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Introduction

The Credit Suisse Global Wealth Report and the more detailed accompanying Global Wealth Databook aim to provide the most comprehensive study of world wealth. Unlike other studies, they measure and analyze trends in wealth across nations, from the very bottom of the "wealth pyramid" to ultra high net worth individuals.

This third Wealth Report continues our close collaboration with Professors Anthony Shorrocks and Jim Davies, recognized authorities on this topic, and the architects and principal authors of "Personal Wealth from a Global Perspective," Oxford University Press, 2008.

The last two Wealth Reports painted a detailed picture of fastrising wealth in the emerging world. This year in the context of the debate on the "fiscal cliff" and the Eurozone crisis, we change tack and focus on indebtedness by bringing our unique data set of household debt to bear.

Using new wealth data, we review past trends in household debt, and combine household and government debt to highlight which countries have sustainable overall debts levels and which have most problems with government debt.

Another new focus is inheritance, an important aspect of wealth transfer. Sixty-nine percent of Forbes billionaires are self-made, with less than one-third having inherited their wealth, although if we exclude China, Russia and the other transition countries, this figure rises to slightly above one-third. Moving beyond billionaires to look at all households in the OECD, the data are not precise, but our work suggests that 30%–50% of their wealth is inherited.

Overall, we estimate that global household wealth in mid-2012 totaled USD 223 trillion at current exchange rates, equivalent to USD 49,000 per adult globally. Looking ahead, and assuming moderate and stable economic growth, we expect total household wealth to rise by almost 50% in the next five years from USD 223 trillion in 2012 to USD 330 trillion in 2017. The number of millionaires worldwide is expected to increase by about 18 million, reaching 46 million in 2017. We expect China to surpass Japan as the second wealthiest country in the world. However, the USA should remain on top of the wealth league, with USD 89 trillion by 2017.

The Credit Suisse Global Wealth Report lays the foundation for a long-running examination by the Credit Suisse Research Institute of one of the crucial research areas in economics, and a vital driver of future megatrends. Moreover, it continues the thought leadership and proprietary research undertaken by the Research Institute over the past three years.

Hans-Ulrich Meister

Chief Executive Officer Credit Suisse Private Banking & Chief Executive Officer Credit Suisse Switzerland

Global wealth overview

The Credit Suisse Global Wealth Report aims to provide the most reliable and comprehensive data on global household wealth, covering all components of wealth and spanning the entire wealth spectrum, from very wealthy individuals to the less well-off. Subdued economic growth and collapses in equity prices have made the past year a challenging one for wealth creation and preservation. In this chapter, we review important aspects of the recent economic environment and highlight some of the topics discussed later in the report.

Changes to household wealth between mid-2011 and mid-2012

The economic uncertainties of the past year - particularly those affecting Eurozone countries - have cast a large shadow over household wealth. Economic recession in many countries, combined with widespread equity price declines and relatively subdued housing markets, has produced the worst environment for wealth creation since the outbreak of the financial crisis. As a consequence, total global household wealth fell by 5.2% to USD 223 trillion between mid-2011 and mid-2012, the first annual decline since the financial crisis of 2007-2008. However, prospects are not as gloomy as this result might suggest because the overall drop is attributable to the appreciation of the US dollar. Based on constant exchange rates, aggregate global household wealth actually rose by about 1% over the last year - not an impressive performance compared to recent years, but still better than expected, given the challenging economic environment.

Europe was responsible for USD 10.9 trillion of the total global loss of USD 12.3 trillion (see Table 1). Even with constant exchange rates, total household wealth in Europe fell by about USD 1 trillion. Asia-Pacific (excluding China and India) was the other big regional loser, shedding USD 1.3 trillion on the back of the dollar appreciation. Other losses in Africa, India and the Latin American countries were offset by modest gains in North America (USD 880 billion) and China (USD 560 billion), which had a relatively quiet time compared with recent years in which wealth growth in China has averaged 13% per annum since 2000. The latest wealth estimates indicate that by mid-2011, all regions (except Africa) had fully recovered from the financial crisis; however, Europe and India have now dropped back below the level achieved in 2007.

