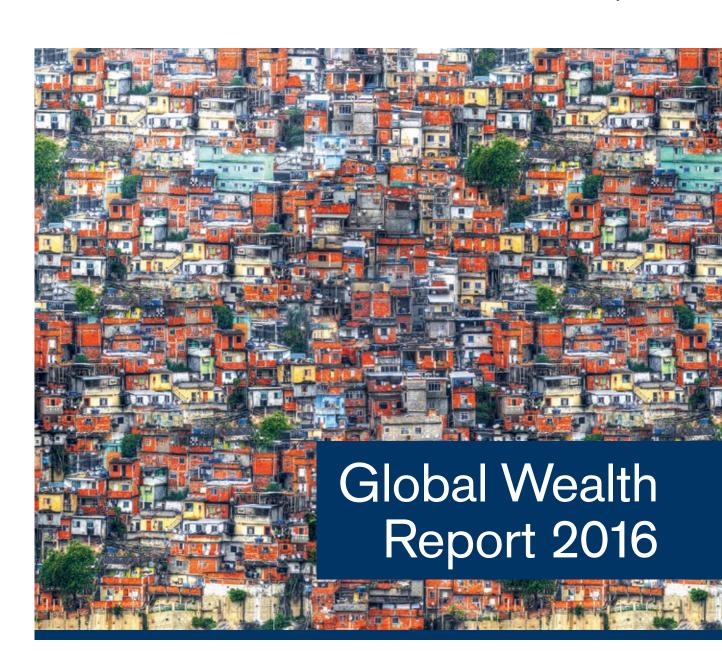


# Research Institute

Thought leadership from Credit Suisse Research and the world's foremost experts



# Introduction

Despite their significance for economic activity, precise and comprehensive insights into the levels and the global distribution of wealth remain scarce. The Global Wealth Report, issued annually by the Credit Suisse Research Institute, is one of the key sources of intelligence in relation to global wealth development, and delivers extensive estimates of global household wealth levels, covering all regions and population segments.

Our seventh edition of the Global Wealth Report confirms a course of the weak global wealth growth. In the course the past 12 months, global wealth has risen by USD 3.5 trillion to USD 256 trillion, which represents an increase of 1.4%. However, wealth creation has merely kept pace with population growth. As a result, in 2016, wealth per adult was unchanged for the first time since 2008, at approximately USD 52,800. Among the major economies, the USA and Japan were able to generate substantial additional wealth, while the United Kingdom recorded a significant decline as a result of currency depreciation.

Since 2008, we have reported on gains in household wealth being driven by an increase in financial assets. Interestingly, we are observing a shift in 2016, as the share of non-financial assets increased for the first time. In total, USD 4.9 trillion were added to real assets, compared to a USD 330 billion rise in financial assets. We have further established that wealth inequality, measured by the share of the wealthiest 1% and

wealthiest 10% of adults, as compared to the rest of the world's adult population, continues to rise. While the bottom half collectively own less than 1% of total wealth, the wealthiest top 10% own 89% of all global assets.

Since the beginning of the century, emerging economies have significantly influenced the global allocation of wealth. In 2000, emerging economies accounted for a mere 12% of global wealth, but have contributed nearly 25% towards global growth since. Today, emerging nations are home to 18% of the world's ultra-high net worth population. China alone accounts for 9% of the top decile of global wealth holders, which is well above France, Germany, Italy, and the United Kingdom.

Besides the recurring themes, our 2016 edition of the Global Wealth Report sheds light on the most significant trends at the bottom of the global wealth pyramid. Currently, an estimated 9% of adults globally are net debtors, which is without a doubt a worrying development. In our report, we provide insights into the regional composition of this segment, explore structural factors associated with poverty, and estimate the assets owned by the lower wealth segments.

We trust that you will find our report insightful.

#### **Urs Rohner**

Chairman of the Board of Directors, Credit Suisse Group AG Chairman of the Credit Suisse Research Institute

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# 02 Introduction

- 04 Global wealth 2016: The year in review
- 14 Global trends in household wealth
- 22 The global wealth pyramid
- 28 The bottom billion
- 39 Wealth outlook

# 45 Wealth of nations

- 46 **United States** Record spell continues
- 47 Japan Still in the doldrums
- 48 China Uncertain outlook
- 49 India Holding pattern
- 50 France Eurozone blues
- 51 **United Kingdom** Brexit looms
- 52 **Switzerland** View from the top
- 53 Russia Sanctions pain
- 54 **Singapore** Slowdown
- 55 Taiwan Asian tiger
- 56 **Indonesia** Growth with depreciation
- 57 **Australia** Still resilient
- 58 **South Africa** Signs of growth
- 59 Chile Sustained growth
- 60 Canada Some concerns
- 61 Brazil Challenging times

# 62 About the authors

# 63 Imprint / Disclaimer

# Global wealth 2016: The year in review

Now in its seventh edition, the Credit Suisse Global Wealth Report is the most comprehensive and up-to-date source of information on global household wealth. The United States continued its unbroken spell of wealth gains since the financial crisis, but Japan added more to its stock of wealth. The United Kingdom was the main loser, losing USD 1.5 trillion in the aftermath of the vote to leave the European Union. The share of financial assets fell for the first time in many years, but it is too early to tell if this will halt the upward trend in wealth inequality which has pushed the share of the top 1% of wealth holders to above 50%.



#### Household wealth levels off

The bullish early years of the millennium, when global wealth was rising at double-digit rates, came to an abrupt halt with the financial crisis. Hopes were high that wealth growth would take off again after 2008, but despite some promising dawns, sustained high growth has proved elusive. And while new challenges emerge, few of the older challenges are resolved. In mid-2016, the slowdown of the global economy and the likelihood of interest rate rises were dampening the future prospects for household wealth worldwide. It is not surprising, therefore, that this year continues the pattern of low singledigit changes in wealth experienced since 2013 (Figure 1). Total global wealth managed to edge upwards by USD 3.5 trillion to USD 256 trillion, but the rise of 1.4% was matched by the increase in the number of adults, so wealth per adult of USD 52,800 is much the same as a year ago.

The United States continued its unbroken spell of gains since the financial crisis, adding USD 1.7 trillion to its stock of household wealth. However, like the world as a whole, this rise merely kept pace with population growth, so wealth per adult was unchanged for the first time since 2008. Elsewhere, the pattern across each region was quite similar when exchange rates are held constant: total wealth increased by 3% on average, just about enough to offset population growth. Similarities across regions are also evident in the impact of exchange rates: adverse currency movements caused wealth to fall in every region except Asia-Pacific (excluding China and India), which bucked the trend due to appreciation of the yen (Figure 2). As a consequence, wealth per adult rose by 6.5% in Asia-Pacific (excluding China and India), and by 0.9% in North America, but fell in Europe, China and India by an average of 2%, and in Latin America and Africa by more than 5%.



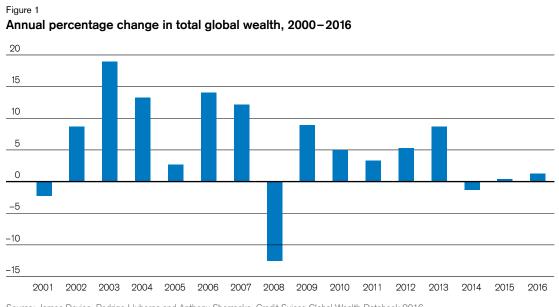
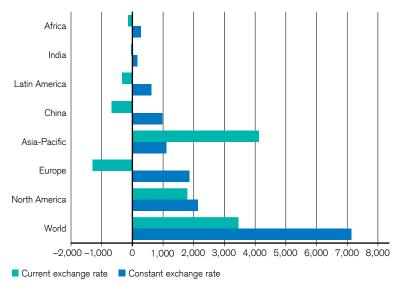


Table 1
Change in household wealth, 2015-2016, by region

|               | Total<br>wealth |         |         | Wealth<br>per adult | Change in wealth per adult | Change in financial assets |         | Change in non-financial assets |         | Change in debts |         |
|---------------|-----------------|---------|---------|---------------------|----------------------------|----------------------------|---------|--------------------------------|---------|-----------------|---------|
|               | 2016            | 2015-16 | 2015-16 | 2016                | 2015–16                    | 2015-16                    | 2015-16 | 2015-16                        | 2015-16 | 2015-16         | 2015-16 |
|               | USD bn          | USD bn  | %       | USD                 | %                          | USD bn                     | %       | USD bn                         | %       | USD bn          | %       |
| Africa        | 2,503           | -132    | -5.0    | 4,261               | -7.5                       | -142                       | -10.2   | -9                             | -0.6    | -19             | -6.5    |
| Asia-Pacific  | 53,465          | 4,117   | 8.3     | 46,325              | 6.5                        | 2,525                      | 8.7     | 2,704                          | 9.3     | 1,112           | 13.1    |
| China         | 23,393          | -679    | -2.8    | 22,864              | -3.7                       | -886                       | -6.8    | 398                            | 3.1     | 193             | 9.9     |
| Europe        | 73,305          | -1,300  | -1.7    | 125,460             | -1.8                       | -1,654                     | -4.1    | 344                            | 0.7     | -10             | -0.1    |
| India         | 3,099           | -26     | -0.8    | 3,835               | -2.8                       | -21                        | -4.1    | 28                             | 1.0     | 33              | 12.2    |
| Latin America | 7,561           | -322    | -4.1    | 18,442              | -5.7                       | -115                       | -4.3    | -191                           | -2.9    | 15              | 1.2     |
| North America | 92,381          | 1,796   | 2.0     | 337,078             | 0.9                        | 627                        | 0.8     | 1,621                          | 5.3     | 452             | 3.0     |
| World         | 255,708         | 3,455   | 1.4     | 52,819              | -0.1                       | 334                        | 0.2     | 4,895                          | 3.8     | 1,775           | 4.4     |

Since 2008, gains in household wealth have been driven by increases in financial assets. This year, non-financial assets have taken the lead, adding USD 4.9 trillion to household wealth compared to a rise of USD 334 billion in financial assets. As a consequence, the share of financial assets in the global portfolio declined for the first time since 2008. Table 1 shows that rises in non-financial wealth have been most apparent in North America and in the Asia-Pacific region, including China but not India. The same regions account for most of the rise in household debt, which is larger than we have seen for some years. In terms of local

Figure 2
Change in total wealth (USD bn) by region, 2015–2016: current vs constant exchange rates



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016 currency however, the largest percentage rise (16%) in household debt per adult was recorded in India.

#### Regional distribution of wealth

The geographical imbalance in global household wealth is evident from Figure 3, which compares the share of net worth of each region with its proportion of the adult population. North America and Europe together account for 65% of total household wealth, but contain only 18% of the adult population. In the past, total global wealth in the two regions has often been similar, with Europe's greater population compensating for higher average wealth in North America. The latter pulled ahead after 2013 however, and now accounts for 36% of global wealth compared to 29% for Europe.

In each of the other regions, the share of wealth fails to match the population share. The discrepancy is modest in the Asia-Pacific region (excluding China and India), where 24% of global adults own 21% of global wealth. Elsewhere, the disparity between population and wealth is quite striking. Despite enormous gains this century, China accounts for 21% of the adult population of the world, yet only 9% of global wealth. The ratio is similar for Latin America: 8% to 3%. For Africa and India however, the population share exceeds the wealth share by a factor of more than ten.

# Asset prices and exchange rates

Over longer periods, trends in household wealth are strongly related to economic growth, savings rates and demographic factors. Over shorter time-spans, however, changes in household

wealth across regions and countries are linked more closely to movements in asset prices and exchange rates. A year ago, the global assessment was dominated by a huge increase in market capitalization in China, which rose by almost 150% in the year to end-June 2015. A sharp reversal in equity values was already evident a year ago, so the 25% fall recorded for China in Figure 4 will have been expected. Elsewhere, equity prices have tended to fall, with the reductions in market capitalization averaging around 10%, as in France and Germany. Amongst G8 nations, the United Kingdom and Italy fared a little worse, while Canada, Japan and the United States fared slightly better. Russia even managed to buck the general trend, with a 2% rise.

The pattern of market capitalization displayed in Figure 4 is broadly representative of the rest of the world. However, a few countries experienced more extreme results. Market capitalization rose by more than 10% in Hungary and in Vietnam, and by more than 20% in New Zealand and in Slovakia. The removal of sanctions meant that Iran was an outlier, with market capitalization almost tripling during the period. Losers included Saudi Arabia, Egypt and Ireland, who each fared a little worse than China, but nowhere near as badly as Ukraine, which recorded a drop of 97%.

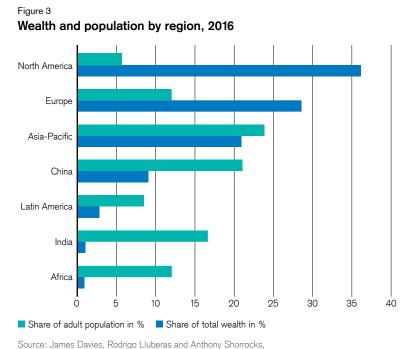
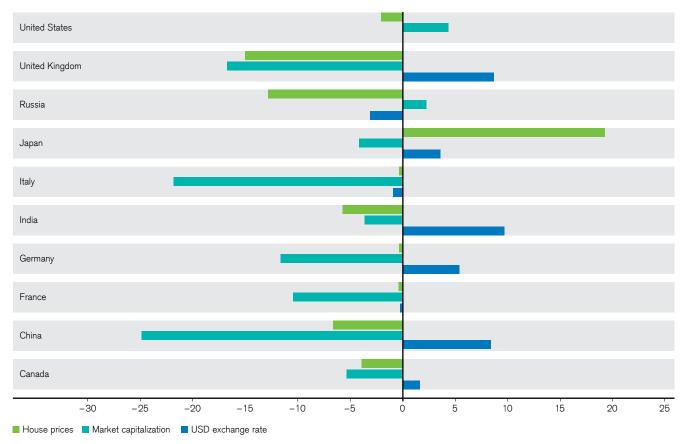


Figure 4
Change in market capitalization, house prices and USD exchange rate (%), 2015-2016



Credit Suisse Global Wealth Databook 2016

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 5
Change in total wealth, 2015-2016 (USD bn):
Biggest gains and losses

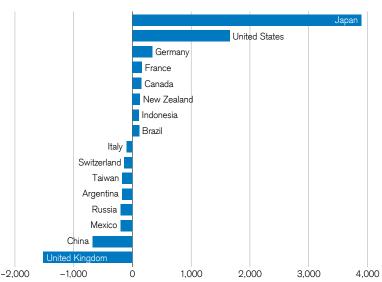
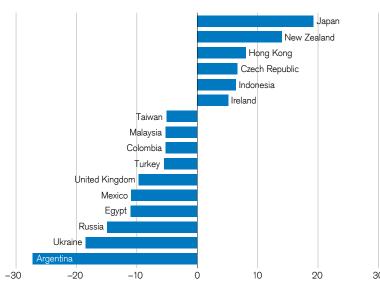


Figure 6
Change in household wealth (%), 2015–2016:
Biggest gains and losses



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

The downward movement in equity prices and market capitalization helps explain the relatively small increase this year in household financial wealth. For the non-financial component of household assets, house price movements are a useful guide. Around the globe, house prices rose modestly in most countries, with only Greece and Brazil recording declines greater than 5%. Six countries saw house prices rising by more than 10%. In Sweden, Ireland, Hungary, Turkey and Colombia, they were up by 15% on average. In Argentina, they rose by 31% when measured in pesos, but fell by 8% in terms of US dollars.

Exchange rate movements were unusually restrained in the year to end-June. The Japanese yen appreciated by 19% against the USD, almost exactly offsetting the 17% drop of a year ago. Among the other countries recorded in Figure 4, the euro showed little change and Canada, China and India depreciated by around 5%. The ruble fell by 13%, and the GBP dropped by 15% in the immediate aftermath of the vote to leave the European Union. This was also when most of the decline in UK equity prices occurred. Worldwide, only two countries experienced greater currency depreciation than the UK: South Africa (–17%) and Argentina (–39%).

#### Winners and losers among countries

Breaking with recent tradition, the United States failed to achieve the highest wealth rise amongst individual countries, with its rise of USD 1.7 trillion surpassed by the USD 3.9 trillion increase registered by Japan. Six other countries listed in Figure 5 gained USD 100 billion or more. Last year, wealth fell by USD 100 billion or more in 27 countries, whereas this year, only eight countries experienced a drop of this magnitude, and only two lost more than USD 200 billion. China lost USD 680 billion due to the equity price adjustment and currency depreciation, while household wealth fell by USD 1.5 trillion in the United Kingdom, as a direct consequence of the Brexit vote.

The percentage changes in wealth are also modest this year, with relatively few countries gaining or losing more than 10% of wealth. Japan's rise of 19% exactly matched the appreciation of the yen. New Zealand was the only other country to gain more than 10%, which came from capital market appreciation combined with exchange rate improvement. The USD 1.5 trillion wealth loss for the United Kingdom translates into a 10% loss in percentage terms, which places it among the biggest losers in Figure 6. Mexico, Egypt and Russia fared a little worse, leaving Ukraine (–19%) and Argentina (–27%) with the biggest percentage losses, due largely to adverse exchange rate movements.



#### Wealth per adult across countries

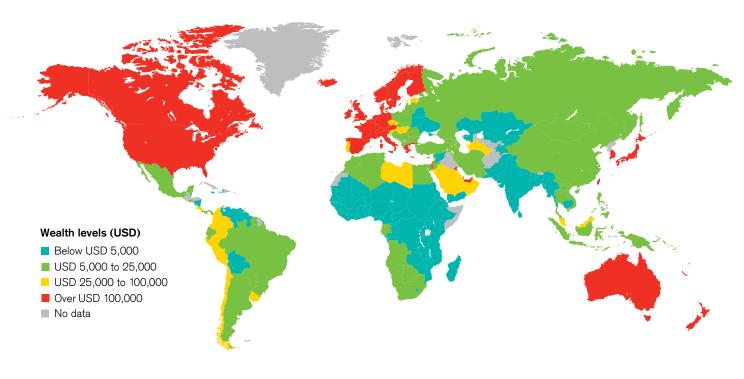
The figure of USD 52,800 for global average wealth per adult masks considerable variation across countries and regions, as is evident in Figure 7. The richest nations, with wealth per adult over USD 100,000, are found in North America, Western Europe, and among the rich Asia-Pacific and Middle Eastern countries. The list of countries and their relative ranking tends to be quite stable over time. More substantial changes can arise, however, and are sometimes prompted by revisions - invariably upwards - to the official statistics which underlie our estimates. For example, household financial assets in New Zealand were revised upwards significantly a year ago. This year, upward revisions to official household financial wealth figures have elevated South Korea to the "rich club," where it should have featured for the past decade according to our revised estimates.

