
Finland	326	0.2	59,095	28,088	0.65	41,708
France	5,413	-0.8	83,295	57,095	0.66	36,144
Germany	6,202	2.2	74,616	52,857	0.71	40,767
Greece	245	-7.2	23,324	13,088	0.58	17,607
Hungary	173	9.0	17,771	14,813	0.62	13,289
India	2,049	9.0	1,515	1,320	0.72	1,741
Indonesia	321	5.8	1,197	648	0.75	3,359
Ireland	374	-0.9	77,577	47,056	0.70	64,148
Israel	771	4.1	91,986	73,182	0.67	37,029
Italy	4,163	-4.8	68,658	53,136	0.58	29,135
Japan	15,054	-1.2	118,350	96,308	0.47	34,852
Kazakhstan	25	0.6	1,341	569	0.63	7,407
Latvia	33	13.9	16,869	13,205	0.74	15,041
Lithuania	42	6.9	15,012	10,686	0.67	16,107
Malaysia	538	5.0	17,057	9,086	0.69	9,560
Mexico Netherlands	860	-1.4	6,812	5,483	0.72	8,000
New Zealand	2,493 546	1.7	146,155 115,053	97,345 87,621	0.64	44,933 36,449
Norway	488	2.8	91,432	20,980	0.59	65,102
Peru	116	5.3	3,617	2,649	0.70	6,058
Poland	484	1.9	12,756	8,081	0.58	13,115
Portugal	407	1.6	39,730	23,227	0.66	19,620
Romania	133	5.6	6,843	4,878	0.64	10,114
Russia	855	10.7	5,864	4,167	0.75	8,398
Serbia	16	5.6	1,768	791	0.65	4,873
Singapore	788	4.2	136,936	100,370	0.65	51,852
Slovakia	75	5.5	13,692	6,255	0.48	16,510
Slovenia	46	6.2	22,021	15,196	0.60	21,978
South Africa	506	-3.2	8,755	6,471	0.78	5,158
South Korea	2,924	1.7	57,141	29,719	0.56	27,743
Spain	2,152	-1.6	46,095	29,354	0.58	25,953
Sweden	1,354	-0.8	135,796	92,317	0.80	47,300
Switzerland	2,271	-0.1	266,318	173,838	0.64	72,233
Taiwan	2,786	5.1	117,426	97,850	0.65	21,810
Thailand 	593	0.8	8,538	3,575	0.68	6,334
Turkey	262	19.7	3,179	1,953	0.71	6,848
Ukraine	33	1.1	754	610	0.62	2,433
United Kingdom	7,578	1.0	112,871	79,762	0.74	35,134
USA	74,370	-0.3	227,364	184,411	0.81	54,560
World	172,503	-0.1	33,693	25,358	0.84	12,802

1	USA	184,411	1	Switzerland	266,318
2	Switzerland	173,838	2	USA	227,364
3	Singapore	100,370	3	Denmark	156,317
4	Taiwan	97,850	4	Netherlands	146,155
5	Netherlands	97,345	5	Singapore	136,936
6	Japan	96,308	6	Sweden	135,796
7	Sweden	92,317	7	Australia	129,031
8	Belgium	89,543	8	Canada	120,282
9	New Zealand	87,621	9	Japan	118,350
10	Denmark	85,895	10	Taiwan	117,426
11	Canada	80,667	11	New Zealand	115,053
12	United Kingdom	79,762	12	Belgium	114,734
13	Israel	73,182	13	United Kingdom	112,871
14	Australia	68,670	14	Israel	91,986
15	France	57,095	15	Norway	91,432
16	Austria	53,981	16	France	83,295
17	Italy	53,136	17	Ireland	77,577
18	Germany	52,857	18	Austria	75,884
19	Ireland	47,056	19	Germany	74,616
20	South Korea	29,719	20	Italy	68,658
21	Spain	29,354	21	Finland	59,095
22	Finland	28,088	22	South Korea	57,141
23	Portugal	23,227	23	Spain	46,095
24	Norway	20,980	24		39,730
25	Czech Rep.	16,785	25	Portugal Estonia	24,649
26	Czech Rep.	16,402	26	Czech Rep,	23,461
27	Estonia	16,214	27	Greece	23,324
28	Slovenia	15,196	28	Chile	22,591
29	Hungary	14,813	29	Slovenia	22,021
30					
31	Latvia Greece	13,205 13,088	30 31	Hungary Malaysia	17,771 17,057
32	Lithuania	10,686	32	Latvia	16,869
33	Croatia	10,561	33	Lithuania	15,012
34	China	10,395	34	Croatia	14,924
35	Malaysia	9,086	35	China	14,670
36	Poland	8,081	36	Slovakia	13,692
37	Bulgaria	8,033	37	Poland	12,756
38	South Africa	6,471	38	Bulgaria	10,258
39	Brazil	6,317	39	Brazil	9,270
40	Slovakia	6,255	40	South Africa	8,755
40	Mexico	5,483	41	Thailand	8,538
41	Romania	4,878	42	Romania	6,843
43	Russia	4,167	43	Mexico	6,812
44	Colombia	3,667	44	Russia	5,864
45	Thailand	3,575	45	Colombia	5,648
45					
40	Peru	2,649 1,953	46 47	Peru	3,617 3,179
47	Turkey India	1,953	47	Turkey Serbia	1,768
48	Argentina	1,320	48	Argentina	1,583
	Serbia	791		Argentina	1,583
50		648	50 51	india Kazakhstan	1,341
51	Indonesia		51 52		
52 53	Ukraine Kazakhstan	610 569	52 53	Indonesia	1,197 754
53	World	23,330	JS	Ukraine World	31,068
	vvoitd	23,330		vvortd	31,000