Asset price changes

Financial assets and non-financial assets (e.g. real estate) contributed roughly equal amounts to the decline in gross household wealth, and both components decreased in all regions of the world apart from North America and China. The percentage decline in financial assets was especially prominent in India and Europe, although Africa and Latin America also registered drops of roughly 10%. In some respects, the situation could have been much worse. In the 12 months to mid-2012, equity prices in many regions of the world fell substantially relative to their levels in mid-2011. The extent of the decline is evident from the data displayed in Figure 1, which shows that market capitalization fell in all the G8 countries as well as in China and India, and that the decline exceeded 10% in half of these countries. While Italy tops the list with a 23% drop, greater declines were experienced in Finland, Bangladesh, Austria, Romania, Spain and Israel. Market capitalization fell by more than 30% in Portugal and Ukraine, and by more than 40% in Argentina,



Table 1

Changes in household wealth in 2011–2012 by region

	Total net wealth	Change in total net wealth		Change in financial assets		Change in non-financial assets	
	2012 USD bn	2011–12 USD bn	2011–12 %	2011–12 USD bn	2011–12 %	2011–12 USD bn	2011–12 %
Africa	2,393	-127	-5.0	-112	-8.1	-42	-3.0
Asia-Pacific	50,724	-1,311	-2.5	-298	-1.0	-938	-3.1
China	20,190	562	2.9	233	2.4	367	3.4
Europe	69,351	-10,882	-13.6	-6,237	-14.9	-6,480	-12.1
India	3,193	-699	-18.0	-139	-20.8	-586	-17.4
Latin America	8,696	-760	-8.0	-447	-10.4	-450	-6.9
North America	68,173	882	1.3	361	0.6	403	1.5
World	222,719	-12,336	-5.2	-6,640	-4.6	-7,728	-5.8

Greece and Serbia. Relatively few countries escaped reversals, although stock prices rose by more than 15% in Thailand, Tunisia, Vietnam, Mexico and the Philippines, while Ireland rebounded from its recent setbacks with a robust rise of 88%.

House prices are another indicator (with a short time lag) of household wealth, primarily of the non-financial kind. In global terms, house prices have been relatively flat, as suggested by the changes recorded for nine countries in Figure 1, which are confined to a range between –6% and +6% (data for Russia are unavailable). Elsewhere, house prices rose by 8% in Poland and by 14% in Austria, while they declined by around 9% in Portugal and Taiwan, by 14% in Ireland, and by more than 40% in Malaysia.

US dollar appreciation

The last major factor affecting global wealth comparisons is the change in exchange rates versus the US dollar, which declined almost everywhere between mid-2011 and mid-2012. The 14% depreciation of the euro roughly equates to the world average, although Brazil, Hungary, India, Poland and Romania recorded declines greater than 20%. Canada and the United Kingdom managed to limit the depreciation to 6%, and China and Japan bucked the trend with a year-on-year appreciation of about 2.5%, although the yuan has been on a downtrend since early 2012, which means that the 12-month comparison for China may be somewhat misleading. Taken together, exchange

Figure 1

Percentage change in market capitalization, house prices and USD exchange rate, 2011–2012

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



rate movements reduced US dollar-denominated global wealth by about 6%, which explains the difference between the 5% decline in aggregate global wealth denominated in current US dollars and the 1% rise measured in constant dollars. Of course, exchange rate movements have a more noticeable impact on the relative position of individual countries in a global context.

Level and trends in household wealth

The impact of these asset price changes and exchange rate movements is examined in more detail in the next chapter, which provides estimates of the level and trend in total household wealth and its principal components across regions and countries since the year 2000. Chapter 3 pays special attention to the pattern of wealth holdings across the adult population, as captured in the global wealth pyramid, and summarizes year-on-year changes in the number of US dollar millionaires and their countries of residence.

Special topics for 2012

The report this year features a detailed review of household debt, covering G7 countries since the 1980s and all countries in the world since the year 2000. The analysis reveals many interesting findings that appear to have gone unnoticed. We also examine the link between household debt and the sovereign debt of countries. The other special topic in 2012 focuses on inherited wealth. It looks inter alia at the degree to which evidence of inheritance varies across wealth levels and over time, and how the share of inherited and self-made wealth across countries depends on factors such a savings rates, growth rates and life expectancy.

Looking ahead

Our research has established that by the middle of 2011, household wealth in all regions (except Africa) had fully recovered from the 2007-08 financial crisis. The prospects for Europe look less bright because household wealth has suffered hits from several quarters. Equity markets have been dismal, house prices have been stagnant, and depreciating currencies have added to the overall gloom. Eurozone countries, in particular, have tended to move downwards in the wealth league tables, and residents in these countries have tended to be replaced in the higher wealth groups. History suggests that the combination of equity price falls and currency depreciation affecting Europe over the last year are unlikely to be repeated to the same extent this year; but the overall wealth outlook remains neutral at best, rather than positive. From a global viewpoint, it is the emerging market giants - most especially China - which will continue to hold the key to household wealth creation in the immediate future (as we outline in our chapter on forecasts).





Household wealth: A global portrait

Wealth is one of the pillars of the economic system – driving economic growth, the accumulation of capital, trends in consumption, asset prices, and specific industries such as healthcare and banking. Although the very top wealth holders attract a great deal of attention, there is a shortage of reliable data and research on the overall pattern of household wealth. In this chapter, we summarize the pattern of wealth ownership across regions and countries, and analyze the core trends over time.