This year, the most significant drops in wealth per adult were experienced by the United Kingdom (down USD 33,000 to USD 289,000), Switzerland (down USD 27,000 to USD 562,000), and Norway (down USD 13,000 to USD 312,000). This had little impact on the country rankings. Switzerland retains first place, and its lead over second-placed Australia (USD 376,000, down USD 5,000) appears very secure. (Luxembourg and Iceland could be considered closer competition, but we lack confidence in the data for these countries). The United States (USD 345,000, up USD 3,000), and Norway are still in third and fourth place respec-

tively, but New Zealand (USD 299,000, up USD 34,000) has jumped up into fifth, leapfrogging the United Kingdom, Singapore (USD 277,000, up USD 4,000) and Belgium (USD 271,000, up USD 8,000). Canada (USD 270,000, up USD 2,000) drops to ninth place, while Denmark (USD 260,000, up USD 5,000) retains tenth position.

The ranking by median wealth per adult favors countries with lower levels of wealth inequality and produces a somewhat different ranking. In previous years, we were inclined to believe that Australia led Switzerland in terms of median wealth due to higher wealth inequality in Switzerland. Based on the available data - which are quite limited - we now think that Swiss inequality is not so different from other European countries, and that its median wealth is higher than previously reported. The revised estimate of USD 244,000 for median wealth per adult now places Switzerland in first place, ahead of Australia (USD 163,000), Belgium (USD 155,000), New Zealand (USD 136,000) and Norway (USD 135,000). The rankings by median wealth of the United Kingdom (USD 108,000: seventh), Singapore (USD 101,000: ninth), and France (USD 100,000: tenth) are similar to their ranking by mean wealth. However, Japan (USD 120,000: sixth) and Italy (USD 104,000: eighth) rank higher on the median wealth criterion. In contrast, the United States falls dramatically from third place according to mean wealth to 23rd place according to median wealth. However, its median wealth of USD 45,000 is not so different from Denmark (USD 52,000), Germany (USD 43,000) and Sweden (USD 40,000).

Figure 7 World wealth levels, 2016



#### Intermediate wealth

The "intermediate wealth" group portrayed in Figure 7 covers countries with mean wealth in the USD 25,000 - USD 100,000 range. Two European Union (EU) countries (Portugal and Slovenia) are situated towards the top of the band, while three more recent EU members Czech Republic, Estonia, and Hungary) are found lower down. The intermediate wealth group also encompasses a number of Middle Eastern nations (Bahrain, Lebanon, Oman, and Saudi Arabia), and important emerging markets in Asia and Latin America (Chile, Costa Rica, and Uruguay). In recent years, Malaysia and Poland have hovered near the USD 25,000 lower limit, but both have now fallen below this threshold according to our calculations.

#### Frontier wealth

The "frontier wealth" range from USD 5,000 to 25,000 per adult covers the largest area of the world and most of the heavily populated countries including China, Russia, Brazil, Egypt, Indonesia, the Philippines, and Turkey. The band also contains most of Latin America (Argentina, Bolivia, Colombia, Ecuador, El Salvador, Mexico, Panama, Paraguay, and Peru), many countries bordering the Mediterranean (Algeria, Jordan, Morocco, Tunisia, and the West Bank and Gaza), and many transition nations outside the EU (Albania, Armenia, Azerbaijan, Bosnia, Georgia, Macedonia, Mongolia, and Serbia). South Africa was once briefly a member of the intermediate wealth group, but now resides in this category alongside other leading sub-Saharan nations Angola, Botswana, Equatorial Guinea, and Namibia. Thailand and Vietnam are promising Asian members of the group, alongside Malaysia, which may well soon return to the group above. As already noted, Poland dropped into this group this year, joining other EU members Latvia, Lithuania, and Slovakia. Kazakhstan, Sri Lanka, Venezuela, and Yemen all fell below the USD 5,000 threshold and into the group below.

The final group of countries with wealth below USD 5,000 is heavily concentrated in central Africa and south Asia. This group encompasses all of central Africa apart from Angola, Equatorial Guinea, and Gabon. India is the most notable member of the Asian contingent, which also includes Bangladesh, Cambodia, Nepal, Pakistan, and Sri Lanka. Also languishing in the middle of this wealth range are three countries bordering the EU: Belarus, Moldova, and Ukraine.

# Distribution of wealth across individuals and wealth inequality

To determine how global wealth is distributed across individuals, rather than regions or countries, our estimates of the level of household wealth across countries is combined with information on the pattern of wealth distribution within countries.

**North America** 90% Latin America 80% Africa 70% Europe 60% 50% 40 % India 30% 20% Asia-Pacific 10 % 3 Wealth decile

Figure 8 Regional composition of global wealth distribution, 2016

Once debts have been subtracted, a person needed only USD 2,220 to be among the wealthiest half of world citizens in mid-2016. However, USD 71,600 is required to be a member of the top 10% of global wealth holders, and USD 744,400 to belong to the top 1%. While the bottom half of adults collectively own less than 1% of total wealth, the richest decile (top 10% of adults) owns 89% of global assets, and the top percentile alone accounts for half of total household wealth.

The shares of the top 1% and top 10% in world wealth fell between 2000 and 2007: for instance, the share of the top percentile declined from 50% to 46%. However, the trend reversed after the financial crisis, and the top shares have returned to the levels observed at the start of the century. We suspect that these movements reflect the relative importance of financial assets in the household portfolio, which have risen in value since 2008, pushing up the wealth of many of the richest countries, and of many of the richest people, around the world. Although the share of financial assets fell this year, the shares of the top wealth groups continued to edge upwards. However, information on wealth distribution appears with a lag, so our provisional estimates may later be revised downward, in line with expectations, Global wealth inequality has certainly been high and rising in the post crisis period, but it is unwise to draw conclusions with confidence regarding the current trajectory.

## Wealth distribution across regions

Assigning individuals to their corresponding global wealth decile (i.e. population tenth) enables the regional pattern of wealth to be portrayed, as in Figure 8. The most prominent feature is the contrast between China and India. New data for China show greater wealth disparity than previously recognized, and also widespread negative wealth holdings among the bottom decile. Nevertheless, most Chinese adults are in the upper middle section of global wealth distribution, where they account for a third of worldwide membership of deciles 7-9. China's record of strong growth this century, combined with rising asset values and currency appreciation, has shifted its median position in Figure 8 towards the right, while rising inequality has thickened both the top and bottom tails. China now accounts for 9% of the top decile of global wealth holders, less than the number of residents in USA and Japan, but well above the number in France, Germany, Italy, and the United Kingdom, which it overtook some years ago. In contrast, residents of India remain heavily concentrated in the bottom half of the distribution, accounting for more than a quarter of the members. However, the country's high wealth inequality and immense population mean that India also has a significant number of members in the top wealth echelons.

Residents of Latin America are fairly evenly spread across the global wealth spectrum in Figure 8. The Asia-Pacific region (excluding China and India) mimics the global pattern even more closely, but its apparent uniformity masks substantial polarization within the region. Residents of high-income Asian countries, such as Hong Kong, Japan, and Singapore, are heavily concentrated at the top end: half of all adults in high-income Asian countries are in the top global wealth decile. In contrast, inhabitants of lower-income countries in Asia, such as Bangladesh, Indonesia, Pakistan, and Vietnam, tend to be found lower down in the wealth distribution. In fact, when high-income countries are excluded from the Asia-Pacific group, the wealth pattern within the remaining countries resembles that of India, with both regional groupings contributing around one quarter of the members of the bottom half of the wealth pyramid.

Africa is even more concentrated at the bottom end of the wealth spectrum: more than 40% of African adults belong to the lowest two global wealth deciles. At the same time, wealth inequality is so high in Africa that some individuals are found among the top global wealth decile, and even among the top percentile. Interestingly, North America and Europe also contribute many members to the bottom wealth decile, which is a reflection of the greater ease with which individuals - especially younger ones -acquire debt in advanced economies. Overall, however, North America and Europe are heavily skewed toward the top tail, accounting together for 60% of adults in the top 10%, and an even higher percentage in the top percentile. Europe alone accounts for 35% of members of the top wealth decile, and the proportion this century was as high as 39% when the euro-US dollar exchange rate was more favorable.

# Monitoring world wealth

Wealth is one of the key components of the economic system. It is valued as a source of finance for future consumption, particularly in retirement, and for reducing vulnerability to shocks such as unemployment, ill health, or natural disasters. Wealth also enhances opportunities for informal sector and entrepreneurial activities, when used either directly or as collateral for loans. These functions are less important in countries that have generous state pensions, adequate social safety nets, good public healthcare, high-quality public education, and well-developed business finance. Conversely, the need to acquire personal assets is particularly compelling and urgent in countries that have rudimentary social insurance schemes and reduced options for business finance, as is the case in much of the developing world.

The Credit Suisse Global Wealth Report offers a comprehensive portrait of world wealth, covering all regions and countries, and all parts of the wealth spectrum from rich to poor. Valued at current

exchange rates, total global wealth increased by USD 3.5 trillion, or 1.4%, in the year to mid-2016. Controlling for exchange rate movements, the rise was a little larger, at USD 7.1 trillion. The United States again posted a healthy increase, but this year Japan led the way with a rise of USD 3.9 trillion. The top ten countries in the wealth-per-adult league include many smaller, dynamic economies - Belgium, Denmark, New Zealand, Norway, Singapore, and Switzerland - as well as Australia, Canada, the United Kingdom, and the United States. Notable cases of emerging wealth are found in Chile, the Czech Republic, Lebanon, Slovenia, and Uruguay, while "frontier" wealth is evident in Ecuador, Egypt, Indonesia, Malaysia, Thailand, and Tunisia.

Wealth varies greatly across individuals in almost every part of the world. Our estimates suggest that the lower half of the global population collectively owns less than 1% of global wealth, while the richest 10% of adults own 89% of all wealth, with the top 1% accounting for half of all global assets. In recent years, wealth inequality has trended upwards, propelled in part by the rising share of financial assets, and a strengthening US dollar. There are signs that these underlying factors are waning, but the impact on wealth inequality is not yet apparent.

The next two chapters consider longer-term trends in wealth holdings, and examine in detail the pattern of holdings across individuals. This year, a separate chapter collates what is known about the wealth holdings of the bottom half of the wealth distribution, and in particular the "bottom billion" adults. For those who are interested, the methodology which underpins our estimates is referred to in the accompanying Credit Suisse Global Wealth Databook 2016, which also contains much additional data.

## Notes on concepts and methods

Net worth, or "wealth", is defined as the value of financial assets plus real assets (principally housing) owned by households, minus their debts. This corresponds to the balance sheet that a household might draw up, listing the items which are owned, and their net value if sold. Private pension fund assets are included, but not entitlements to state pensions. Human capital is excluded altogether, along with assets and debts owned by the state (which cannot easily be assigned to individuals).

For convenience, we disregard the relatively small amount of wealth owned by children on their own account, and frame our results in terms of the global adult population, which totaled 4.8 billion in 2016.

The "Asia-Pacific" region excludes China and India, which are treated separately due to the size of their populations.

Data for 2015 and 2016 refer to mid-year (end-June) estimates; the figures for earlier years indicate year-end values unless indicated otherwise.

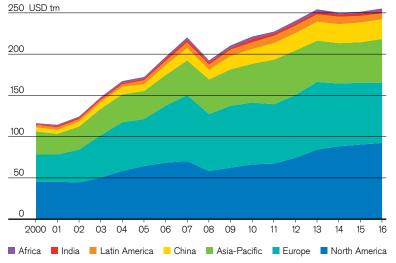


# Global trends in household wealth

This chapter reviews trends in household wealth since 2000. The early years of the century saw a strong expansion of global wealth, underpinned by rapid growth in China and other emerging economies. Following a dip during the financial crisis, total global wealth resumed its upward trend, but at a slower pace. In fact, growth in wealth per adult has barely kept up with population growth in US dollar terms since 2007, while median wealth has continued its downward trend, and stands 32% below its pre-crisis peak.



Total global wealth 2000-2016, current exchange rates



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

#### Trends in global wealth

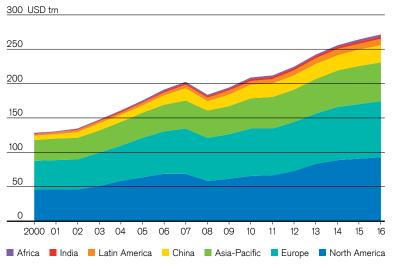
In recent years, there has been a growing sense that the economic recovery is shallow, and has not reached all layers of society. Evidence from our global wealth database supports this view. While exchange rate movements sometimes obscure trends, wealth per adult and median wealth have grown well below their potential during the last nine years, compounding fears that we are in the midst of a lost decade for global wealth growth.

Figures 1 and 2 show the regional makeup of household wealth since 2000. Wealth in USD has increased at an average annual rate of 5.2%, while in local currency terms, it has risen by 4.9%. In absolute terms, the increase amounts to USD 139 trillion. To put this into perspective, global GDP in 2015 is estimated to be USD 73.2 trillion according to the IMF. Much of this increase took place in the early years of the century: between 2000 and 2007, global wealth increased by USD 104 trillion, only to fall by



USD 28 trillion the following year. Since then, it has managed to recoup all the lost ground, but the pace of growth has been disappointing, with an annual average 3.8% rate, which is less than half the precrisis figure of 9.5%. When measured using constant exchange rates (effectively measuring growth in domestic currencies), growth is more flattering for the post-crisis years, amounting to 5.4% annually, against 6.7% in the pre-crisis period. This contrast between current and constant exchange rates has been even more pronounced since 2013: while a strong US dollar has limited growth in USD terms to just 0.5%, at constant exchange rates wealth is up nearly 12%. Which is more relevant? Both numbers matter. Few people who are not US dollar earners are likely to measure their net worth in that currency. However, if their local currency purchasing power is eroded due to imported inflation (via rising food prices, for example), then exchange rate movements become very relevant, especially for those lower down the wealth pyramid.

Figure 2 Total global wealth 2000-2016, constant exchange rates



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 3 Wealth share (%) in 2000, and share of wealth growth during 2000-2016: selected regional groupings

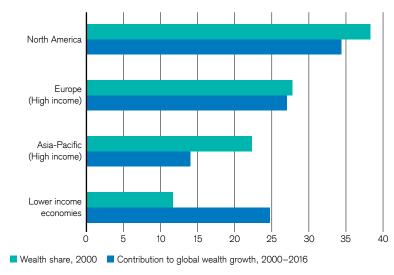
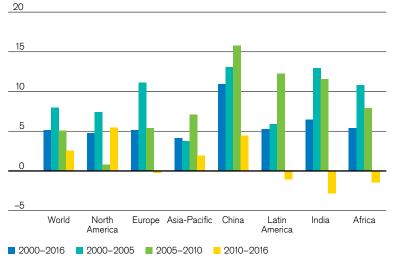


Figure 4 Annual average wealth growth (%) by region, 2000-2016, current exchange rates



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

The regions containing high-income economies - North America, Europe, and Asia-Pacific (excluding China and India) - continue to account for the bulk of global wealth, at around 81% in mid-2016. However, a major rebalancing has taken place since the start of the century. China, which accounted for 4% of wealth in 2000, contributed more than 13% towards global wealth growth. Together, lower-income (emerging) economies accounted for 12% of wealth in 2000, but contributed nearly 25% towards global growth. In local currency terms, the contribution of lower-income economies to global wealth growth was greater still, amounting to nearly 29%, which is more than the contribution of high-income European and Asian economies.

To explore the variety of regional experiences, it is useful to consider three sub-periods: the early years 2000-2005, the crisis years 2005-2010, and the recovery years 2010-2016. Total household wealth has doubled this century in the world as a whole, and wealth has roughly doubled - or done better - in every region. The outstanding performance of China since 2000 is evident from Figure 4, with wealth growing at an annual rate of 11%, equivalent to a five-fold rise over the 16-year period. Wealth has also grown faster than average in India, even allowing for population growth. These growth performances outstrip those of Europe and North America, which are similar to the global average. Wealth growth in Africa has been faster than for the world as a whole, but the excess is due to higher population growth.

Performance in the sub-periods shows further contrasts. Wealth growth in India and Africa was not far behind China during 2000-2005, but China increased its lead from 2005 to 2010. This is surprising, as China suffered heavily during 2007-2008. However, it bounced back quickly, and has continued gaining ground year-on-year. Equally important, China's exchange rate policy has ensured that its performance has not been unduly affected by currency movements. This contrasts with Africa and India, where depreciating currencies have offset underlying wealth growth since 2010, halting the progress seen earlier. When wealth is valued in current US dollars, losses have been recorded since 2010 in every region other than North America, Asia-Pacific and China. Furthermore, wealth growth has been trending downwards for the world as a whole, and for each region except North America, which has been the workhorse of global wealth growth in recent years, growing by more than twice the global average since 2010. Interestingly, the appreciating US dollar is only part of the story, as the region has been outpacing the world even when constant exchange rates are used.

Examining performance using constant exchange rates shows that while growth is not plummeting, it has decelerated recently (Figure 5). Although North America had very slow growth over 2005-2010,

all regions experienced wealth growth in each of the sub-intervals. This confirms that exchange rate movements mask a broadly positive wealth picture in most of the world. In part, this difference reflects consumer price inflation in the developing world, which is typically higher than in Europe or North America, especially now that inflation has become very low in the advanced economies. Nevertheless, wealth growth has undeniably been on a declining path. In regions such as India and China, this is more evident, as wealth growth has more than halved compared to the previous five years.

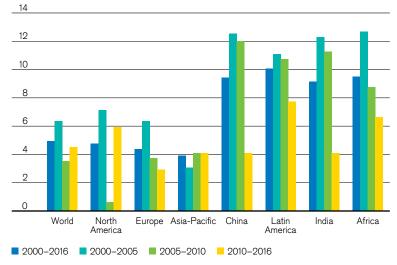
#### Trends in wealth components

The three components of wealth - financial assets, non-financial assets and debts - have moved in tandem for much of the period. Figure 6 displays each of these components when converted into average values per adult, in order to discount changes in the adult population over time. Net worth per adult in USD rose by 67% during 2000-2016, but has been effectively flat since 2007, rising until 2013 and then losing all the gains thereafter. Among the components of wealth, only financial assets are up since 2007; non-financial assets and debts are down 5.6% and 4.5% respectively, despite the slight uptick in the last 12 months. Using constant USD exchange rates, however, yields a smoother graph with continuous growth since 2008, and new peak levels recorded every year from 2012 onwards. Thus, short-term currency movements against the US dollar can sometimes obscure the true trend over time, which is one of solid, but unspectacular, wealth growth, with just a single setback in 2007-2008.