The Credit Suisse Wealth Report aims to be the best available source of information on global household wealth, providing the most reliable results and the most comprehensive coverage. We assemble data on household wealth from a variety of sources, and apply state-of-the-art techniques to produce estimates of the level and pattern of household wealth across individual adults. Our analysis encompasses the whole spectrum of wealth holdings from rich to poor across all countries and regions. The more extensive Credit Suisse Wealth Databook that accompanies this report describes the methodology employed in greater detail. This chapter outlines some of the key results and trends related to wealth levels.

Trends in global wealth

We estimate that global household wealth in mid-2012 totaled USD 223 trillion based on current exchange rates, equivalent to USD 49,000 per adult in the world. Figure 1 shows that by the middle of 2011, global wealth had recovered from the 2007 financial crisis; at that time, total wealth matched or exceeded the pre-crisis levels in all regions except Africa. During the past year, economic uncertainty and exchange rate movements have reduced US dollar-denominated aggregate wealth everywhere except North America and China, and this decline was sufficient to return India and Europe below the 2007 peak. While Europe remains the region with the highest total wealth, its lead on North America is now just USD 1.2 trillion, the smallest gap since Europe overtook North America in 2006.

Despite the setbacks in 2007 and more recently, household wealth has grown strongly over the past decade, with the global aggregate doubling from the USD 113 trillion recorded at the start of the millennium. Even adjusting for the rise in the global population and for exchange rate fluctuations, net worth has increased by 38% since the year 2000, equivalent to 2.7% growth per annum. The sepa-

Aggregate global wealth, 2000-2012

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 2

Total wealth 2000–2012 at constant exchange rates, by region

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



rate regional series displayed in Figure 2 based on constant USD exchange rates reinforce the view that the underlying trends have been, and continue to be, broadly positive. They show that all regions except Latin America experienced a downturn in 2007–08, and that – when exchange rate fluctuations are ignored – growth in wealth, both before and after the crisis, has been uniformly positive, apart from the period 2000–02 in North America and last year in Europe.

Global wealth by country

The figure for average global wealth masks the considerable variation across countries and regions (see Figure 3). 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. They are headed by Switzerland, which in 2011 became the first country in which average wealth exceeded USD 500,000. Exchange rate fluctuations have reduced its wealth per adult from USD 540,000 in 2011 to USD 470,000 in 2012; but this still remains considerably higher than the level in Australia (USD 350,000) and Norway (USD 330,000), which retain second and third places despite falls of about 10%. Close behind are a group of nations with average wealth above USD 200,000, many of which have experienced double-digit depreciations against the US dollar, such as France, Sweden, Belgium, Denmark and Italy. Countries in the group which have not been adversely affected have moved up the rankings - most notably Japan to fourth place with wealth of USD 270,000 per adult and the USA to seventh place with USD 260,000 per adult.

Interestingly, the ranking by median wealth is slightly different, favoring countries with lower levels of wealth inequality. As was the case last year, Australia (USD 195,000) tops the table by a considerable margin, with Japan, Italy, Belgium, and the UK in the band from USD 110,000 to 140,000, and Singapore and Switzerland with values around USD 90,000. The USA lags far behind with median wealth of just USD 55,000.

Intermediate wealth

In terms of wealth per adult, the set of richest countries has been very stable. During the past year, only Greece has dipped below the USD 100,000 threshold, although Spain and Cyprus are close to demotion with average wealth of USD 105,000 and USD 113,000 respectively. Greece joins other European Union (EU) countries (Portugal, Malta and Slovenia) at the top of the "intermediate wealth" group, with mean wealth ranging from USD 25,000 to USD 100,000. Recent EU entrants (Czech Republic, Estonia and Slovakia) are found lower down this band, but several others (Hungary, Poland, Lithuania and Romania) have been

World wealth levels 2012

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



demoted during the past year. The intermediate wealth band also encompasses a number of Middle Eastern nations (Oman, Bahrain, Lebanon, and Saudi Arabia) and several Latin American countries (Chile, Mexico, Uruguay and Costa Rica) considered to be emerging markets. Colombia has been promoted to the group, but Brazil has moved in the opposite direction, together with its BRICS colleague, South Africa.

Frontier wealth

The "frontier wealth" range from USD 5,000 to 25,000 per adult covers the largest number of countries and most of the heavily populated ones, including China, Russia, Indonesia, Brazil, Pakistan, Philippines, Turkey, Egypt and Iran. The band also contains many transition nations outside the EU (Albania, Armenia, Azerbaijan, Bosnia, Georgia, Serbia, Kazakhstan and Mongolia), most of Latin America (Argentina, Ecuador, El Salvador, Panama, Paraguay, Peru and Venezuela), and many countries bordering the Mediterranean (Algeria, Jordan, Libya, Morocco, Syria and Tunisia). South Africa is now positioned alongside other leading sub-Saharan nations in this group: Botswana, Equatorial Guinea, Namibia and Swaziland.