Financial assets accounted for 56% of gross wealth at the start of the century. Non-financial assets grew at a faster pace early on, causing the share of financial assets to decline to 50% by 2008, but the trend reversed after the financial crisis, and financial assets now comprise around 55% of gross wealth. Looking at absolute gains, gross wealth per adult has increased by USD 24,900 since 2000, of which a little over half -USD 13,000 - is due to gains in financial wealth. Figure 7 provides more details, by plotting the year-on-year change in wealth per adult, and identifying the contributions of each component of wealth. The graph illustrates well the slowdown in growth after the financial crisis, and the dominant contribution of financial assets to the modest growth that has been achieved.

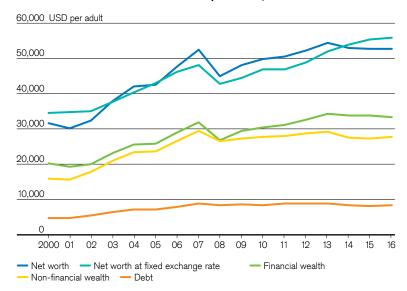
The time series for debt has moved broadly in line with that of non-financial assets. Over the entire period, debt has been the fastest growing component of wealth. While debt strictly speaking has a negative impact on net worth, its overall contribution can be regarded as ambiguous, given that rising debt fuels demand for assets and supports asset price inflation. In that respect, its rapid

Figure 5 Annual average wealth growth (%) by region, 2000-2016, constant exchange rates



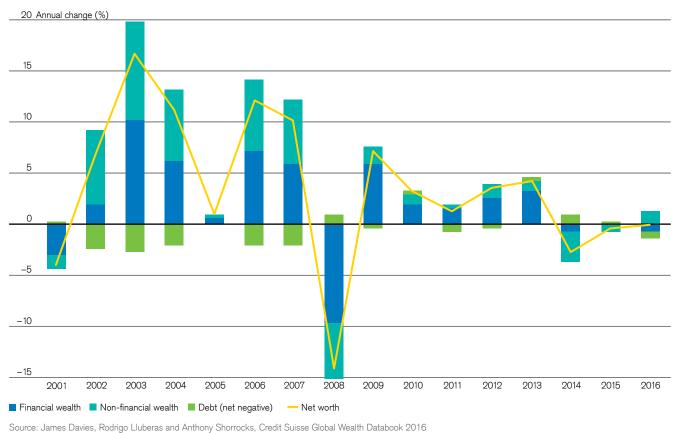
Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 6 Global trends in assets and debts per adult, 2000-2016



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 7 Annual contribution (%) to growth of wealth per adult by component, 2000-2016



growth prior to 2007 and its subsequent decline may help explain the time path of changes in other components of wealth. Expressed as a share of net worth, debt peaked at 19% in 2008 (the year of falling asset prices), and has since declined to around 16% today. It should be noted that debt levels and trends differ widely across countries. This century, household debt has grown particularly rapidly in transition countries, and more recently in emerging market economies.

# Trends in wealth inequality

Figure 8 displays the time series for global wealth inequality during 2000-2016, as captured by the wealth shares of the top groups. Our calculations indicate that the top 1% of global wealth-holders started the millennium owning 49.6% of all household wealth. This share declined slowly and steadily until it reached 45.4% in 2009. The downward trend then reversed and the share rose each year, passing the 2000 level in 2014. We estimate that the top percentile now own 50.8% of global household assets.

The shares of the top 5% and top 10% of wealthholders show a similar pattern. The share of the top 5% dropped by 3.5% points between 2000 and 2007, then flattened out until 2010, when it began rising again. The share is now 77.7%,

which is slightly above the 2000 level of 77.2%. Meanwhile, the share of the top decile declined from a peak of 89.4% in 2000, to a low of 86.5% in 2007, then began climbing slowly after 2010. We estimate the current share of the top wealth decile to be 89.1%, again close to the level at the start of the century.

Changes in wealth inequality happen very slowly, so it is difficult to identify the drivers of these trends. However, the value of financial assets especially company securities - is likely to be an important factor, because wealthier individuals hold a disproportionate share of their assets in financial form. Adding the time series for the share of financial assets to Figure 8 reveals a strong resemblance to the graphs of top wealth shares this century. On average, the share of the top percentile is 5.3% below the share of financial assets. The 4.3% point rise in the share of financial assets since 2008 therefore suggests that the top percentile share should have risen from the 45.5% recorded in 2008 to 49.8% in 2016, which is not far from the 50.8% actually estimated. The future implications of this correlation are especially significant. If equity prices do not rise as fast in the years ahead, and the share of financial wealth stabilizes, or even declines, then the rise in wealth inequality seen in recent years may halt, and possibly reverse.

#### Trends in median wealth

Median wealth values relate to the circumstances of the average adult, so trends in median wealth within countries or regions are a good reflection of how the average person has fared over time. Although the countries with the highest median wealth are located in Europe and the Asia-Pacific region, North America leads the regional ranking by a huge margin. Median wealth in North America is currently around four times the level in Europe, ten times the level in China, and more than 100 times the level in Africa.

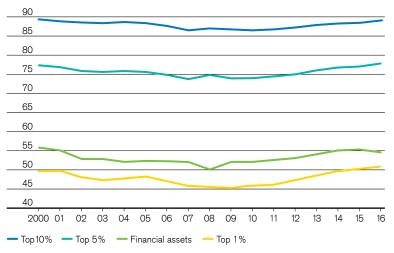
Global median wealth per adult (in current USD) rose continuously during the early years of the century, almost tripling in value, from USD 1,290 in 2000 to USD 3,250 in 2007, before dropping to USD 2,600 in 2008 (Figure 9). It recovered briefly, but fell year-on-year from 2010 onwards down to USD 2,220, below the low point recorded after the financial crisis. Part of the decline is due to adverse exchange rate movements, but rising inequality is the main reason why the global trend in median wealth has not followed the path of mean wealth per adult shown in Figure 6.

The trend within each of the regions broadly echoed the global pattern until the financial crisis, although the rise was notably faster in Europe, aided by currency appreciation versus the US dollar. Most regions have also followed the global trend downwards since 2010, and median wealth is now close to the value recorded a decade ago. There are exceptions, however. Median wealth levels in China and North America have risen more or less continuously since 2008, and the levels achieved during the past three years are significantly above the pre-crisis peak values.

#### Trends in the number of millionaires

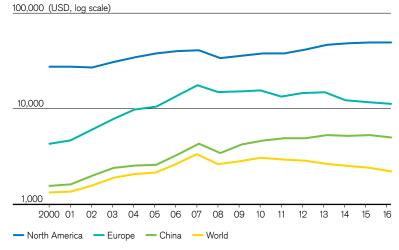
No other segments of the wealth pyramid have experienced as great a transformation this century as the millionaire and ultra high net worth (UHNW) segments. The number of millionaires has increased by 155%, while the number of UHNW individuals has risen by 216%, making them by far the fastest-growing group of wealth-holders. In large part this is due to the fact that the millionaire and UHNW group bounds are static and absolute, while the whole distribution of wealth is shifting as the world becomes a wealthier place, progressively lowering the bar for membership over time. Increasing inequality can also boost the speed at which new millionaires are created, although the fact that wealth inequality is roughly unchanged since the start of the century suggests that inequality was not the primary driver of rising UHNW numbers at the global level.

Figure 8 Share (%) of top wealth-holders in global wealth and share (%) of financial assets, 2000-2016



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 9 Median wealth per adult 2000-2016, selected regions



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 10

Cumulative change in the number of millionaires since 2000, by regional/income groups

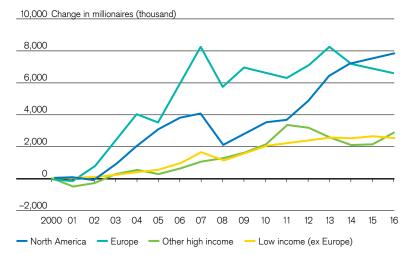
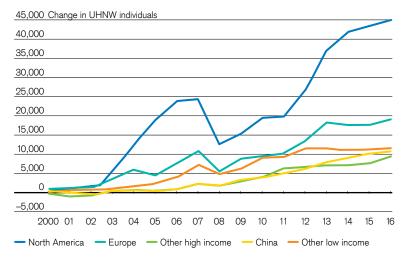


Figure 11

Cumulative change in the number of UHNW individuals since 2000, by regional/income groups



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

# The regional origins of new millionaires and UHNW individuals

The most interesting aspect of the growth in millionaire numbers is the country of origin of the "new millionaires"— i.e. those added to the worldwide stock. Our database confirms that the make-up of the millionaire segment is changing fast. The 12.9 million millionaires in the world in 2000 were heavily concentrated (96%) in high income economies. Since then, 20 million "new millionaires" have been added to the total, of whom approximately 2.6 million — 13% of the total additions — have originated from emerging economies (Figure 10).

The transformation is even more remarkable In the UHNW segment. Emerging economies accounted for 7% of the segment in 2000, but have seen 24% of the growth (or 22,600 adults) since then. China alone added an estimated 10,900 adults – 11% of the new UHNW individuals in the world. As a result, emerging nations are now home to 18% of the world's UHNW population. Among richer economies, North America has added more than twice as many new UHNW members as high-income Europe, which is not surprising given that North America was home to 64% of all UHNW individuals in 2000, against Europe's 18%.

## Summary

After the turn of the century, there was at first a rapid rise in global wealth, with the fastest growth in China, India, and other emerging economies, which accounted for 25% of the rise in wealth, although they owned only 12% of world wealth in the year 2000. Global wealth declined in 2008, but has trended slowly upwards since, at a significantly lower rate than before the financial crisis. In fact, wealth has fallen in USD terms in all regions other than North America, Asia-Pacific, and China since 2010. On a per-adult basis, wealth has barely grown at all, and median wealth has fallen each year since 2010. These disappointing trends are in part due to US dollar appreciation - in local currency terms, wealth has risen in every region since 2010, although not very fast in most cases. Financial wealth trended downward as a fraction of global wealth until 2007-2008, then moved in the opposite direction until a year ago, when the share declined once more. This mirrors the fall of the share of the top 1% of wealth-holders, from 49.6% in 2000 to 45.4% in 2009, and its subsequent rise to 50.8% in mid-2016, reflecting the importance of financial assets in the portfolios of the wealthy. The number of millionaires, which fell in 2008, showed a fast recovery after the financial crisis, and is now more than double its 2000 figure.



# The global wealth pyramid

This chapter examines the entire wealth pyramid, from the bottom and middle layers at the base up to the wealthiest individuals at the top. The 3.5 billion adults with wealth below USD 10,000 account for 2.4% of global wealth. In contrast, the 33 million millionaires comprise less than 1% of the adult population, but own 46% of household wealth. The past year saw a slight increase in the number of US dollar millionaires and high net worth individuals, with Japan the main beneficiary due to appreciation of the yen.

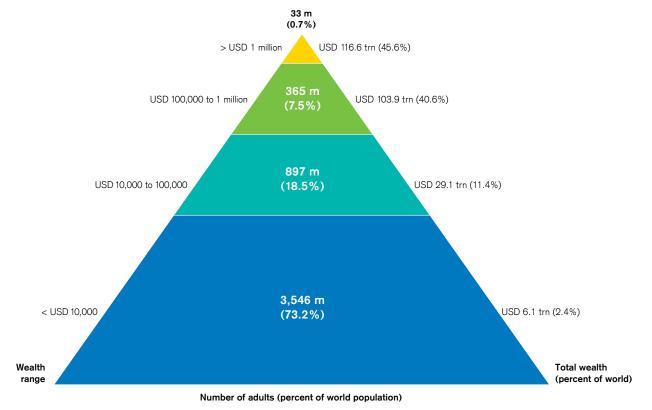
## Wealth differences within and between countries

Wealth differences between individuals occur for many reasons. Variation in average wealth across countries accounts for much of the observed inequality in global wealth, but there is also considerable disparity within countries. Those with low wealth are disproportionately found among the younger age groups, who have had little chance to accumulate assets. Others may have suffered business losses or personal misfortune, or live in regions where prospects for wealth creation are more limited. Opportunities are also sometimes constrained for women or minorities. In contrast. many individuals can be found at the other end of the spectrum who have acquired large fortunes through a combination of talent, hard work and good luck.





Figure 1 The global wealth pyramid



The wealth pyramid in Figure 1 captures these differences. The large base of low wealth-holders underpins higher tiers occupied by progressively fewer adults. We estimate that 3.5 billion individuals - 73% of all adults in the world - have wealth below USD 10,000 in 2016. A further 900 million adults (19% of the global population) fall in the USD 10,000-100,000 range. While average wealth is modest at the base and in the middle tiers of the pyramid, total wealth there amounts to USD 35 trillion, underlining the economic importance of this often overlooked segment.

#### The base of the pyramid

The layers of the wealth pyramid are quite distinctive. The base tier has the most even distribution across regions and countries (Figure 2), but also the most uneven range of personal circumstances. In developed countries, only about 20% of adults fall within this category, and for the majority of these individuals, membership is either transient due to business losses or unemployment, for example - or a lifecycle phase associated with youth or old age. In contrast, more than 90% of the adult population in India and Africa falls within this range. For many residents of low-income countries, life membership of the base tier is the norm rather than the exception.

# Mid-range wealth

In terms of global wealth, USD 10,000 -100,000 is the mid-range band. It covers around 900 million adults who represent a high proportion of the middle class in many countries. The average wealth of this group is guite close to the overall global mean wealth, and its combined net worth of USD 29 trillion provides it with considerable economic clout. India and Africa are under-represented in this segment, whereas China's share is disproportionately high. China and India provide an interesting contrast. India accounts for just 3.1% of those with mid-range wealth, and that share has changed very little during the past decade. In contrast, China accounts for 33% of those with wealth between USD 10,000 and USD 100,000, ten times the number of Indians, and double the proportion of Chinese in 2000.

# The high wealth bands

The top tiers of the wealth pyramid - covering individuals with net worth above USD 100,000 comprised 5.9% of all adults at the turn of the century. The proportion rose rapidly until the financial crisis, but has remained quite stable since that time. It currently comprises 8.2% of the global total, nearly the same as in mid-2015. Regional

composition differs markedly from the strata below. Europe, North America and the Asia-Pacific region (omitting China and India) together account for 89% of the group, with Europe alone providing 144 million members (36% of the total). This compares with just 5 million adult members (1.2% of the global total) in India and Africa combined.

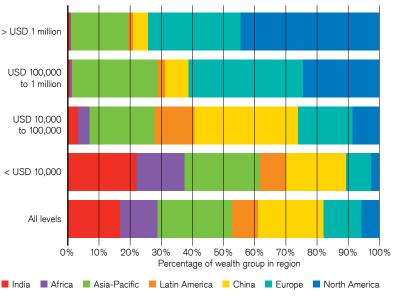
The pattern of membership changes once again for the US dollar millionaires at the top of the pyramid. The number of millionaires in any given country is determined by three factors: the size of the adult population, average wealth, and wealth inequality. The United States scores high on all three criteria, and has by far the greatest number of millionaires at 13.6 million, or 41% of the worldwide total (Figure 3). For many years, Japan held second place in the millionaire rankings by a comfortable margin - with 13% of the global total in 2011, for example, which was double the number of the third placed country. However, the number of Japanese millionaires has fallen, alongside a rise in other countries. As a consequence, Japan lost its second place to the United Kingdom in 2014, but bounced back again this year because of exchange rate appreciation.

After a drop this year, the United Kingdom falls to third place with 7% of millionaires worldwide, followed by Germany, France, and China with 5% each, and Italy, Canada, and Australia with 3% each. Switzerland, Korea, Spain, and Taiwan are the four other countries with more than 350,000 millionaires, which is the minimum requirement for a one percent share of the global total.

# Changing membership of the millionaire group

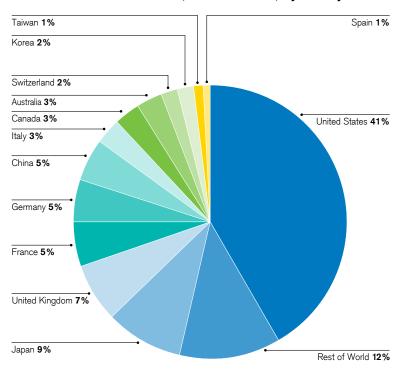
Year-on-year variations in the number of millionaires can often be traced to real wealth growth and exchange rate movements. Last year, we reported that widespread depreciation against the US dollar had resulted in a significant reduction in the number of millionaires between mid-2014 and mid-2015. This year, the changes in both directions have been relatively modest: a net increase of 596,000 or 2%. Japan reversed the trend of recent years, adding more than a third to its total (up 738,000 to 2.8 million). Millionaire numbers rose again in the United States, but only by 283,000, which is less than the typical rise in the period since the financial crisis. The downside was experienced by the United Kingdom, which lost around 15% of its millionaires (406,000 adults), and to a lesser extent by Switzerland (down 58,000), and China (down 43,000).

Figure 2 Regional membership of global wealth strata



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Figure 3 Number of dollar millionaires (% of world total) by country



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Table 1

Change in the number of millionaires by country, 2015–2016

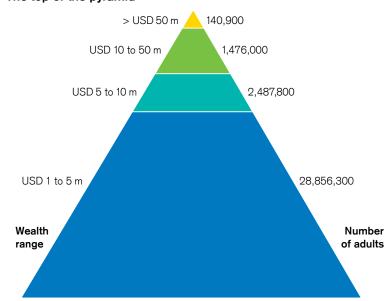
| Main gains    |        | Adults (thousand) with wealth above USD 1 million |        |  |  |  |  |  |
|---------------|--------|---|--------|--|--|--|--|--|
| Country       | 2015   | 2016  | Change |  |  |  |  |  |
| Japan         | 2,088  | 2,826   | 738    |  |  |  |  |  |
| United States | 13,271 | 13,554  | 283    |  |  |  |  |  |
| Germany       | 1,593  | 1,637   | 44     |  |  |  |  |  |
| New Zealand   | 133    | 166   | 33     |  |  |  |  |  |
| Canada        | 1,092  | 1,117   | 25     |  |  |  |  |  |
| Belgium       | 291    | 307   | 16     |  |  |  |  |  |
| Indonesia     | 99     | 112   | 13     |  |  |  |  |  |
| Brazil        | 162    | 172   | 10     |  |  |  |  |  |
| Ireland       | 103    | 110   | 7      |  |  |  |  |  |
| Spain         | 379    | 386   | 7      |  |  |  |  |  |
| World         | 32,335 | 32,931  | 596    |  |  |  |  |  |

| Main losses    |        | Adults (thousand) with wealth above USD 1 million |        |  |  |  |  |  |
|----------------|--------|---|--------|--|--|--|--|--|
| Country        | 2015   | 2016  | Change |  |  |  |  |  |
| United Kingdom | 2,631  | 2,225   | -406   |  |  |  |  |  |
| Switzerland    | 774    | 716   | -58    |  |  |  |  |  |
| China          | 1,633  | 1,590   | -43    |  |  |  |  |  |
| Taiwan         | 383    | 356   | -27    |  |  |  |  |  |
| Mexico         | 114    | 99  | -15    |  |  |  |  |  |
| Russia         | 94     | 79  | -15    |  |  |  |  |  |
| Argentina      | 41     | 28  | -13    |  |  |  |  |  |
| Australia      | 1,072  | 1,060   | -12    |  |  |  |  |  |
| Norway         | 207    | 195   | -12    |  |  |  |  |  |
| Italy          | 1,143  | 1,132   | -11    |  |  |  |  |  |
| World          | 32,335 | 32,931  | 596    |  |  |  |  |  |

# High net worth individuals

The usual source of information on wealth data – official household surveys – tends to become less reliable at higher wealth levels. To estimate the pattern of wealth holdings above USD 1 million, we therefore supplement the survey data with figures from "rich lists" such as the Forbes annual tally of global billionaires. These rich list data are pooled for all the years since 2000, and well-known statistical

Figure 4
The top of the pyramid

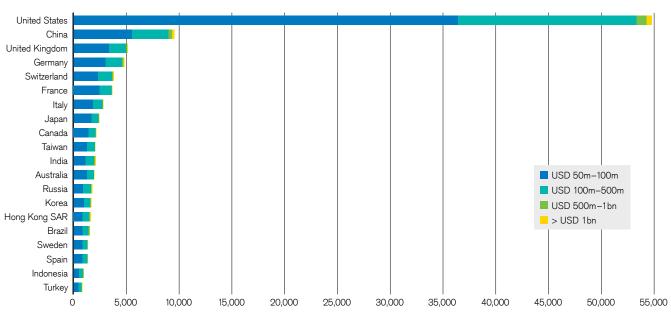


Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016 regularities are then used to estimate intermediate numbers in the top tail which are consistent with the Forbes data. This produces plausible estimates of the global pattern of asset holdings in the high net worth (HNW) category from USD 1 million to USD 50 million, and in the ultra-high net worth (UHNW) range from USD 50 million upwards.

While the base of the wealth pyramid is occupied by people from all countries at various stages of their lifecycles, HNW and UHNW individuals are heavily concentrated in particular regions and countries, and tend to share more similar lifestyles, for instance participating in the same global markets for luxury goods, even when they reside in different continents. The wealth portfolios of these individuals are also likely to be more similar, with a focus on financial assets and, in particular, equities, bonds and other securities traded in international markets.

For mid-2016, we estimate that there are 33.0 million HNW adults with wealth between USD 1 million and USD 50 million, of whom the vast majority (28.9 million) fall in the USD 1-5 million range (Figure 4). There are 2.5 million adults worth between USD 5 million and 10 million, and 1.5 million more have assets in the USD 10-50 million range. In terms of HNW membership, Europe briefly overtook North America in 2007, but North America regained the lead in 2010, and now accounts for a much greater number, namely 14.7 million (45% of the total), compared to 9.8 million (30%) in Europe. Asia-Pacific countries, excluding China and India, have 6.0 million members (18%), and another 1.6 million are found in China (5% of the global total). The remaining 816,000 HNW individuals (2% of the total) reside in India, Africa or Latin America.

Figure 5 Ultra high net worth individuals, 2016: Top 20 countries



# Ultra-high net worth individuals

Our calculations suggest that 140,900 adults worldwide can be classed as UHNW individuals, with net worth above USD 50 million. Of these, 50,800 are worth at least USD 100 million, and 5,200 have assets above USD 500 million. The total number of UHNW adults is about 3% higher than a year ago (4,100 individuals), and the increase has been relatively uniform across regions, except for the higher than average rise in Asia-Pacific countries (10%).

North America dominates the regional rankings, with 73,400 UHNW residents (52%), while Europe has 29,800 (21%), and 18,800 (13%) live in Asia-Pacific countries, excluding China and India. Among individual countries, the United States leads by a huge margin with 70,400 UHNW adults, equivalent to 50% of the group total (Figure 5). This is a small increase of 500 compared to mid-2015. China occupies second place with 11,000 UHNW individuals (up 640 on the year), followed by Germany (6,100, up 500). The United Kingdom lost by far the greatest number of UHNW individuals (down 700 to 4,700), but still heads France (4,100, up 600). In contrast, Japan gained the most (3,600, up 1,000), and now occupies sixth place. Italy (3,300, up 400), Canada (2,900, up 100), Korea (2,500, up 200), and India (2,300, up 100) are the other countries with the highest numbers of UHNW individuals.

#### The wealth spectrum

The wealth pyramid captures the contrasting circumstances between those with net wealth of a million US dollars or more in the top echelon, and those lower down in the wealth hierarchy. Discussions of wealth holdings often focus exclusively on the top tail. We provide a more complete and balanced picture, believing that the base and middle sections are interesting in their own right. One reason is the sheer size of numbers and their political power. However, their combined wealth of USD 35 trillion also yields considerable economic opportunities, which are often overlooked. Addressing the needs of these asset owners can drive new trends in both the consumer and financial industries. China, Korea and Indonesia are examples of countries where individuals have been rising rapidly through this part of the wealth pyramid. India has not shown similar progress to date, but has the potential to grow rapidly in the future from its low starting point.

While the middle and lower levels of the pyramid are important, the top segment will likely continue to be the main driver of private asset flows and investment trends. Our figures for mid-2016 indicate that there are now nearly 33 million HNW individuals, including 1.6 million in China, and more than 6 million in other Asia-Pacific countries. At the apex of the pyramid, 140,900 UHNW adults are each worth more than USD 50 million. This includes 11,000 UHNW individuals in China (8% of the global total), a 100-fold rise since the turn of the century. A further 8,500 UHNW adults (6% of the total) can be found in Hong Kong, India, Korea, and Taiwan.

# The bottom billion

This chapter looks at the bottom half of the global wealth distribution, giving particular attention to those in the bottom 20%, who currently number around one billion adults. Members of the bottom billion were once predominantly poor people in developing countries, but a significant and growing number are now found in the richest countries. Furthermore, the net worth of those in the bottom billion is increasingly likely to be negative, as credit easing generates larger personal debts.

> The factors affecting middle class wealth – for example house prices and mortgage rates - are monitored carefully in the media. The changing fortunes of the wealthiest individuals in the world are subjected to intense scrutiny. However, the assets and debts of the 2.4 billion adults in the bottom half of the global wealth distribution are often neglected. This chapter summarizes what we know about this group, with a special focus on the roughly one billion adults who fall within the bottom quintile (i.e. the lowest 20%).

> One reason for past neglect of the bottom billion is that membership was heavily concentrated in poorer parts of the developing world. The problem of low assets could therefore be dismissed as just another facet of low resources and low living standards associated with poverty. This is still largely true, and likely to continue: people with low income and high needs will always struggle to acquire and retain assets. However, the past 20 years have seen an increasing incidence of low wealth in high income countries. Successive wealth surveys document this trend in individual countries. Another important development is the increasing likelihood that low wealth holdings involve negative net worth, with debts exceeding the value of assets. This trend applies not only to developed

countries, but throughout the world, as the latest wealth survey data for China and India attest. It assumes particular significance in the context of concern about growing wealth inequality, because - in simplistic terms - growing inequality can arise because the wealthiest individuals pull away at the top, or the least wealthy individuals fall further behind at the bottom. Public discussion tends to focus on the top tail, but attention in the future may well shift towards adverse movements in the net worth of the wealth poor.

Another reason for neglect lies in data problems. Personal debt is especially important amongst the wealth poor, and is sometimes difficult to estimate given reluctance among survey respondents to admit to indebtedness. Furthermore, offsetting assets such as furniture, clothes and household appliances are typically disregarded in household balance sheets. There are limits as to what extent these problems can be overcome, but we strive to draw on all the available sources, including numerous micro-data sets, in order to address a number of important questions, such as: where are low wealth holders located around the globe?; what household characteristics are most associated with the bottom wealth groups?; what types of assets do they own?



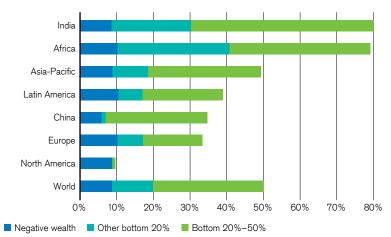
#### The global lower tail

The world has a great number of people with relatively little wealth. According to our estimates, half of all adults in the world own less than USD 2,222, and the bottom 20% of adults own no more than USD 248. The average wealth of people in these slices of the distribution is correspondingly low: just USD 159 for the bottom 50% and minus USD 1,079 for the bottom 20%. The negative mean wealth of the bottom quintile reflects the fact that 44% of this bottom group are debtors, with average net debt of USD 2,628.

Figure 1 shows the percentage of adults in each region with negative wealth, and the percentage in the global bottom half and the global bottom quintile. The most striking feature is the similarity across regions in the proportion with negative wealth. This was not evident in the past: surveys for China and India used to display low incidences of negative wealth. It was widely believed that debt was underreported, so Figure 1 may reflect improved data collection. However, the problems of data quality caution against placing too much confidence in the pattern of negative wealth holdings that we reveal.

In the context of the broader lower tail categories, the percentage of adults differs greatly between regions. India and Africa both have a disproportionate share: 80% of adults in India are in the global bottom half, and Africa is close behind at 79% (Figure 1). The level in Asia-Pacific (49%) matches the global average, whilst Latin America (39%) is lower than average. It is interesting to note that the proportion of low wealth holders in China – with 35% of adults in the global bottom half – is very similar to the European figure of 34%. Levels in North America are significantly lower than anywhere else: only 9% of adults have wealth below the global median value.

Figure 1
Share of adults in lower half of global wealth distribution, 2016, by region



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016 While the gap between Europe and North America may seem surprising, Europe is a less homogeneous region than North America. As well as high wealth countries in the North, there are countries with much lower wealth in the East and South. The contrast between China and India may also come as a surprise, given their similarities in terms of huge populations and rapid growth, but their representation in the global bottom half is very different, and the discrepancy is even greater in the bottom quintile, which covers 31% of Indians but only 7% of Chinese.

Another interesting observation is that even in North America, there are many people in the global bottom quintile. This captures the significant number of low-wealth citizens in high-income countries, including many whose debts exceed their assets. In North America, almost all of those in the global bottom quintile have negative wealth. To some extent, this reflects poverty and the relative ease of borrowing, but it also reflects the fact that the valuations of offsetting assets and debts can be treated differently. Taking out a mortgage to buy a house makes little difference to net worth, but consumer borrowing often does not produce an asset whose value would offset it in the calculation of net worth. Similarly, student loans help create human capital, but do not produce a balancing asset in the household wealth calculations.

## Where do the bottom billion live?

With both large populations and a high incidence of low wealth, Africa and India – as expected – account for a high proportion of the bottom tail. As Figure 2 shows, 486 million members of the bottom quintile – almost exactly half of the bottom billion – live in Africa or India, and 1.1 billion adults there fall within the bottom half of the global wealth distribution. The other major concentration is in the Asia-Pacific region, particularly the low-income countries of South Asia and South East Asia. Together, Africa, India, and Asia-Pacific account for 72% of the bottom billion by wealth, and 70% of the bottom half. The remaining 30% are mainly spread across China, Europe, and Latin America.

Figure 2 also reports the number of adults in the bottom billion for all countries that have more than 20 million members. India leads again, but due to its huge population, China now figures significantly, with 72 million members, despite its relatively low incidence rate. Population size is evidently the principal reason why other countries are listed: populous African countries – Nigeria, Ethiopia, and the Congo DR – contribute 35, 27, and 25 million members respectively, while in the Asia-Pacific region, Bangladesh, Indonesia, and Pakistan supply 33, 30, and 22 million respectively. Latin America has only one representative – Brazil with 24 million members – with the sizeable low-wealth population in the region being split between many smaller



Figure 2 Number of adults (million) in lowest global wealth quintile, 2016, by region and country

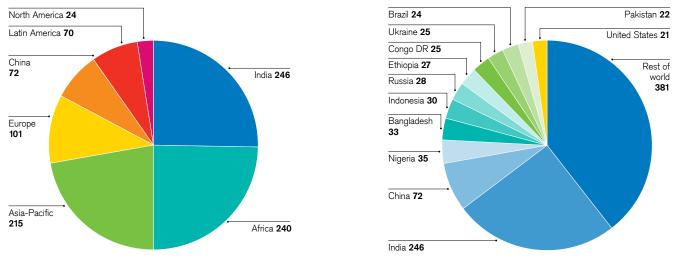
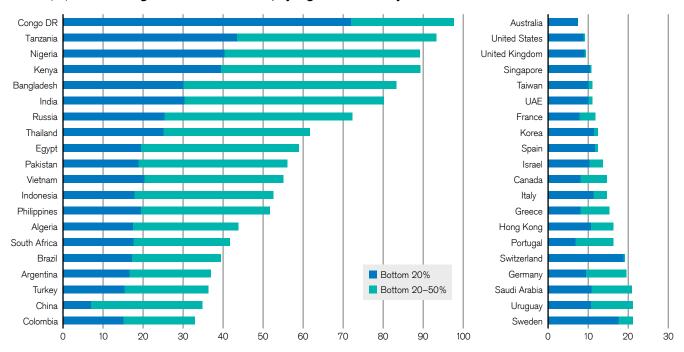


Figure 3

Share (%) of adults in global lower wealth tail, by region and country



countries. Finally, the USA is also listed, with 21 million members, due to its large population and fairly high incidence of low wealth. The appearance of the USA in the asset poverty list alongside Pakistan, Congo, and Ukraine may surprise some, although the reasons given earlier make it understandable.

#### Incidence of low wealth across countries

While differences across countries in the absolute number of adults in the wealth lower tail are important, so too are variations in the incidence rate. Figure 3 shows the percentage of adults in selected countries in the global lowest 20% or 50% in 2016. There is a very wide spread. Countries from Africa and low-income parts of the Asia-Pacific region dominate the highest incidence ranges, in terms of both the bottom 20% and the bottom 50%. Here, it is typical for at least 40% of a country's population to be in the bottom 50%, and for at least 20% to belong to the bottom quintile. Latin America, Eastern Europe, and Southern Europe appear in the middle range, with 20% – 40% of adults in the bottom half of the global wealth distribution. Then come Northern Europe, North America, and high-income Asia-Pacific countries, with relatively low incidence. Interestingly, the frequency of net-indebted adults is fairly constant across countries and regions. What is noticeable about Northern Europe and North America is the scarcity of wealth holdings that are positive but small enough to fall within the bottom half of the

global wealth distribution. There are some deviations from this pattern, of course. Russia has high incidence, for example, compared to other European countries such as Poland and the Czech Republic, while Chile and Uruguay – the highest income countries in Latin America – have markedly lower incidence than other countries in their region.

#### Change in incidence over time

While the proportion of global adults in the bottom wealth quintile does not change over time, the pattern of membership can vary across regions and countries. Figure 4 shows the change in the membership share for 2000-2016, subdivided into the years up to the financial crisis, and the period since then. For most individual countries, the changes in membership barely register, but for regions the changes are quite evident. Africa increased its share of the bottom quintile from 18.6% in 2000 to 24.7% in 2016, with two-thirds of the increase occurring since 2008. The share also rose significantly in India, but by a little less than in Africa -4.6% overall compared to 6.1% - and has been slowing since the financial crisis. The explanation for these large changes is clear: both regions experienced rapid population increases, and the growth of household wealth was unable to keep pace, at least when measured in USD using current exchange rates.

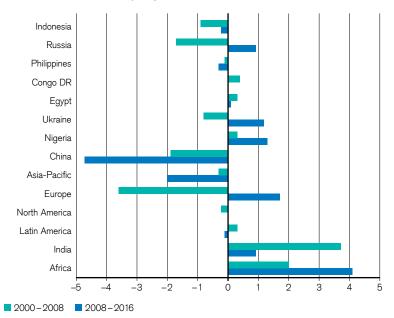
Wealth growth has been faster in China and, more importantly, population growth has been slower. As a consequence, Chinese representation in the bottom quintile of wealth holders has halved, dropping from 14.1% in 2000 to 12.2% in 2008, and then more precipitously to 7.5% in 2016. The rest of the Asia-Pacific region also had a favorable wealth/population growth environment, which reduced its proportion of the lowest wealth quintile from 24.5% to 22.2%, primarily since 2008. Wealth and population growth were evenly balanced in Latin America, so its share of the bottom quintile has barely changed. North America also saw little change for different reasons: wealth grew considerably faster than the adult population, but the wealth growth bypassed those in the bottom global quintile, who are predominantly net debtors. Europe was the anomaly: membership of the bottom quintile fell significantly, from 12.3% in 2000 to 8.7% in 2008, but then rose back to 10.4% in 2016. This is largely attributable to the wealth repercussions of an appreciating euro (and other currencies) during 2000-2008, and to the reversal of the trend during 2008-2016.

Similar considerations apply to individual countries, but the global impact is often imperceptible due to relatively small populations. Population growth caused the share of members from Nigeria to almost double, from 2.0% in 2000 to 3.6% in 2016. Congo and Egypt also experienced a modest rise (both up 0.4%), although decreasing average wealth is part of the explanation for Egypt. Indonesia and the Philippines both succeeded in reducing their share of the bottom wealth quintile, by 1.1% and 0.4% respectively. Russia also improved during the early years, almost halving its share from 3.7% in 2000 to 2.0% in 2008, but that climbed back to 2.9% in 2016, largely because of the weakness of the ruble. Ukraine followed a similar - but even more volatile - pattern; its share dropped from 2.1% in 2000 to 1.3% in 2008, and then rose to 2.5% in 2016 as a result of currency depreciation and deteriorating wealth prospects.

#### Determinants of low wealth within countries

To appreciate who belongs to the lower global wealth tails - apart from simply their country or region of residence - it is necessary to obtain information about the characteristics of low wealth holders within individual countries. Fortunately, there is a growing list of countries that have household surveys of assets and debts which can be used for this purpose. The European Central Bank (ECB) has coordinated surveys that give good coverage in Northern and Southern Europe (seven and five countries respectively). To this, we have been able to add seven other countries from Eastern Europe, the western hemisphere, and South Asia. This allows for a broad international comparison of wealth-holding at micro level. To achieve comparability, we focus on the characteristics of the bottom quintile of wealth holders within each country.