The final category with wealth below USD 5,000 remains heavily concentrated in Africa, although the overall geographical composition shifted this year, when India dropped down to join other major Asian nations (Bangladesh, Cambodia, Laos, Nepal, Sri Lanka and Vietnam). Belarus, Moldova and Ukraine are three countries bordering the EU, which also languish in the middle of this wealth range.

Wealth of regions

In mid-2012, Europe and North America had very similar shares of total household wealth, 31.1% and 30.6% respectively. North America is the region with the highest average wealth, but Europe's bigger population makes up the difference. Figure 4 shows that the 23% share of wealth held in Asia-Pacific countries (excluding China and India) is very close to the population share of the region. Elsewhere, the disparity between population and wealth becomes increasingly apparent. Despite making enormous strides in recent years, Chinese residents account for 21.5% of the adult population of the world, yet only 9.1% of global wealth. In Latin America, the ratio is similar: 8.4% to 3.9%; but in Africa and India, the population share exceeds the wealth share by a factor of ten.

Trends in wealth per adult and its components

As Figure 5 shows, average household net worth trended upwards from 2000 until the crisis in 2007, then fell by approximately 10% before recovering in 2011 to slightly above the pre-crisis level. Further setbacks this year have pushed wealth per adult back below the previous peak. However, exchange rate movements account for much of the year-on-year variation. Using constant USD exchange rates yields a smoother time trend and a single significant downturn in 2008, after which point the recovery has continued more or less unabated.

The time series for the financial and nonfinancial components of wealth closely follow the pat-

Wealth and population by region, 2012

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 5

Global trends in wealth per adult and its components

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Net worth
Financial wealth
Debt
Net worth at constant exchange rates
Non-financial wealth

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, less 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. Personal pension fund assets are included in principle, 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 4.6 billion in 2012. The "Asia-Pacific" region excludes China and India, which are treated separately due to the size of their populations.

Data for 2011 and 2012 refer to mid-year (end-June) estimates; the figures for earlier years indicate year-end values.

tern for net worth, and both have now returned below the 2007 peak. At the start of the millennium, financial assets accounted for well over half of the household portfolio, but the share declined until 2008, at which point the global wealth portfolio was equally split between financial and nonfinancial assets (mostly property). In the period since 2008, the balance has again tipped slightly towards financial assets.

On the liabilities side of the household balance sheet, average debt rose by 80% between 2000 and 2007, and subsequently leveled out. It now amounts to USD 8,600 per adult, about 7% lower than it was the same time a year ago. Expressed as a proportion of household assets, average debt has moved in a narrow range, rising over the period, but never exploding.

The composition of household portfolios varies widely and systematically across countries. The most persistent feature is the rise in the relative importance of both financial assets and liabilities with the level of development. For instance, financial assets account for 43.1% of gross assets in Europe and 67.1% in North America, but just 15.9% of gross assets in India. Household debt as a percentage of gross assets is 16% in Europe and 18.1% in North America, but only 3.7% in India and 8.7% in Africa. There is also variation in portfolios unrelated to the level of development. Some developed countries, like Italy, have unusually low liabilities (10.0% of gross assets), while others have surprisingly high debt, like Denmark (33.7% of gross assets). In addition, the mix of financial assets varies greatly, reflecting national differences in financial structure. The share of equities in total financial assets, for example, ranges from 43.4% in the USA, down to just 20.1% and 6.5% in Germany and Japan respectively.

Changes to household wealth from mid-2011 to mid-2012

The adverse global economic climate and the USD appreciation that occurred during the year until mid-2012 meant that household wealth rose by more than USD 100 billion in only four countries: the USA (USD 1.3 trillion), China (USD 560 billion), Japan (USD 370 billion) and Colombia (USD 100 billion). Figure 6 shows that Eurozone members suffered the largest losses, led by France (USD 2.2 trillion), Italy (USD 2.1 trillion), Germany (USD 1.9 trillion) and Spain (USD 870 billion). These losses were exacerbated by the unfavorable euro-dollar exchange rate movement, but even in euro terms, wealth declined by EUR 50 billion in Germany, EUR 148 billion in France, EUR 177 billion in Spain and EUR 286 billion in Italy. Sizeable USD wealth reductions were also recorded in the UK (USD 720 billion), India (USD 700 billion), Australia (USD 600 billion), Brazil (USD 530 billion), Canada (USD 440 billion) and Switzerland (USD 410 billion).