Figure 4 Change in the percentage share of the bottom global wealth quintile, 2000-2016, by region and selected countries



Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Unsurprisingly, low wealth tends to be associated with low income or high debt. In most countries, it is also associated with owning few real assets: on average 58% of households that have less than a quarter of their assets in non-financial form are in the bottom wealth quintile. Most households with few real assets are not home-owners, so this finding supports the contention that home-ownership is a key element in building household wealth.

Table 1 summarizes the "risk factors" for low wealth associated with various household characteristics. The cell entries refer to the extra likelihood of being in the bottom quintile compared to a benchmark household consisting of a married couple with no children, and a male head aged 45-54 who is employed and has a tertiary education. For each country group, the factor that boosts the likelihood of being "wealth poor" the most is highlighted in red, while the factor that reduces that likelihood the most is in green.

The results show that the "risk factors" most associated with the bottom wealth quintile are being young, single, or poorly educated. Secondary factors are having three or more children, or being in the "other not working" category (i.e. unemployed or disabled, rather than retired). In most places, the biggest "risk" is being aged below 35, which raises the probability by 15% on average. This is not unexpected, and reflects the fact that those younger than 35 are at the beginning of their life-cycle of saving and wealth accumulation. In recent years however, the young have faced particular difficulties, including a disproportionate

Table 1 Additional risk (%) of being in the bottom wealth quintile relative to a benchmark household, by household characteristics

|                     | Northern<br>Europe | Southern<br>Europe | Slovakia<br>and<br>Slovenia | Chile and<br>Uruguay | Indonesia | UK    | USA   | All countries |
|---------------------|--------------------|--------------------|-----------------------------|----------------------|-----------|-------|-------|---------------|
| Age of head         |                    |                    |                             |                      |           |       |       |               |
| <35                 | 12.2               | 20.7               | 10.0                        | 5.9                  | 14.5      | 39.7  | 11.6  | 15.1          |
| 35-44               | 4.7                | 5.6                | 4.0                         | -0.7                 | 4.7       | 13.8  | 6.7   | 4.9           |
| 55-64               | -7.2               | -5.8               | -4.0                        | -0.3                 | -1.1      | -7.5  | -5.0  | -5.3          |
| 65-74               | -10.6              | -6.0               | -3.3                        | -3.9                 | -0.6      | -10.7 | -13.9 | -7.6          |
| 75+                 | -12.4              | -4.7               | 0.8                         | -3.6                 | 0.1       | -12.9 | -16.1 | -7.6          |
| Number of children  |                    |                    |                             |                      |           |       |       |               |
| 1                   | 0.9                | -2.3               | -1.1                        | 1.2                  | -4.9      | 5.2   | -2.4  | -0.4          |
| 2                   | 0.4                | -1.1               | 1.5                         | 4.7                  | -6.2      | 3.7   | 0.6   | 0.4           |
| 3+                  | 4.0                | 4.7                | 3.7                         | 4.4                  | -3.3      | 5.7   | 0.5   | 3.7           |
| Female Head         | 1.2                | 2.1                | -1.1                        | 1.2                  | -1.3      | -0.5  | 5.8   | 1.2           |
| Single Person       | 8.5                | 6.5                | 7.9                         | 2.9                  | 16.7      | 8.1   | 0.6   | 7.3           |
| Work status of head |                    |                    |                             |                      |           |       |       |               |
| Retired             | 2.1                | -1.8               | -11.7                       | -2.1                 | 6.9       | 1.3   | 3.7   | -0.5          |
| Other not working   | 7.4                | -0.4               | -6.7                        | -0.6                 | 5.6       | 1.2   | 3.2   | 2.4           |
| Education of head   |                    |                    |                             |                      |           |       |       |               |
| Primary             | 15.1               | 12.3               | 9.8                         | -4.3                 | 8.7       | 17.0  | 2.0   | 10.8          |
| Secondary           | 6.0                | 5.4                | 9.3                         | -0.2                 | 5.4       | 2.6   | 0.6   | 5.0           |

Characteristic associated with greatest likelihood of wealth poverty

Source: Authors' calculations using microdata from country-level household wealth surveys See James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

> rise in unemployment in the wake of the global financial crisis. The greater frequency and size of student loans are also likely to have increased the probability that the young will be in the bottom tail of the wealth distribution.

The likelihood of having low wealth declines as we move from the young to the middle-aged, and on to households with a head aged 55-64. While this is to be expected, we also see that the decline continues when the head is aged 65-74, or even above 75 years in Northern Europe, the United Kingdom or the United States. This may reflect a desire to maintain wealth to pass on to the next generation via bequest, or reluctance to "dissave" in the face of uncertainty about future income or the length of the remaining lifetime. It also reflects the fact that poor people tend to die earlier, so cohorts of survivors become wealthier on average.

Table 2 casts more light on the risk of being wealth poor by reporting the likelihood of being in the bottom wealth quintile for a range of typical household types. The groups with the greatest likelihood of being wealth poor are shown in red,

while those with the lowest chance are highlighted in green. Being young, single and female puts a person at relatively high risk everywhere, while being a young single mother with low education is generally worse than being a young single female with a good education and a job.

In Indonesia, a married couple aged 45-54 with a head who has high level of education and a job is least likely to be wealth poor among the household types considered. In line with the results in Table 1, however, there are couples in other countries aged 65-74 who do better than those aged 45-54, even if the head only has secondary education. In this age group, there is also little difference between couples whose head is still working, and those with retired heads.

# The likelihood of being asset poor

Risk factors are informative, but they do not reveal the composition of the lower wealth tail. A group with high risk but very small numbers will not feature strongly among the asset poor. For exam-

Table 2 Likelihood (%) of being in the bottom wealth quintile by household characteristics

|                              | Northern<br>Europe | Southern<br>Europe | Slovakia<br>and<br>Slovenia | Chile and<br>Uruguay | Indonesia | UK   | USA  |
|------------------------------|--------------------|--------------------|-----------------------------|----------------------|-----------|------|------|
| 1. Head aged < 35            |                    |                    |                             |                      |           |      |      |
| Single male, low ED, UN      | 55.8               | 54.2               | 31.2                        | 23.9                 | 57.8      | 81.6 | 32.0 |
| Single male, high ED, EM     | 24.6               | 33.9               | 28.9                        | 29.5                 | 37.6      | 54.5 | 25.8 |
| Single mother, low ED, EM    | 51.6               | 53.7               | 30.7                        | 26.5                 | 43.0      | 85.7 | 33.9 |
| Single female, high ED, EM   | 26.4               | 36.8               | 27.5                        | 31.1                 | 35.7      | 53.6 | 34.6 |
| 2. Head aged 45-54           |                    |                    |                             |                      |           |      |      |
| Couple, head has low ED, UN  | 36.0               | 26.9               | 0.1                         | 19.3                 | 17.4      | 32.0 | 20.0 |
| Couple, head has sec ED, EM  | 11.9               | 12.8               | 23.0                        | 24.4                 | 8.3       | 11.2 | 14.7 |
| Couple, head has high ED, EM | 7.2                | 8.3                | 11.8                        | 24.8                 | 5.2       | 8.8  | 14.0 |
| Single mother, sec ED, EM    | 22.6               | 21.1               | 32.2                        | 29.6                 | 19.0      | 19.4 | 22.2 |
| 3. Head aged 65-74           |                    |                    |                             |                      |           |      |      |
| Couple, head has sec ED, EM  | 4.1                | 9.0                | 21.1                        | 15.6                 | 11.8      | 2.0  | 3.1  |
| Couple, head has sec ED, RT  | 4.5                | 7.4                | 5.7                         | 13.3                 | 17.5      | 2.3  | 4.5  |
| Single female, sec ED, RT    | 11.0               | 13.6               | 9.6                         | 16.9                 | 33.5      | 5.1  | 7.9  |

Group with greatest likelihood of wealth poverty Group with lowest likelihood of wealth poverty

Note: ED = education; UN = unemployed; EM = employed; RT = retired Source: Authors' calculations using microdata from country-level household wealth surveys. See James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

ple, people with only primary education are usually at high risk of being wealth poor, but they do not form a large contingent of the wealth poor in countries where very few people have only primary schooling. Table 3 reports the breakdown in the bottom wealth quintile according to the age, sex, marital status, work status and education of the head, as well as the number of children. In all cases, households aged less than 35 are the largest age group among the asset poor. There is variation in other respects, however. The elderly form a small component in India and Indonesia, for example, but they make up a much larger proportion in Southern Europe, where the young are less prominent. These variations largely reflect differences in the age structure of overall populations across countries.

The impact of gender, education, and work status of the head on membership of the bottom wealth quintile differs significantly across countries. In Chile and Uruguay, for example, almost 70% of household heads in the bottom wealth quintile are female. In contrast, in India and Indonesia the

proportion is only about 20%. Whatever the cause, this suggests that policies to boost the wealth of female-headed families are likely to have more impact on the lower wealth tail in Chile and Uruguay than in India and Indonesia. Similarly, large differences are seen based on education, even between countries that are less widely separated geographically and economically. In Southern Europe, for example, a relatively high proportion of the low wealth group does not have a secondary education, whereas the corresponding proportion is much smaller in Northern Europe or North America.

Differences related to work status are also seen across countries. Households with employed heads form the largest group everywhere apart from the UK, so it is a mistake to imagine that the typical low wealth household has an unemployed head. Retirees constitute the second largest group in Southern Europe and the United States. Except for the UK, two-thirds or more of households in the bottom wealth quintile have a head who either is currently working, or is retired from work.

Table 3 Percentage composition of bottom wealth quintile by household characteristics, 2016

|                    | Northern<br>Europe | Southern<br>Europe | Slovakia<br>and<br>Slovenia | Chile and<br>Uruguay | India | Indonesia | UK   | USA  |
|--------------------|--------------------|--------------------|-----------------------------|----------------------|-------|-----------|------|------|
| Age of head        |                    | '                  | '                           |                      | '     | '         | '    |      |
| <35                | 36.1               | 27.0               | 32.4                        | 26.7                 | 31.8  | 40.4      | 42.1 | 38.7 |
| 35-44              | 20.6               | 21.5               | 18.6                        | 20.1                 | 27.6  | 20.8      | 24.9 | 19.4 |
| 45-54              | 17.4               | 15.2               | 19.1                        | 19.4                 | 20.0  | 14.7      | 14.6 | 17.3 |
| 55-64              | 11.9               | 10.3               | 11.3                        | 16.4                 | 11.9  | 11.9      | 7.5  | 14.5 |
| 65-74              | 7.2                | 11.7               | 12.4                        | 10.8                 | 6.3   | 8.4       | 5.4  | 5.0  |
| 75+                | 6.8                | 14.3               | 6.3                         | 6.7                  | 2.4   | 3.9       | 5.5  | 5.0  |
| Number of children |                    |                    |                             |                      |       |           |      |      |
| 0                  | 76.7               | 71.9               | 75.9                        | 26.8                 | na    | 37.1      | 57.4 | 56.2 |
| 1                  | 11.1               | 15.2               | 12.6                        | 22.1                 | na    | 30.9      | 19.9 | 17.6 |
| 2                  | 8.1                | 10.3               | 9.7                         | 20.8                 | na    | 20.6      | 15.9 | 14.9 |
| 3+                 | 4.1                | 2.6                | 1.8                         | 30.3                 | na    | 11.4      | 6.8  | 11.3 |
| Female head        | 54.3               | 53.1               | 54.4                        | 68.4                 | 15.7  | 27.5      | 45.6 | 44.1 |
| Single head        | 25.2               | 47.7               | 38.3                        | 47.8                 | 18.6  | 63.2      | 48.0 | 36.7 |
| Head's work status |                    |                    |                             |                      |       |           |      |      |
| Working            | 51.4               | 49.7               | 56.0                        | 50.4                 | na    | 66.6      | 33.3 | 64.1 |
| Retired            | 17.4               | 26.1               | 25.0                        | 15.2                 | na    | 4.5       | 6.1  | 22.8 |
| Other not working  | 31.2               | 24.2               | 19.0                        | 34.4                 | na    | 28.9      | 60.6 | 13.0 |
| Head's education   |                    |                    |                             |                      |       |           |      |      |
| Primary or less    | 15.4               | 41.1               | 4.4                         | 29.5                 | 62.1  | 65.5      | 24.4 | 16.1 |
| Seconday           | 66.8               | 44.4               | 83.3                        | 63.0                 | 31.1  | 27.3      | 53.4 | 33.7 |
| Tertiary           | 17.8               | 14.5               | 12.3                        | 7.5                  | 6.8   | 7.3       | 22.2 | 50.2 |

Source: Anthors' calculations using microdata from country-level household wealth surveys. See Credit Suisse Global Wealth Databook 2016.

#### Assets and debts of the lower tail

The type of assets held by low wealth holders, and their degree of indebtedness, are important to understanding the situation of the bottom billion. Figure 5 summarizes what can be gleaned from the ECB surveys for the Eurozone conducted mainly in 2010, and from the US Survey of Consumer Finances for 2013. For both sets of data, the bottom groups are heavily indebted: debt-toasset ratios are around 100%. Financial assets are skewed toward deposits, and stocks, bonds and mutual funds are less important. The difference is much less marked in the United States, however, where these assets are more widely held than in Europe.

Regarding non-financial assets, in both Europe and the United States the principal residence is more important for the bottom group than for the whole population. In other respects, however, there are marked differences between Europe and the United States. For example, the bottom quintile in

Europe held 15.6% of non-financial assets in "other real estate"; such holdings were too small to be estimated reliably in the United States. This difference may reflect, in part, the fact that urban dwellers in Europe often retain small landholdings in rural areas, whereas that is unusual in the United States. The large "other" non-financial holdings of the bottom quartile in the United States comprise mainly vehicles.

The debt situation of the bottom groups is of special interest. Mortgages make up around 80% of all household debt in both Europe and the United States. They are less important for the bottom groups, but in Europe, mortgages account for 64.4% of total debt for the bottom quintile, compared to just 42.5% of total debt for the bottom quartile in the United States. This reflects greater reliance on lines of credit, credit cards, and installment loans in the United States. Credit card debt is shown separately in Figure 5, and is a significant part of debt for the bottom group in the United States, at 3.4% of total debt for all households together and 11.4% for the bottom quartile. This is not the case in Europe, where it is just 0.2% of debt for all households and 0.3% for the bottom quintile. Student loans (referred to as education loans in the survey) are reported separately in the United States, where they form 27.8% of the debt of the bottom quintile. This reflects a significant and widespread change in the composition of household debt in the United States. Before 2010, student loans made up about 30% of installment debt for households in general, and around 45% for those in the bottom quartile. Those numbers rose to 45% and 65% respectively in the 2010 survey, and had risen again to 49% and 66% by 2013.

#### Conclusion

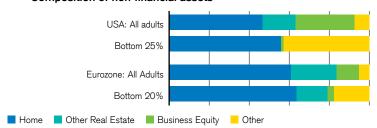
In population terms, the lower tail of the global wealth distribution is most concentrated in India and Africa, with sizeable representation also in the less prosperous countries of the Asia-Pacific region. These three areas host 70% of the world's least wealthy half, and 73% of the bottom wealth quintile. Our calculations suggest that 80% of adults in Africa and India belong to the bottom half of the global wealth distribution. The incidence of wealth poverty is moderate in China and Latin America. with just 35% and 40% of adults respectively in the bottom 50%. With its very large population, China has 15% of the global number in this category, but since the turn of the century, its share of the global bottom quintile has fallen significantly, and is now only 7%. The places vacated by China in the global bottom guintile have been occupied by countries and regions with rapid growth of population relative to wealth, predominantly India and Africa. There are significant numbers of people who are wealth poor by global standards in North America and Europe, with 9% of North Americans, most with negative net worth, in the global bottom quintile and 34% of Europeans in the global bottom half.

Within countries, the major "risk factors" for households being wealth poor are having a head who is young, single or poorly educated. The likelihood of a household being in the bottom wealth quintile tends to fall steadily with the age and education of the head, and is also lower for those in employment or retirement, and those who are married. While the unemployed are over-represented among the wealth poor, the majority of those in the bottom wealth quintile are either employed or retired. Being well educated reduces the chances of being wealth poor, but it does not offer complete protection. In particular, it is not uncommon to find well-educated young people in the bottom wealth quintile. Although this is largely a consequence of young people being at the beginning of their life-cycle of wealth accumulation, it also reflects poorer job prospects in recent years and mounting student debt in some countries.

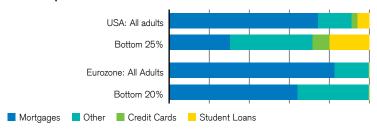
Figure 5 Household portfolio composition, Eurozone and United States Composition of financial assets



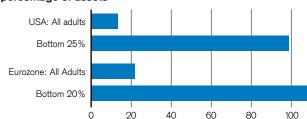
#### Composition of non-financial assets



#### Composition of debts



#### Debts as percentage of assets





## Wealth outlook

Wealth growth has undershot its earlier trend over the last few years. We expect some moderate acceleration, and estimate that total global wealth will reach USD 334 trillion by 2021. The number of millionaires will grow to a new all-time high of 45.1 million, on our estimates, while the number of ultra-high net worth individuals (UHNWIs) will reach 208,000.

Global wealth is likely to increase by around 31% over the next five years, which represents an annual rate of 5.5%, roughly in line with nominal GDP. This is well below our previous estimate of 6.6%, but more consistent with the trend recorded in recent years. Since 2000, global wealth has grown at an annual rate of 5.2% in nominal terms. However, there were two distinct sub-periods. Prior to the global financial crisis, global wealth grew at 9.5% p.a., before recording a very sharp decline of 12.6% in 2008. Since 2009 - the first year of positive growth following the financial crisis - wealth has grown at a mere 3.8% p.a. This reflects the low rate of growth in the global economy in USD terms, with the IMF estimating that between 2009 and 2016, nominal growth in USD will average more than 3%.

The ratio of wealth-to-GDP has also fallen in the years following the global financial crisis. While it averaged 3.7 prior to 2008, it has fallen to 3.3 since then (Figure 1). Over the forecast horizon, we expect the wealth-to-GDP ratio to remain around its longterm average of about 3.5.

#### Emerging economies to outperform

Developing economies are likely to outpace the developed world in terms of wealth growth, but we estimate they will still only account for just under a third of growth over the next five years. To put this in perspective, they currently account for around 18% of global household wealth, against just 12% in 2000. China is expected to account for more than half of this growth, with more than 7% coming from India. China's wealth growth has been negative over the last 12 months as a result of currency depreciation, but while it has fallen behind Japan in the total wealth ranking, it will likely remain on a strong upward trajectory in the next five years. While there are downside risks, the IMF expects China's GDP in USD to grow at more than 9% annually. Against this backdrop, we expect wealth growth to reach 9%. Crucially for developing economies wealth tends to increase as a multiple of GDP, as a country's level of economic development rises (Figure 2).

Figure 1 Global household net wealth to global GDP 4.10 Wealth-to-GDP ratio 3.90 3.70 3.50 3.30 3.10 2.90 2.70 2.50 2000 2003 2009 2012 2015 2018 2021 Global net wealth-to-GDP — Forecast - Pre-crisis average Post-crisis average Source: IMF, James Davies, Rodrigo Lluberas and Anthony Shorrocks

Figure 2 Wealth-to-GDP ratio relative to GDP per capita

Credit Suisse Global Wealth Databook 2016

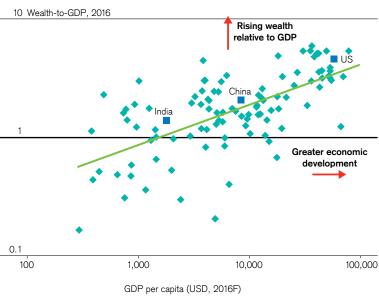


Figure 3 Leapfrogging 120 100 80 60 India 20 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 1920 1900 Total wealth in the US (in trillion USD, constant prices) Forecast Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

The United States is likely to remain the engine of global wealth growth in the coming years, with total wealth reaching USD 112 trillion by 2021. This is USD 28 trillion more than in 2016, equivalent to more than a third of the gain worldwide. We expect relatively few changes in ranking among the wealthiest developed economies. Emerging economies are likely to show significantly more dynamism (Figure 3). In the ranking by total wealth, India will probably jump from 14th place to 12th position, overtaking Switzerland and Taiwan, while Mexico is projected to overtake Sweden to become the world's 19th wealthiest country.

Wealth per adult is projected to rise by 21% in the next five years. Among major economies, Switzerland should retain first place in terms of wealth per adult, followed by Australia and the United States. Switzerland should also maintain the top position in terms of median wealth, followed by Australia and Belgium.

### The components of wealth

Financial wealth has grown twice as fast as non-financial wealth since 2009, but has actually underperformed since 2000. Our forecasts suggest that financial wealth will slightly outpace non-financial wealth, by around 0.5% annually. This benefits economies with a higher share of financial wealth, such as the United States among developed economies, and China among emerging markets. As a result, we expect India to slightly underperform against China: while India will likely record a higher GDP growth rate, the mix towards non-financial assets places it at a disadvantage.

#### Indebtedness

One of the reasons why wealth growth has been disappointing lately is the reduced ability - or perhaps willingness - of households to take on debt, which has suppressed demand for assets. Debt acts as a catalyst, enabling households to acquire assets (such as housing) worth well more than they would have otherwise been able to afford. As households take on more debt to buy assets, they bid up asset prices, which has a positive impact on their net wealth (equity) and their ability to take on even more debt. For example, during the period 2000-2007, global house prices had a strong positive relationship with debts. This relationship remains positive, but has weakened in recent years, while household debts and house prices have increased less (Figure 4).

This link between debts and asset prices introduces uncertainty into our forecasts. Monetary policy around the world currently remains very accommodating, which in normal times should encourage households to take on more debt. However, household debt and the debt-to-GDP ratio have been declining in recent years. Our forecasts assume that debt will grow at a slower pace than wealth in the coming years, but we recognize the possibility that credit and wealth growth might accelerate, on the back of accommodating monetary policy.



#### Wealth distribution in 2021

The lowest stratum of wealth (those with wealth below USD 10,000) is expected to absorb around 80 million adults over the next five years. This is large in absolute terms, but only a small fraction of those at the base of the wealth pyramid. In relative terms, this segment will increase slowly, by just 2% according to our projections.

The global middle class - those with net worth between USD 10,000 and USD 100,000 - is expected to expand by about 200 million adults (half of whom will be from China), pushing total membership above 1.1 billion adults by 2021 (Figure 5). This represents growth of about 23%. The aggregate wealth of the middle class is projected to grow by around 22%, meaning that wealth per adult might shrink slightly. The number of adults in the upper middle segment - comprising those with wealth between USD 100,000 and USD 1 million - should grow by 67 million adults (with similar contributions from emerging and developed economies), and wealth per adult in this segment could rise by more than 4% in our estimation.

### Trends in millionaire and UHNW segments

Globally, there are an estimated 32.9 million millionaires in 2016. We forecast that this will grow to 45.1 million in 2021, a growth rate of 37% (Table 1). North America should remain the region with the most millionaires, and their number is expected to grow from 14.7 to 19.7 million. China will likely record the world's second highest

Figure 4 Change in household debt and house prices across countries (in USD, annual rate)

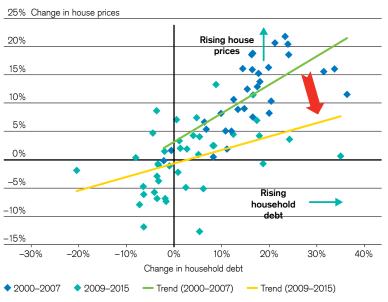


Figure 5 Increase in the number of adults by wealth segment (million adults)

Number of adults (millions)

Millionaires

Upper middle segment

Middle segment

Lower segment

-50 0 50 100 150 200 250

High income economies

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016

Lower income economies

Table 1 Number of millionaires in 2016 and 2021 (regions and selected countries)

|                | Number (thous | and)   | Change |
|----------------|---------------|--------|--------|
|                | 2016          | 2021   | (%)    |
| United States  | 13,554        | 18,067 | 33     |
| Japan          | 2,826         | 3,602  | 27     |
| United Kingdom | 2,225         | 3,124  | 40     |
| Germany        | 1,637         | 2,131  | 30     |
| France         | 1,617         | 2,114  | 31     |
| China          | 1,590         | 2,749  | 73     |
| Italy          | 1,132         | 1,426  | 26     |
| Canada         | 1,117         | 1,680  | 50     |
| Australia      | 1,060         | 1,633  | 54     |
| Switzerland    | 716           | 816    | 14     |
| Korea          | 679           | 955    | 41     |
| Spain          | 386           | 544    | 41     |
| Taiwan         | 356           | 489    | 37     |
| Belgium        | 307           | 447    | 45     |
| Netherlands    | 287           | 378    | 32     |
| Sweden         | 285           | 376    | 32     |
| Denmark        | 240           | 335    | 39     |
| Austria        | 217           | 291    | 34     |
| Norway         | 195           | 254    | 30     |
| India          | 178           | 280    | 57     |
| Africa         | 136           | 196    | 44     |
| Asia-Pacific   | 6,043         | 8,372  | 39     |
| China          | 1,590         | 2,749  | 73     |
| Europe         | 9,804         | 13,007 | 33     |
| India          | 178           | 280    | 57     |
| Latin America  | 502           | 708    | 41     |
| North America  | 14,678        | 19,747 | 35     |
| World          | 32,931        | 45,060 | 37     |

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2016 absolute growth in millionaire numbers, pushing the number of Chinese millionaires above Germany and France, so that by 2021, China will rank behind only the United States, Japan and the United Kingdom. Among developed economies, the number of millionaires in the United Kingdom, Japan, Canada, and Australia should each rise by more than 500,000.

By 2021, the number of UHNW individuals is expected to exceed 200,000, more than half of whom will reside in North America. Countries in the Asia-Pacific region, including China and India, currently host more than 32,000 UHNW individuals (against nearly 30,000 living in Europe). This difference in favour of APAC will increase further, and by 2021 the region is expected to add another 17,000 UHNW individuals to reach a total of nearly 49,000, 39% of whom will be from China (against 34% today). Of the nearly 10,000 new UHNW members in Europe, Germany and the United Kingdom will each acquire around 1,800 individuals, but Germany will remain in third place globally in terms of the number of members in the UHNW segment. Canada will likely overtake Italy to take seventh place in the ranking of UHNW individuals, while India will move past South Korea into ninth

Assuming no change in global wealth inequality, another 945 billionaires are expected to appear in the next five years, raising the total number of billionaires to nearly 3,000. More than 300 of the new billionaires will be from North America. China is projected to add more billionaires than all of Europe combined, pushing the total from China above 420.

#### Methodology

We project total wealth at the country level by forecasting the two components of wealth - financial and non-financial separately, but by using the same inputs (GDP and inflation) from the IMF's latest World Economic Outlook database. We project aggregate financial wealth using a combination of GDP and equity market capitalization growth. We forecast five-year market value using a dividend discount model at the country level. To compute the discount rate, we assume normalization in market conditions (risk appetite and volatility). We estimate dividends by using analyst consensus expectations and trend GDP growth. Then we estimate the five-year forward price target, and finally compute the corresponding change in market value (this typically grows at a higher rate than the price index). We have estimates for 42 countries in local currency, and they are converted to US dollars using IMF exchange rate projections. Our model of a regression of non-financial wealth is based on GDP and inflation, and we have produced a forecast based on IMF projections of these variables. Again, forecasts are in local currency, and are converted into US dollars using IMF FX projections. For countries where we do not have projections, we use GDP per capita growth to forecast net worth, and assume that the percentage in financial/nonfinancial/debts is the same as for 2016.





## Wealth of nations

Both the levels and the distribution of household wealth differ widely across countries. This section of our report provides a sample of the variety of country circumstances, and the range of experiences.

The quality of wealth data is good in the high income countries that are home to most of the world's wealth, but is patchy elsewhere. Our assessment of the reliability of the source material is reported for each country discussed below. For all of the countries featured, data quality is rated as no worse than "fair," meaning that there is at least some credible source of data on wealth, such as a recent household survey. In most of the selected countries, the quality is "good" indicating that there is an official household sector balance sheet as well as a household wealth survey. A "satisfactory" rating is an intermediate assessment given, for example, when the data are good but somewhat out of date.

The charts in this section highlight some of the most important facts, and are generally based on wealth per adult in US dollars at the prevailing exchange rate. The first chart shows changes in average wealth for the period 2000-2016. Since exchange rate changes can alter the apparent trend, an alternative series is provided for each country using its average USD exchange rate since 2010. A typical pattern is a mild decline in average wealth between 2000 and 2002, an increase until 2006 or 2007, and a drop in 2008 with a subsequent recovery. By mid-2016, wealth was typically higher than in 2000, and in most cases higher than in 2007. Many currencies rose against the US dollar between 2000-2016, so wealth growth over this period often appears slower when measured using average exchange rates.

From mid-2015 to mid-2016, the value of a number of currencies, such as the euro, remained relatively unchanged in terms of US dollars. The yen appreciated against the USD, rising 19%, but several other important currencies went in the opposite direction. For example, the USD rose 7% against the renminbi, 6% against the Indian rupee, 13% against the Russian ruble, and 15% against the GBP. As a result, the charts hereafter show wealth in 2016 steady or increasing in Europe, Japan, and some other areas when measured in US dollars. However, wealth per adult fell in USD terms in China, India, Russia, and the UK, largely due to exchange rate changes.

Our second chart shows the current split between financial and real (non-financial) assets, as well as the average level of debt. Globally on average, financial assets comprise 55% of total gross assets, and debt accounts for 14%. There are several countries for which financial assets are significantly more important, including Japan and the United States. In contrast, real assets dominate in India and Indonesia, and in Australia and France among the wealthier countries.

The last chart shows the distribution of wealth. There are some notable comparisons. For example, 96% of adults in India have net worth less than USD 10,000, whereas this percentage is only 68% in China. Moreover, the percentage of those with very little wealth is surprisingly high in some developed countries, while in others it is very low. This reflects aspects such as the availability of credit, including student loans, and whether young adults are counted separately from their parents, making their wealth more evident in household surveys.

## **United States**

### **Record spell continues**

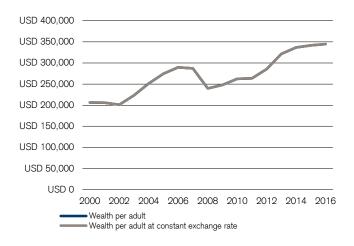
The US economy and its financial markets continued to perform well in 2015 - 2016, leading to an eighth successive year of rising wealth. Average wealth was USD 206,000 in 2000, and rose fairly steadily until 2006, before falling during the global financial crisis. Wealth per adult has now fully recovered, and is 19% above the 2006 level. There is some uncertainty about future interest rates and stock market prospects, but otherwise the signs are mostly positive for household wealth.

The USA has a high proportion of assets (72%) reported as financial, partly because it includes business equity wholly as a financial asset. Adopting the more usual procedure of treating unincorporated enterprises as part of the household sector, the share would be around 64%, which is still relatively high. This reflects the fact that, compared with many other OECD countries, the USA has more economic activity in the private relative to the public sector. The USA also has more outward foreign investment. Debts of USD 56,800 per adult are not extreme by international standards.

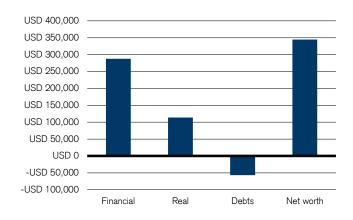
US wealth distribution has a high fraction of adults with wealth above USD 100,000 compared to the world as a whole. The percentage of people with wealth at higher levels is even more striking. The USA has the most members of the top 1% global wealth group, and currently accounts for 41% of the world's millionaires. The number of UHNW individuals with wealth above USD 50 million is six times that of the next country, China.

Country summary 2016 334 Population million 246 million Adult population 75.992 **GDP** USD per adult 344,692 USD per adult Mean wealth Median wealth 44,977 USD per adult 85.0 Total wealth trillion USD 13,554 US dollar millionaires thousand 105,958 Top 10% of global wealth holders thousand 18,325 Top 1% of global wealth holders thousand 44444 Quality of wealth data good

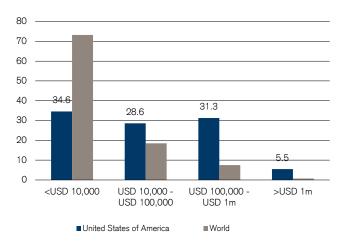
Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



# Japan

### Still in the doldrums

Japanese wealth grew 19% to mid-2016, but only because of exchange rate appreciation. In yen terms, total wealth did not change, and wealth per adult rose only 0.1%. This represents a slowdown relative to the progress seen in the preceding five years.

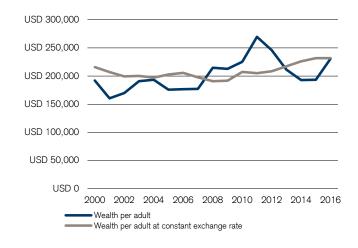
The yen appreciation did allow Japan to regain second place to the United States in the global rankings of aggregate wealth, which it had vacated to China in 2015. Longer-term trends remain unimpressive, however. Japan's wealth per adult was USD 191,900 in 2000. Today, average wealth is 20% higher in USD terms, and only 7% higher when measured in yen. The slow underlying growth is due to the combined effects of the unsteady performance of the stock market and real estate, low interest rates, and a lower saving rate than in earlier years.

Neither financial asset prices nor house prices have risen steadily in Japan. As a consequence, the relative importance of financial assets in household portfolios has changed little, and remains at the fairly high level of 60% of gross assets. Debts have been declining, and are modest by international standards, at 14% of total assets.

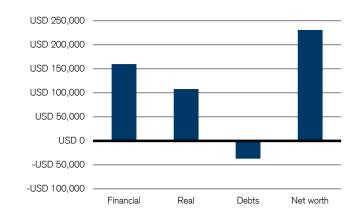
Japan has a more equal wealth distribution than any other major country, as reflected in a Gini coefficient of 63%. Together with its high average wealth, this relative equality means that few adults have assets below USD 10,000. The proportion of the population with wealth above USD 100,000 is seven times the global average. At the turn of the century, Japan was a close second to the USA regarding the number of residents in the top 10% and top 1% of global wealth holders. Japan still retains second place, but the gap has widened considerably.

| Country summary 2016 |  |  |
|----------------------|--|--|
| million              |  |  |
| million              |  |  |
| USD per adult        |  |  |
| USD per adult        |  |  |
| USD per adult        |  |  |
| trillion USD         |  |  |
| thousand             |  |  |
| thousand             |  |  |
| thousand             |  |  |
| good                 |  |  |
|                      |  |  |

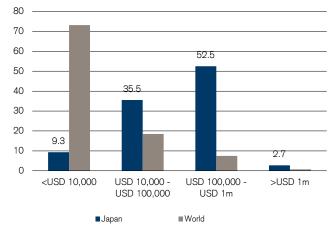
Figure 1 Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



## China

### **Uncertain outlook**

Wealth per adult has grown strongly in China, rising from USD 5,670 to USD 22,864 between 2000 - 2016. The global financial crisis caused a major setback, and wealth fell by almost 20%. It soon recovered to its pre-crisis level, however, and although it grew more slowly than before the crisis, wealth per adult is now 37% above its 2007 level. While housing construction and SOE investment continued strong in the first half of 2016, current forecasts generally predict a slowdown in GDP growth over the medium term. If these predictions prove accurate, it is also expected that household wealth will grow more slowly.

In terms of total household wealth, China currently lies in third place, behind the United States and Japan. Property performed better over the last year than the stock market, so the proportion of household assets in non-financial form rose from 50% in 2015 to 53% in 2016. Privatized housing, new construction, and rural land are all important forms of wealth in China, accounting for much of the USD 13,100 in real assets per adult. Debt averages USD 2,100, equivalent to 8% of gross assets. While this is relatively low, personal debt has been rising in recent years.