The largest percentage gains and losses generate a slightly different list. A steady USD exchange rate, combined with an 11% improvement in market capitalization, helped Colombia to top the country rankings with a 16% rise in household wealth. Algeria, Hong Kong, Peru and Uruguay also recorded gains of more than 5%. The downside is more evident, especially in Eurozone countries, where double-digit losses were recorded everywhere (see Figure 7). Other sizeable declines were recorded for Russia (–13%), Mexico (–14%), South Africa (–15%) and India (–18%), while Eastern Europe had a very poor year, led by the Czech Republic and Poland (both with –18%), Hungary (–25%) and Romania (–36%).

Distribution of wealth across individuals

If we are to understand how global wealth is spread across households and individuals – rather than regions or countries – we need information on the distribution of wealth within countries. For this study, we combine data on the levels of household wealth across countries and patterns of household wealth within countries in order to estimate the global distribution of wealth.

Our estimates indicate that once debts have been subtracted, an adult requires only USD 3,700 in assets to be in the wealthiest half of world citizens. However, a person needs at least USD 71,000 to belong to the top 10% of global wealth holders and USD 710,000 to be a member of the top 1%. Taken together, the bottom half of the global population possess barely 1% of total wealth, although wealth is growing fast for some members of this segment. In sharp contrast, the richest 10% own 86% of the world's wealth, with the top 1% alone accounting for 46% of global assets.

Regional comparisons

The pattern of regional representation in global wealth deciles (i.e. population tenths) is shown in Figure 8. The most striking feature is perhaps the comparison between China and India. China has very few representatives at the bottom of the global wealth distribution and relatively few at the top, but dominates the upper middle section, with 40% of its population in deciles 6-9. The sizeable presence of China in this section reflects not only its population size and its growing average wealth, but also wealth inequality which, despite recent increases, remains modest by the standards of the developing world. China's position in the global picture has shifted towards the right in the past decade due to its strong record of growth, rising asset values, and currency appreciation. China now has more people in the top 10% of global wealth holders than any other country except for the USA and Japan, having moved into third place in the rankings by overtaking Italy and Germany. In contrast, residents of

Figure 6

Change in total wealth 2011–2012: Biggest winners and losers (USD bn)

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 7 Percentage change in total wealth 2011–2012: Biggest winners and losers



Regional composition of global wealth distribution 2012

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



India are heavily concentrated in the lower wealth strata, accounting for a quarter of people in the bottom half of the distribution. However, its extreme wealth inequality and immense population means that India also has a significant number of members in the top wealth echelons.

As Figure 8 shows, residents of Asia-Pacific nations (excluding China and India) are fairly evenly spread across the global wealth spectrum. However, this uniformity masks a substantial degree of polarization. Members of high-income Asian countries, such as Japan, Singapore and Hong Kong, are heavily concentrated at the top end: half of all adults in high-income Asian countries are placed in the top global wealth decile. In contrast, residents of lower-income countries in Asia, such as Indonesia, Bangladesh, Pakistan and Vietnam, tend to be found much 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 about one quarter of the bottom half of wealth holders. Africa is even more concentrated at the bottom end. Half of all African adults are found in the bottom two global wealth deciles. At the same time, wealth inequality within and across countries in Africa is so high that some individuals are found among the top 10% of global wealth holders, and even among the top 1%.

Latin America is another region whose wealth distribution closely mimics the global pattern, with individuals fairly evenly spread across the wealth deciles. North America and Europe are skewed much more towards the high end, together accounting for 60% of individuals in the top 10%, and an even higher percentage of the top percentile. Europe alone accounts for 36% of members of the top wealth decile, a proportion that rose considerably over the past decade as the euro appreciated against the US dollar, but has declined a little during the past 12 months.

Year-on-year changes in membership of top wealth decile by country

We estimate that more than six million residents in both Japan and China joined the top global decile, along with around half a million new members each in Chile, Colombia and Hong Kong (see Table 1). They displaced about six million members of the top decile who were domiciled in Germany, Italy and Spain, and nearly five million adults resident in the major developing economies of Brazil, South Africa, India, Mexico and Taiwan. To belong to the top percentile (i.e. top 1%) of the global wealth distribution required USD 710,000 in mid-2012; hence, the pattern of residence across countries is expected to be similar to that of millionaires. Our results indicate that almost

Table 1

Winners and losers in the global wealth distribution

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012

Adults (thousand) in global top 10%							
Country	2011	2012	Change				
Japan	68,894	75,525	6,631				
China	28,950	34,996	6,046				
UK	28,453	29,321	868				
Chile	739	1,416	677				
Denmark	1,641	2,190	549				
Colombia	1,331	1,846	515				
Hong Kong	1,174	1,654	480				
Korea	7,302	7,611	309				
Canada	13,315	13,621	306				
Netherlands	5,727	6,010	283				
Poland	1,551	1,334	-217				
Taiwan	6,714	6,384	-330				
Israel	1,862	1,500	-362				
Mexico	5,651	5,221	-430				
India	4,138	3,616	-522				
South Africa	2,449	1,586	-863				
Italy	32,184	30,684	-1,500				
Germany	29,880	28,143	-1,737				
Brazil	9,322	6,656	-2,666				
Spain	16,361	13,640	-2,721				
World	451,795	459,238	7,443				