Although significant inequality is created by the strong urban/rural divide in China, overall wealth inequality was low at the turn of the century. This was in part due to the absence of inherited fortunes, and the relatively equal division of rural land and privatized housing. Inequality has been rising quickly, however, since 2000. China now has 1.6 million millionaires, and more residents with wealth above USD 50 million than any country except the United States.

| Country summary 2016             |              |               |
|----------------------------------|--------------|---------------|
| Population                       | 1,377        | million       |
| Adult population                 | 1,023        | million       |
| GDP                              | 10,795       | USD per adult |
| Mean wealth                      | 22,864       | USD per adult |
| Median wealth                    | 4,885        | USD per adult |
| Total wealth                     | 23.0         | trillion USD  |
| US dollar millionaires           | 1,590        | thousand      |
| Top 10% of global wealth holders | 44,651       | thousand      |
| Top 1% of global wealth holders  | 2,314        | thousand      |
| Quality of wealth data           | <b>ል</b> ል ል | fair          |
|                                  |              |               |

Figure 1 Wealth per adult over time

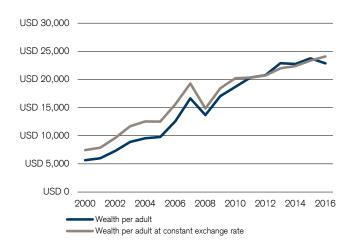
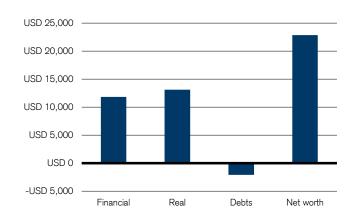
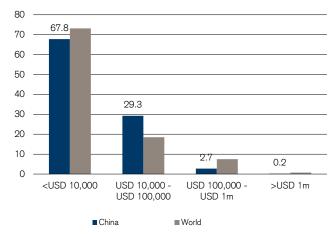


Figure 2 Composition of wealth per adult



Wealth distribution relative to world (in %)



## India

### Holding pattern

In terms of its own currency, India's wealth has grown quite quickly since the turn of the century, except during the global financial crisis. Annual growth of wealth per adult in rupees has averaged 6% over 2000 - 2016. Prior to 2008, wealth also rose strongly in USD terms, from USD 2,040 in 2000 to USD 5,100 in 2007. After falling 26% in 2008, it rebounded, reaching USD 5,100 in 2010, but since then has fallen 25% due to currency depreciation. Wealth per adult has not regained its previous peak, and was just USD 3,840 in mid-2016.

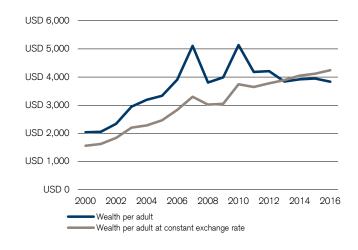
Personal wealth in India is dominated by property and other real assets, which make up 86% of estimated household assets. This is typical for developing countries. Personal debts are estimated to be only USD 376, or just 9% of gross assets, even when adjustments are made for underreporting. Thus, although indebtedness is a severe problem for many poor people in India, overall household debt as a proportion of assets in India is lower than in most developed countries.

While wealth has been rising in India, not everyone has shared in this growth. There is still considerable wealth poverty, reflected in the fact that 96% of the adult population has wealth below USD 10,000.

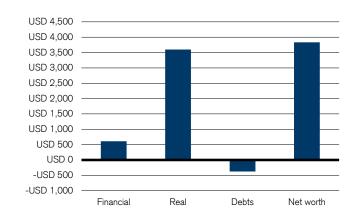
At the other extreme, a small fraction of the population (just 0.3% of adults) has a net worth over USD 100,000. However, due to India's large population, this translates into 2.4 million people. The country has 248,000 adults in the top 1% of global wealth holders, which is a 0.5% share. By our estimates, 2,260 adults have wealth over USD 50 million, and 1,040 have more than USD 100 million.

Country summary 2016 Population 1,302 million 808 million Adult population 3,137 GDP USD per adult 3.835 USD per adult Mean wealth 608 USD per adult Median wealth 3.0 trillion USD Total wealth 178 US dollar millionaires thousand 3.393 Top 10% of global wealth holders thousand 248 Top 1% of global wealth holders thousand Quality of wealth data 444 fair

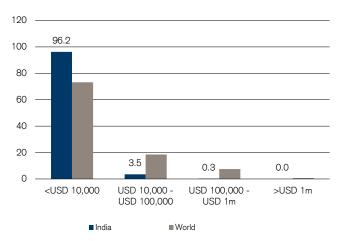
Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



## **France**

### **Eurozone blues**

In recent years, France has faced low growth, high unemployment, and rising debt. Reflecting these challenges, it has fallen to 16<sup>th</sup> place in the world according to wealth per adult, and to sixth place in terms of aggregate household wealth, now behind Germany as well as the United Kingdom.

Wealth per adult in USD grew quickly in France from 2000 to 2007, then decreased by 9% in 2008. The pre-crisis wealth peak has still not been matched in USD terms. Much of the earlier rise was due to the appreciation of the euro against the US dollar, reinforced by a rapid rise in house prices. The fall in the euro-dollar exchange rate since 2013 has sent average wealth in USD back to levels not seen for a decade.

Real estate is a large component of household wealth in France, with the result that non-financial assets make up 61% of gross assets. Personal debts equal just 12% of assets.

Europe overall accounts for 31% of the adults in the global top 1% by wealth, with almost a fifth of the European contribution coming from France. This reflects the high total net worth of French households.

Wealth inequality has been rising in France in recent years. Over a quarter of adults in France are now estimated to have wealth less than USD 10,000. At the top end, the proportion with assets over USD 100,000 is six times the global figure. Furthermore, despite its difficulties, France is almost tied with Germany for the most number of millionaires on the European continent.

Country summary 2016 Population 64 million Adult population 49 million GDP 61,991 USD per adult 244,365 Mean wealth USD per adult 99.923 USD per adult Median wealth 12.0 trillion USD Total wealth 1.617 US dollar millionaires thousand 26,704 Top 10% of global wealth holders thousand 2,540 Top 1% of global wealth holders thousand Quality of wealth data \*\*\* good

Figure 1
Wealth per adult over time

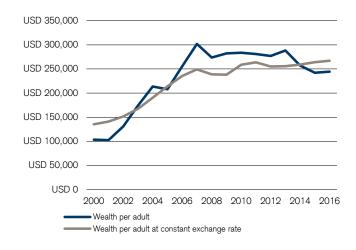


Figure 2
Composition of wealth per adult

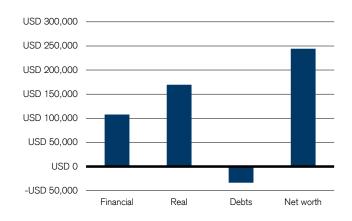
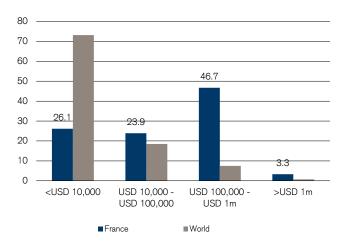


Figure 3
Wealth distribution relative to world (in %)



# United Kingdom

### **Brexit looms**

The United Kingdom had a tumultuous end to 2015 - 2016, with sharp declines in the exchange rate and the stock market following the vote to leave the EU in the June 23 referendum. Nevertheless, as of the end of June, wealth per adult in pounds sterling was 6% above its level a year earlier. The stock market recovered later, but the outlook is very uncertain, both for the economy and household wealth.

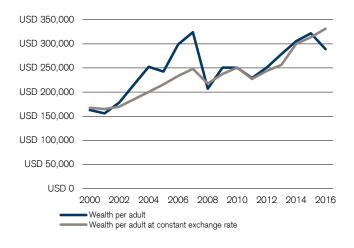
In the early years of the century, UK wealth grew rapidly, fuelled by a robust housing market and good equity returns. The boom ended with the global financial crisis in 2008. By 2007, the wealth/income ratio had risen above 9, the highest level recorded for any country apart from Japan at the peak of its asset price bubble in the late 1980s. The subsequent fall in both real property and financial assets led to a 12% drop in average wealth measured in pounds sterling; but the simultaneous GBP depreciation caused wealth per adult in USD to plummet by 36%. Average wealth in pounds sterling fluctuated around the pre-crisis peak up to 2012, but since then has risen to a level 33% above the 2007 benchmark. In USD terms, however, wealth per adult is 11% below the 2007

Financial and non-financial assets are roughly equal in importance in the United Kingdom. Along with many other countries, household debt grew quickly as a multiple of income from 1980 onwards, tripling in value to reach 180% in 2008. The debt-to-income ratio subsided to 150% by 2013, but has subsequently risen back to around 170%. At 15% of gross wealth, debt is not exceptionally high by international standards.

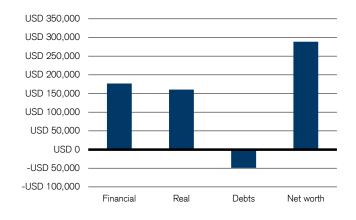
The pattern of wealth distribution in the United Kingdom is fairly typical for a developed economy. A little more than half of the adult population has wealth exceeding USD 100,000, and there are 2.2 million US dollar millionaires, representing 6.8% of all millionaires in the world.

| Population                       | 64      | million       |
|----------------------------------|---------|---------------|
| Adult population                 | 49      | million       |
| GDP                              | 58,878  | USD per adult |
| Mean wealth                      | 288,808 | USD per adult |
| Median wealth                    | 107,865 | USD per adult |
| Total wealth                     | 14.0    | trillion USD  |
| US dollar millionaires           | 2,225   | thousand      |
| Top 10% of global wealth holders | 27,826  | thousand      |
| Top 1% of global wealth holders  | 3,542   | thousand      |
| Quality of wealth data           | ***     | good          |

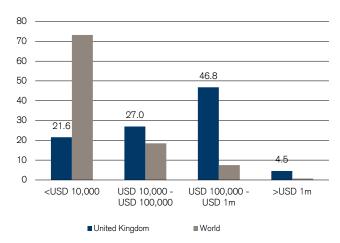
Figure 1 Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



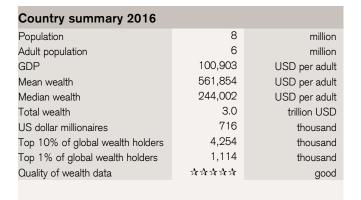
## **Switzerland**

### View from the top

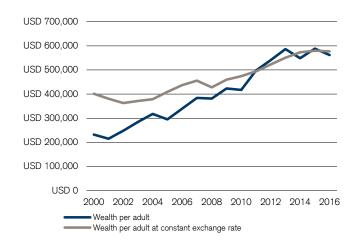
Since the turn of the century, wealth per adult in Switzerland has risen by 142% to USD 561,900, putting the country at the top of the global rankings by a large margin. However, most of the rise was due to appreciation of the Swiss franc against the US dollar from 2001 to 2013. Measured in Swiss francs, household wealth rose 44% from 2000 to 2016 - an average annual rate of 2.3%.

Financial assets make up 55% of gross wealth in Switzerland - somewhat higher than their share in the United Kingdom, but less than in Japan or the United States. Debts average USD 143,400 per adult, one of the highest absolute levels in the world, and represent 20% of total assets. The debt ratio has changed little in recent years, and appears to reflect the country's high level of financial development, rather than excessive borrowing.

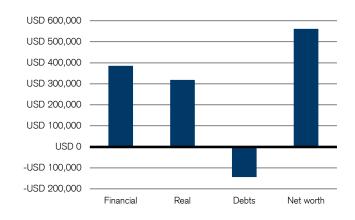
Among the ten countries with long series of wealth distribution, Switzerland has seen little reduction in wealth inequality over the past century. A combination of high average wealth, and relatively high wealth inequality, results in a large proportion of the Swiss population being in the upper echelons of the global distribution. Switzerland accounts for 2.3% of the top 1% of global wealth-holders, which is remarkable for a country with just 0.1% of the world's population. Almost twothirds of Swiss adults have assets above USD 100,000, and 12% are USD millionaires. An estimated 2,000 individuals are in the UHNW bracket, with wealth over USD 50 million, and 710 have net worth exceeding USD 100 million.



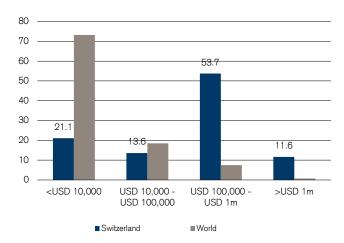
Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



## Russia

### Sanctions pain

Household wealth in Russia grew rapidly in the initial years of this century, as the country boomed along with global commodity markets. Between 2000 and 2007, wealth per adult rose eightfold. Since 2007, however, growth has been slow and uneven - up 14% to date in ruble terms, but down 56% when measured in current USD, due to ruble depreciation. The USD-RUB rate rose from 25 in 2007 to 34 in mid-2014, and then shot up to 60 by the end of 2014 due to the imposition of financial sanctions. The rate was 64 in mid-2016. While household wealth per adult has risen from USD 2,940 in 2000 to USD 10,340 today, the current level is barely above that of ten years ago.

The quality of wealth data for Russia is mixed. Financial balance sheets are published for the household sector, and indicate that gross financial assets average USD 2,200 per adult. There is less information on non-financial assets, but what is available suggests that they currently amount to USD 10,200 per adult. However, recent visitors to Russia may well suspect that the true figures are higher. Personal debt grew rapidly in the period 2000 - 2007, and more slowly after that. We estimate that it now equals 16% of gross assets - up from 12% two years ago.

According to our estimates, the top decile of wealth-holders owns 89% of all household wealth in Russia. This is significantly higher than any other major economic power: the corresponding figure is 78% for the United States, for example, and 73% for China. The high concentration of wealth in Russia is reflected in the fact that it has an estimated 96 billionaires - a total exceeded only by China with 244, and the USA with 582.

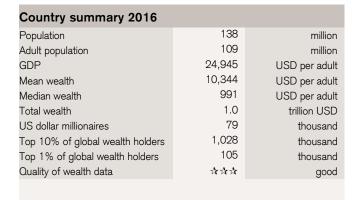


Figure 1 Wealth per adult over time

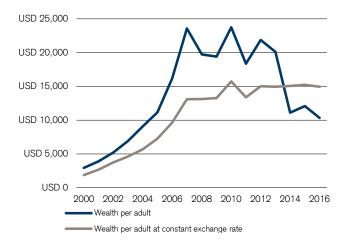


Figure 2 Composition of wealth per adult

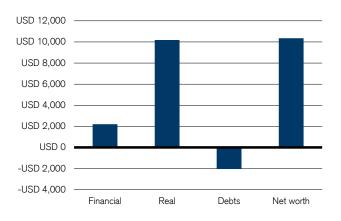
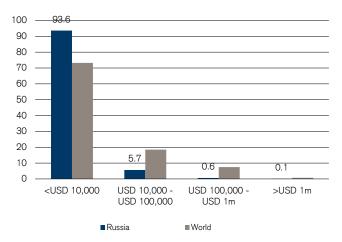


Figure 3 Wealth distribution relative to world (in %)



# **Singapore**

### Slowdown

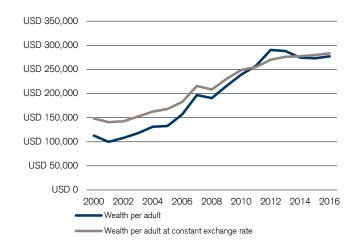
Personal wealth per adult grew strongly in Singapore up to 2012. Since then, however, it has risen only slowly in domestic currency units, and declined a little in terms of USD. Despite this drop, average wealth remains at a high level - USD 276,900 per adult in mid-2016, compared to USD 112,800 in 2000. The rise was mostly caused by high savings, asset price increases, and a favorable rising exchange rate from 2005 to 2012. Singapore is now tenth in the world in terms of household wealth per adult, giving it the highest rank in Asia. Significantly, it is now well ahead of Hong Kong, which was ranked tenth in the world in 2000, just above Singapore. Wealth per adult in Hong Kong grew at an average annual rate of only 3.0% between 2000 and 2016, versus 5.8% for Singapore. This conformed with higher GDP per capita growth in Singapore over the same period.

Financial assets make up 54% of gross household wealth in Singapore, a ratio similar to that of Switzerland and the United Kingdom. The average debt of USD 54,800 is moderate for a high-wealth country, equaling just 17% of total assets. Singapore publishes household sector balance sheet data, which means that wealth information is more reliable than for most of its neighbors in Southeast Asia.

Wealth distribution in Singapore is only moderately unequal. Just 18% of its people have wealth below USD 10,000, compared with 73% globally. The number with wealth above USD 100,000 is six times the world average. Reflecting its very high average wealth, 5% of its adults, or 222,000 individuals, are in the top 1% of global wealth-holders, a very high number given that it has just 0.1% of the world's adult population.

| Country summary 2016             |         |               |
|----------------------------------|---------|---------------|
| Population                       | 5       | million       |
| Adult population                 | 4       | million       |
| GDP                              | 67,884  | USD per adult |
| Mean wealth                      | 276,885 | USD per adult |
| Median wealth                    | 101,386 | USD per adult |
| Total wealth                     | 1.0     | trillion USD  |
| US dollar millionaires           | 150     | thousand      |
| Top 10% of global wealth holders | 2,393   | thousand      |
| Top 1% of global wealth holders  | 222     | thousand      |
| Quality of wealth data           | ልልልልል   | good          |
|                                  |         |               |

Figure 1 Wealth per adult over time



Composition of wealth per adult

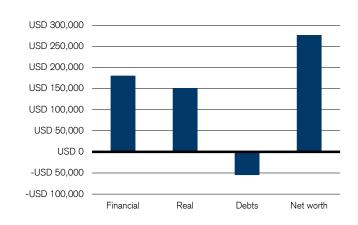
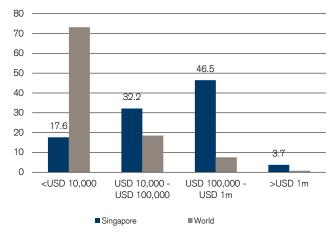


Figure 3 Wealth distribution relative to world (in %)



## **Taiwan**

### **Asian tiger**

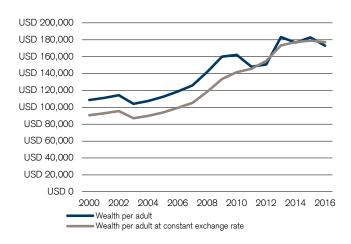
Taiwan's average level of wealth, at USD 172,800, is well above that of most countries in the Asia-Pacific region, and similar to that of Western Europe. From USD 108,600 at the turn of the century, wealth per adult grew to USD 162,200 in 2010, with no drop during the global financial crisis, although currency depreciation has caused dips in several years after 2010. Over the entire 2000 - 2016 period, wealth per adult grew by 59% in USD terms, and by 95% using constant exchange rates.

Taiwan has a high saving rate and well-developed financial institutions, so it is not surprising that the composition of household wealth is skewed towards financial assets. The latter now make up 64% of total assets. Debt is relatively modest, equaling 13% of gross assets.