Adults (thousand) in global top 1%						
Country	2011	2012	Change			
USA	12,584	16,376	3,792			
Japan	5,642	6,590	948			
Chile	44	66	22			
Peru	10	28	18			
Morocco	3	21	18			
Colombia	60	75	15			
Philippines	28	38	10			
UAE	65	70	5			
Hong Kong	133	138	5			
Thailand	26	30	4			
Taiwan	553	404	-149			
Spain	671	517	-154			
Brazil	507	352	-155			
Belgium	634	461	-173			
Canada	1,603	1,428	-175			
Denmark	426	201	-225			
Australia	1,861	1,571	-290			
France	3,982	3,540	-442			
Germany	2,964	2,455	-509			
Italy	2,778	2,073	-705			
World	45,185	45,938	753			

four million US residents moved into the top global wealth percentile, together with nearly one million Japanese. As expected, they replaced many residents of Eurozone countries: Italy (-705,000), Germany (-509,000), France (-442,000), Belgium (-173,000) and Spain (-154,000). Australia, Denmark, Canada, Brazil and Taiwan between them shed about another million members.

World wealth spectrum

Wealth is one of the key components of the economic system. It is valued as a source of finance for future consumption, especially 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 restricted options for business finance, as is the case in much of the developing world.

The Credit Suisse Wealth Report is designed to provide a comprehensive portrait of world wealth,

covering all regions and countries, and all parts of the wealth spectrum from rich to poor. Despite a decade of negative real returns on equities, several equity bear markets, and the collapse of housing bubbles, we find that total global wealth has doubled since 2000. Strong economic growth and rising population levels in emerging nations are important drivers of this trend.

The list of top ten countries in the wealth-peradult league table includes many smaller, dynamic economies – Switzerland, Norway, Luxembourg, Singapore and Sweden – as well as Australia and G7 members, Japan, France, the USA and the UK. Notable cases of emerging wealth are found in Chile, Columbia, the Czech Republic, Lebanon, Slovenia and Uruguay, while "frontier" wealth is evident in Egypt, Indonesia, Malaysia, Tunisia and Vietnam.

For a number of reasons, wealth varies greatly across individuals. Our estimates suggest that the lower half of the global population owns barely 1% of global wealth, while the richest 10% of adults own 86% of all wealth, and the top 1% account for 46% of the total. Over time, this may change, particularly if enough low-wealth countries experience rapid growth, and if China and India fulfill their potential to be major catalysts of global metamorphosis. However, any trend towards equalization is likely to be slow. In the next section, we look at the pattern of wealth holdings across individuals in more detail.

The global wealth pyramid

This chapter looks in more detail at the pattern of wealth ownership across all adults in the world, through the lens of the "wealth pyramid". This allows us to analyze not only the top echelons of wealth holders, but also the "middle" and "bottom" sections of the wealth pyramid, which other studies tend to ignore.

Many factors contribute to the disparity in personal wealth across individuals. At one end of the spectrum, there are individuals at early stages of their career who have had little chance and little motivation to accumulate assets, those who have suffered business setbacks or personal misfortunes, and those who simply live in parts of the world where opportunities for wealth creation are severely limited. At the other end of the spectrum, there are individuals who have acquired a large fortune through a combination of talent, hard work or simply being in the right place at the right time.

The wealth pyramid

The wealth pyramid shown in Figure 1 captures these wealth differences in striking detail. It has a large base of low wealth holders, with the upper tiers occupied by progressively fewer people. The pyramid data are derived from our estimates for mid-2012 and it thus provides a snapshot of the wealth pattern across the adult population. While the overall features tend to change slowly over time, the various strata are very fluid, and the individual occupants are highly mobile, seldom remaining in the same place over the course of their lifetime. For this reason, while the top stratum of the pyramid remains the principal driver of private asset flows and investment trends, the emerging wealth holders in the middle and base segments are rightly seen as sources of great dynamism, triggering new trends in consumption and industrial change.

In 2012, we estimate that 3.2 billion individuals – more than two-thirds of the global adult popula-

tion – have wealth below USD 10,000, and a further one billion (23% of the adult population) are placed in the USD 10,000–100,000 range. While the average wealth holding is modest in the base and middle segments of the pyramid, total wealth amounts to USD 39 trillion, underlining the potential for new consumer trends products and for the development of financial services targeted at this often neglected segment.