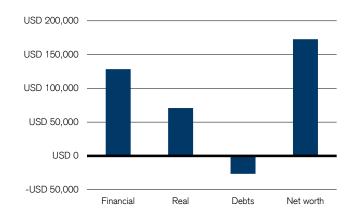
Compared to the world as a whole, Taiwan has high average wealth and only moderate wealth inequality. While 20% of the adult population have wealth below USD 10,000, that is not high compared to 73% worldwide. 38% percent of adults in Taiwan have wealth over USD 100,000 which is almost five times greater than the worldwide average of 8%. The large number of Taiwanese with high wealth reflects high mean wealth, rather than high wealth inequality: looking across countries, Taiwan's wealth Gini coefficient of 74% lies in the moderate range, and is one of the lowest among emergingmarket economies.

Country summary 2016 Population 23 million 19 Adult population million GDP 32,647 USD per adult 172,847 Mean wealth USD per adult 63,134 USD per adult Median wealth 3.0 Total wealth trillion USD 356 US dollar millionaires thousand 8,727 Top 10% of global wealth holders thousand 528 Top 1% of global wealth holders thousand Quality of wealth data **☆☆☆☆** satisfactory

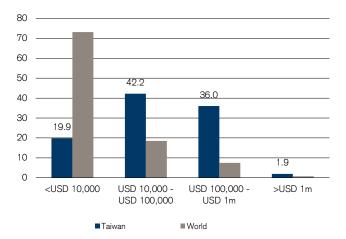
Figure 1 Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



## Indonesia

## **Growth with** depreciation

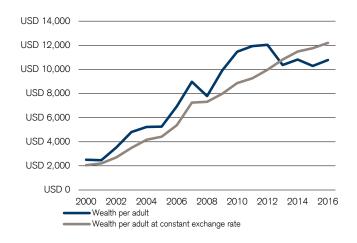
Indonesia recovered well from the 1997 - 1998 Asian financial crisis, and in rupiah, wealth per adult has risen six-fold over the 2000 - 2016 period as a whole. Seen in domestic currency terms, the global financial crisis had little effect on wealth, and net worth has risen fairly smoothly since 2008, at an average annual rate of 5.9%. However, exchange rate depreciation totaling 46% since 2011 has caused wealth per adult to decline in USD terms. Despite this setback, wealth per adult in USD has quadrupled since the year 2000.

A comparison of Indonesia and India is interesting. In 2000, wealth per adult in the two countries was fairly similar, with Indonesia just 23% ahead of India. However, the figure for Indonesia is now more than double that for India. This is in line with Indonesia's faster growth in GDP per adult, which rose at an average annual rate of 12.3% between 2000 and 2016 compared with 8.8% for India. The composition of wealth is similar, with real assets making up 86% of gross assets in India, and 88% in Indonesia, according to our estimates. Personal debts in the two countries are low, averaging just 9% of gross assets in India, and 6% in Indonesia.

In Indonesia, 84% of the adult population owns less than USD 10,000 - above the global figure of 73%. At higher wealth levels, there are fewer people than there are for the world as a whole. This reflects the fact that average wealth in Indonesia remains low by international standards. However, due to the considerable dispersion of wealth, 158,000 people in the country are in the top 1% of global wealth-holders, and we calculate that 112,000 are USD millionaires.

| Country summary 2016             |              |               |
|----------------------------------|--------------|---------------|
| Population                       | 245          | million       |
| Adult population                 | 164          | million       |
| GDP                              | 8,638        | USD per adult |
| Mean wealth                      | 10,772       | USD per adult |
| Median wealth                    | 1,966        | USD per adult |
| Total wealth                     | 2.0          | trillion USD  |
| US dollar millionaires           | 112          | thousand      |
| Top 10% of global wealth holders | 2,522        | thousand      |
| Top 1% of global wealth holders  | 158          | thousand      |
| Quality of wealth data           | <b>ል ል ል</b> | fair          |

Figure 1 Wealth per adult over time



Composition of wealth per adult

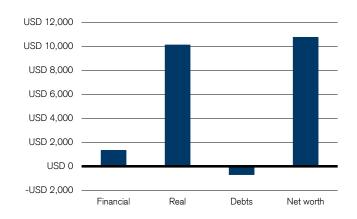
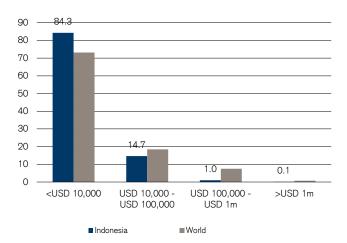


Figure 3 Wealth distribution relative to world (in %)



## **Australia**

### Still resilient

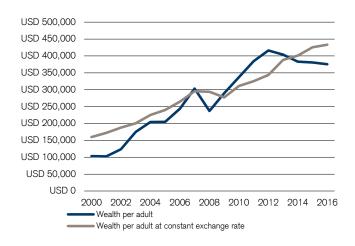
Household wealth in Australia grew at a fast pace between 2000 and 2012 in USD terms, except for a short interruption in 2008. The average annual growth rate of wealth per adult was 12%, with about half the rise due to exchange rate appreciation against the USD. The exchange rate effect went into reverse after 2012, and like other resource-rich countries, Australia was badly hit by sagging commodity prices, with the average annual growth rate since 2008 just 6%. Despite the slowdown, Australia's wealth per adult in 2016 is USD 375,600, the second highest in the world after Switzerland.

The composition of household wealth in Australia is heavily skewed towards non-financial assets, which average USD 286,900, and form 61% of gross assets. The high level of real assets partly reflects a large endowment of land and natural resources relative to population, but it is also a result of high urban house prices in the largest cities.

Wealth inequality is relatively low in Australia, as reflected in a Gini coefficient of just 68% for wealth. Only 11% of Australians have net worth below USD 10,000. This compares to 22% in the UK and 35% in the USA. Average debt amounts to 21% of gross assets. The proportion of those with wealth above USD 100,000, at 55.8%, is the fifth highest of any country, and almost seven times the world average. With 1,688,000 people in the top 1% of global wealth-holders, Australia accounts for 3.5% of this top slice, despite being home to just 0.4% of the world's adult population.

Country summary 2016 Population 23 million Adult population 17 million GDP 99,452 USD per adult 375,573 USD per adult Mean wealth 162,815 USD per adult Median wealth 6.0 trillion USD Total wealth US dollar millionaires 1.060 thousand 10,364 Top 10% of global wealth holders thousand 1,688 Top 1% of global wealth holders thousand Quality of wealth data \*\*\* Good

Figure 1 Wealth per adult over time



Composition of wealth per adult

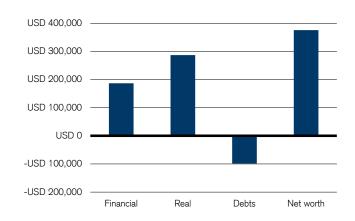
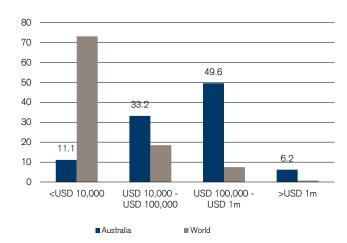


Figure 3 Wealth distribution relative to world (in %)



## South Africa

### Signs of growth

Household wealth in South Africa grew strongly prior to the global financial crisis, rising from USD 8,400 in 2000 to USD 25,800 in 2007. Growth was similar in constant exchange rate terms. Since 2007, progress has been slower. In domestic currency terms, wealth declined a little in 2008, but growth soon recovered and has averaged 9.4% per annum since 2010. Depreciation of the rand greatly amplified the wealth decline in 2008. This was reversed the following year, but more recent drops in the exchange rate have resulted in wealth per adult continuing to be well below its 2007 peak in USD terms.

South Africa has complete official household balance sheets, which is unusual among emerging market countries. This means that our estimates of the level and composition of household wealth are more reliable than other emerging markets. Personal wealth is largely comprised of financial assets, which contribute 65% to the household portfolio. This reflects a vigorous stock market, and strong life insurance and pension industries. Due in part to relatively low real estate prices, average real assets of USD 8,800 are only around twice the level of average debt (USD 4,300).

Along with Brazil and Indonesia, South Africa has a distribution of wealth that is roughly similar to the distribution for the world as a whole, although a smaller fraction of individuals have wealth above USD 100,000. Still, we estimate that 66,000 South Africans are members of the top 1% of global wealth-holders, and that 45,000 are USD millionaires.

Country summary 2016 Population 52 million 32 Adult population million GDP 15,158 USD per adult 20,589 USD per adult Mean wealth 3,549 USD per adult Median wealth 1.0 trillion USD Total wealth 45 US dollar millionaires thousand 1.290 Top 10% of global wealth holders thousand 66 Top 1% of global wealth holders thousand Quality of wealth data \*\* fair

Figure 1
Wealth per adult over time

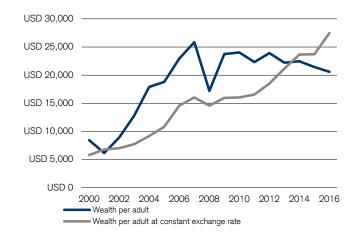


Figure 2
Composition of wealth per adult

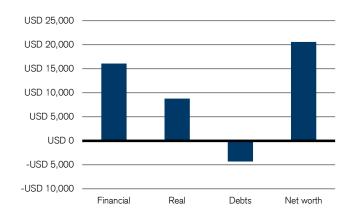
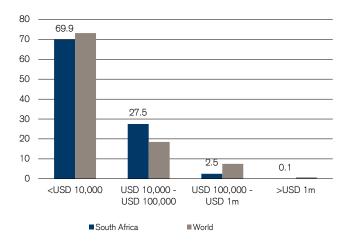


Figure 3
Wealth distribution relative to world (in %)



## Chile

### Sustained growth

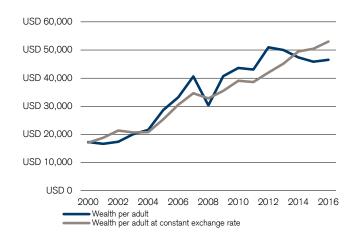
Chile has one of the strongest economies in Latin America. Compared with Argentina and Brazil for example, its GDP is growing faster, inflation is lower, and its stock market has performed better. The contrast in household wealth is striking. Chile's per-capita GDP is 37% above Argentina's and 22% greater than Brazil's, but its average wealth is more than double that of Brazil and three times greater than Argentina's. Since the turn of the century, wealth per capita has risen 211% based on constant exchange rates, and 169% in current exchange rate terms. At a constant exchange rate, wealth fell only slightly during the global financial crisis, and has grown steadily ever since.

Chilean household wealth is split almost exactly 50-50 between financial and non-financial assets. Holdings of financial assets have been encouraged by low inflation, well developed financial markets, and a strong pension system. The high urban home ownership rate of 69% exceeds the 65% found in the United States, and contributes to substantial holdings of real estate. At 15% of gross assets, household liabilities are moderate by international standards.

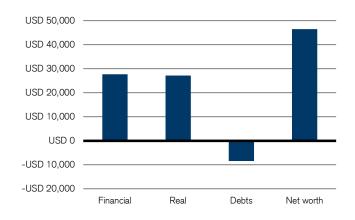
Chile's wealth per adult, at USD 46,500, is below the world average of USD 52,800, but high relative to most emerging market countries. Compared to the world as a whole, Chile has more people in the USD 10,000-100,000 range and fewer below USD 10,000 or above USD 1 million. Overall inequality is relatively high, as indicated by a Gini coefficient of 81%, and by the fact that Chile has 51,000 millionaires, and 73,000 adults in the top 1% of global wealth holders.

Country summary 2016 18 Population million 13 Adult population million 25,945 GDP USD per adult 46,543 USD per adult Mean wealth 11,590 USD per adult Median wealth 1.0 trillion USD Total wealth 51 US dollar millionaires thousand 1,205 Top 10% of global wealth holders thousand 73 Top 1% of global wealth holders thousand Quality of wealth data ☆ ☆ ☆

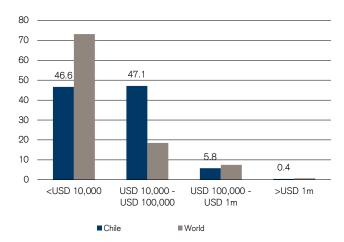
Figure 1 Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



## Canada

### Some concerns

Wealth per adult in Canada grew at an average rate of 5.9% during 2000 - 2016 when measured in USD. Over the same period, wealth per adult in Canadian dollars grew at the more modest pace of 4.9%, but has accelerated in recent years, averaging 6.5% per year since 2010. The small dip in wealth during the global financial crisis, and subsequent moderate growth in domestic currency units, is characteristic of the experience in several other major economies.

While Canada's exports are not limited to commodities, it is a resource-intensive economy, and has suffered from low commodity prices in recent years. The economy was hit hard in 2015 by the drop in the world price of oil, and has struggled to recover. However, low interest rates have been maintained, and have helped to stimulate house prices in the major urban centers. These are the reasons why household wealth has risen quite strongly in Canadian dollars, and has also increased a little in USD.

Wealth per adult in Canada (USD 270,200) is 22% lower than in the United States (USD 344,700). As in USA, more than half of household wealth is held in financial assets. Wealth is more equally distributed than south of the border, however, which accounts for the much higher median wealth of USD 96,700, compared with USD 45,000 for the USA. Relative to its neighbor to the south, Canada has both a smaller percentage of people with less than USD 10,000, and a larger percentage with wealth above USD 100,000. It has 1.1 million millionaires, and accounts for 4% of the top 1% of global wealth-holders, despite having only 0.6% of the world's adult population.

| Country summary 2016             |         |               |
|----------------------------------|---------|---------------|
| Population                       | 36      | million       |
| Adult population                 | 28      | million       |
| GDP                              | 70,993  | USD per adult |
| Mean wealth                      | 270,179 | USD per adult |
| Median wealth                    | 96,664  | USD per adult |
| Total wealth                     | 8.0     | trillion USD  |
| US dollar millionaires           | 1,117   | thousand      |
| Top 10% of global wealth holders | 15,457  | thousand      |
| Top 1% of global wealth holders  | 1,748   | thousand      |
| Quality of wealth data           | ជជជជជ   | good          |
|                                  |         |               |

Figure 1 Wealth per adult over time

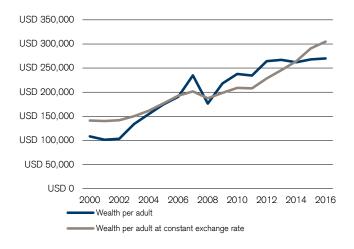


Figure 2 Composition of wealth per adult

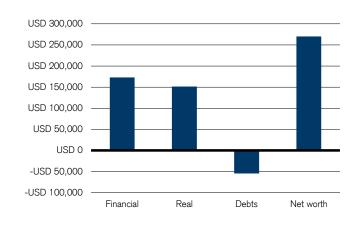
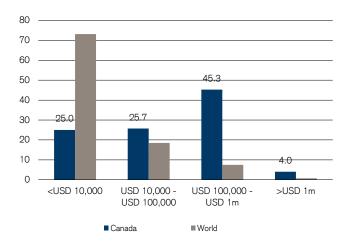


Figure 3 Wealth distribution relative to world (in %)



## Brazil

### **Challenging times**

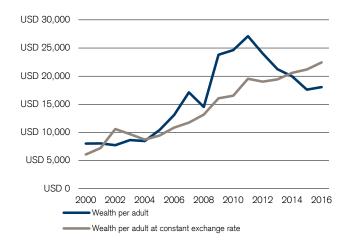
Afflicted by both political and economic crises, Brazil clearly faces some serious difficulties. In keeping with this picture, wealth per adult has fallen by a third since 2011 in USD terms. While wealth has continued to rise in domestic currency units, those gains have been largely inflationary. The earlier record shows that average household wealth tripled between 2000 and 2011, rising from USD 8,000 per adult to USD 27,100. Brazil's wealth story has therefore been one of boom and bust.

Financial assets now comprise 36% of household gross wealth according to our estimates. Many Brazilians retain a special attachment to real assets, particularly in the form of land, as a hedge against possible future inflation. Household liabilities are 18% of gross assets, down from 19% last year, and perhaps reflecting households being more cautious due to the rising uncertainties which the country is facing.

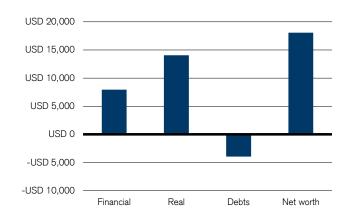
Like a number of other Latin American countries, Brazil has more people in the USD 10,000-USD 100,000 bracket relative to the rest of the world, but fewer numbers in the higher ranges. This may give a misleading impression that inequality is lower than average. Actually, overall inequality is relatively high, as indicated by the Gini coefficient value of 83%, and by the fact that Brazil has 172,000 USD millionaires and 245,000 adults in the top 1% of global wealth holders. The relatively high level of inequality partly reflects high income inequality, which is in turn related to the uneven standard of education across the population, and the lingering divide between the formal and informal sectors of the economy.

Country summary 2016 204 Population million 141 Adult population million 21,190 GDP USD per adult 18,059 Mean wealth USD per adult Median wealth 3.811 USD per adult 3.0 trillion USD Total wealth 172 thousand US dollar millionaires Top 10% of global wealth holders 3,953 thousand 245 Top 1% of global wealth holders thousand Quality of wealth data 444 fair

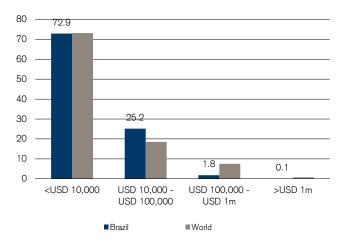
Figure 1 Wealth per adult over time



Composition of wealth per adult



Wealth distribution relative to world (in %)



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Anthony Shorrocks is Director of Global Economic Perspectives Ltd. After receiving his PhD from the London School of Economics (LSE), he taught at the LSE until 1983, when he became Professor of Economics at Essex University, serving also as Head of Department and Director of Economic Research for the British Household Panel Study. In 2001, he was appointed Director of the World Institute for Development Economics Research of the United Nations University (UNU-WIDER) in Helsinki, where he remained until 2009. He has published widely on income and wealth distribution, inequality, poverty and mobility, and was elected a Fellow of the Econometric Society in 1996. Publications include "The agewealth relationship: A cross section and cohort analysis" (Review of Economics and Statistics 1975), "The portfolio composition of asset holdings in the United Kingdom" (Economic Journal 1982), and, with Jim Davies and others, "Assessing the quantitative importance of inheritance in the distribution of wealth" (Oxford Economic Papers 1978), "The distribution of wealth" (Handbook of Income Distribution 2000), "The world distribution of household wealth" in Personal Wealth from a Global Perspective (Oxford University Press 2008), "The global pattern of household wealth" (Journal of International Development 2009) and "The Level and Distribution of Global Household Wealth" (Economic Journal 2011).

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