The remaining 373 million adults (8% of the world) have assets exceeding USD 100,000. This includes 29 million US dollar millionaires, a group which contains less than 1% of the world's adult population, yet collectively owns nearly 40% of global household wealth. Amongst this group, we estimate that 84,500 individuals are worth more than USD 50 million, and 29,000 are worth over USD 100 million.

The composition of the wealth pyramid in 2012 is broadly similar to that of the previous year, except for the fact that the overall reduction in total wealth increases the percentage of adults in the base level from 67.6% to 69.3% and reduces the relevant population share higher up the pyramid by a corresponding amount. The respective wealth shares are virtually unchanged.

The base of the pyramid

The various strata of the wealth pyramid have distinctive characteristics. Although members of the base level are spread widely across all regions, representation in India and Africa is disproportionately high, while Europe and North America are corre-





spondingly underrepresented (see Figure 2). The base tier has the most even distribution across regions and countries, but it is also the most heterogeneous, spanning a wide range of family circumstances. In developed countries, only about 30% of the population fall into this category, and for most of these individuals, membership is a transient or life cycle phenomenon associated with youth, old age, or periods of unemployment. In contrast, more than 90% of the adult population in India and Africa are located within this band. In many low-income African countries, the percentage of the population is close to 100%. Thus, for many residents of low-income countries, lifetime membership of the base tier is the norm rather than the exception. However, lower living costs mean that the upper limit of USD 10,000 is often sufficient to assure a reasonable standard of living.

While bottom-of-the-pyramid countries have limited wealth, it often grows at a fast pace. In India, for example, wealth is skewed towards the bottom of the wealth pyramid, yet it has tripled since 2000. Indonesia has also seen dramatic growth, and aggregate wealth in Latin America is now USD 8.7 trillion, compared to USD 3.4 trillion in 2000. In contrast, while North Americans dominate the top of the wealth pyramid, wealth in the USA has grown more modestly, from USD 39.5 trillion in 2000 to USD 62 trillion today.

Middle class wealth

The one billion adults located in the USD 10,000– 100,000 range are the middle class in the global distribution of wealth. The average wealth holding is close to the global average for all wealth levels, and the total wealth of USD 32 trillion gives this segment considerable economic weight. The regional composition of this tier most closely corresponds to the global pattern, although India and Africa are underrepresented. The comparison of China and India is particularly interesting. India is host to just 3% of the global middle class, and the share has been relatively stagnant in recent years. In contrast, China's share has been growing fast and now accounts for over one-third of members, ten times higher than India's.

High wealth segment of the pyramid

The regional composition changes significantly when it comes to the 373 million adults worldwide who make up the "high" segment of the wealth pyramid – those with a net worth above USD 100,000. North America, Europe and the Asia-Pacific region together account for 89% of the global membership of this group, with Europe alone home to 141 million members (38% of the total). This compares with about 2.4 million adult members in India (0.6% of the global total) and a similar number in Africa.

The number of people in a given country with wealth above USD 100,000 depends on three factors: population size, the average wealth level, and wealth inequality within the country concerned. In 2012, only 15 countries have more than 1% of the global membership. The USA leads with 21% of the total. In this instance, the three factors reinforce each other: a large population, combined with high mean wealth and an unequal wealth distribu-

couple of points more than a year ago. The most populous EU countries - Italy, the UK, Germany, and France - each contribute 6%-8% to the high wealth segment, and each country has experienced a small decline in its membership share during the year. For many years, these countries have occupied positions three to six in the global rankings, but this year China edged France out of sixth place, a dramatic improvement from the situation in 2000, when China's representation in the top wealth groups was too small to register. Brazil, Korea and Taiwan are other emerging market economies with at least four million residents with a net worth above USD 100,000. Mexico accounted for more than 1% of the group in 2011, but has dropped below this benchmark this year.

Top of the pyramid

A different pattern of membership is again evident among the world's millionaires at the top of the pyramid (see Figure 3). Compared to individuals with wealth above USD 100,000, the proportion of members from the United States almost doubles to 39%, and the shares of most of the other countries move downwards. There are exceptions, however. France moves up to third place in the rankings, and Sweden and Switzerland both join the group of countries with more than 1% of global millionaires.

Changing membership of the "millionaire group"

Changes to wealth levels since mid-2011 have affected the pattern of wealth distribution. The overall decline in average wealth has raised the proportion of adults with wealth below USD 10,000 from 67.6% in mid-2011 to 69.3% in mid-2012, and reduced the number of millionaires by slightly more than one million (see Table 1). There were 962,000 new millionaires in the United States and 460,000 in Japan, but no significant increase in numbers elsewhere. However, Europe shed almost 1.8 million US dollar millionaires, most notably in Italy (-374,000), France (-322,000), Germany (-290,000), Denmark (-179,000), Sweden (-142,000) and Spain (-87,000). Australia, Canada, Brazil and Taiwan are the other countries in the group of the top ten losers. The losses were sufficient to drop Brazil, Denmark and Taiwan (along with Belgium) from the list of countries with more than 1% of the total number of millionaires worldwide.

Figure 2

Regional membership of global wealth strata

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 3 Dollar millionaires by country of residence

USA 39%

High net worth individuals

To estimate the pattern of wealth holdings above USD 1 million requires a high degree of ingenuity because at high wealth levels, the usual sources of wealth data – official statistics and sample surveys – become increasingly incomplete and unreliable. We overcome this deficiency by exploiting wellknown statistical regularities in the upper parts of the wealth distribution to ensure that the top wealth tail is consistent with the annual Forbes tally of global billionaires and similar "rich list" data published elsewhere. 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 of the world at various stages of their life cycles, HNW and UHNW individuals are heavily concentrated in particular regions and countries, and tend to share a similar lifestyle, participating in the same global markets for high coupon consumption items, even when they reside on different continents. The wealth portfolios of individuals are also likely to be similar, dominated by financial assets and, in particular, equity holdings in public companies traded in international markets. For these reasons, using official exchange rates to value assets is more appropriate than using local price levels.

We estimate that there were 28.5 million HNW individuals with wealth between USD 1 million and USD 50 million in mid-2012, of whom the vast majority (25.6 million) fall in the USD 1–5 million range (see Figure 4). One year ago, Europe overtook North America as the region with the greatest number of HNW individuals, but tradition has been

restored this year, with 11.8 million residents (42% of the total) in North America and 9.2 million (32%) in Europe. Asia-Pacific countries excluding China and India have 5.7 million members (20%), and we estimate that there are currently a fraction under one million HNW individuals in China (3.4% of the global total). The remaining 753,000 HNW individuals (2.6% of the total) reside in India, Africa or Latin America.

Ultra high net worth individuals

Our estimates suggest that worldwide there are 84,500 UHNW individuals, defined here as those with net assets exceeding USD 50 million. Of these, 29,300 are worth at least USD 100 million and 2,700 have assets above USD 500 million. North America dominates the regional rankings, with 40,000 UHNW residents (47%), while Europe has 22,000 individuals (26%), and 12,800 (15%) reside in Asia-Pacific countries, excluding China and India.

In terms of individual countries, the USA leads by a huge margin with 37,950 UHNW individuals, equivalent to 45% of the group (see Figure 5). The recent fortunes created in China have propelled it into second place with 4,700 representatives (5.6% of the global total), followed by Germany (4,000), Japan (3,400), the United Kingdom (3,200) and Switzerland (3,050). Numbers in other BRIC countries are also rising fast, with 1,950 members in Russia, 1,550 in India and 1,500 in Brazil, and strong showings are evident in Taiwan (1,200), Hong Kong (1,100) and Turkey (1,000).

Although there is very little comparable data on the past, it is almost certain that the number of UHNW individuals is considerably greater than it was a decade ago. The overall growth in asset values accounts for part of the increase, together with the

Table 1

Changes in the number of millionaires by country, 2011–2012

Main winners			Main losers					
Country	Adults (thousand) with wealth above USD 1 m			Country		Adults (thousand) with wealth above USD 1 m		
	2011	2012	Change		2011	2012	Change	
USA	10,061	11,023	962	Italy	1,544	1,170	-374	
Japan	3,121	3,581	460	France	2,606	2,284	-322	
Peru	4	18	14	Germany	1,753	1,463	-290	
Chile	28	42	14	Denmark	296	117	-179	
Morocco	1	14	13	Australia	1,079	905	-174	
Colombia	37	46	9	Sweden	485	343	-142	
Philippines	18	25	7	Canada	940	842	-98	
Thailand	17	20	3	Brazil	319	227	-92	
UAE	40	43	3	Taiwan	343	253	-90	
Hong Kong	89	92	3	Spain	400	313	-87	
World	29,674	28,640	-1,034	World	29,674	28,640	-1,034	

appreciation of currencies against the US dollar over much of the period. However, it also appears that, notwithstanding the credit crisis and the more recent setbacks, the past decade has been especially conducive to the establishment of large fortunes.

Changing fortunes

Wealth is often seen in terms of a pyramid, with millionaires on top and poorer people at the base. Many commentaries on wealth focus exclusively on the top part of the pyramid, which is unfortunate because the middle and base segments account for about USD 40 trillion of global household wealth, and satisfying the needs of the owners of these assets is likely to drive new trends in consumption, industry and finance. Wealth mobility over time also means that many of the future successful entrepreneurs and investors are currently located in the lower wealth strata. China, Taiwan, Korea, and Brazil are countries that are already rising guickly through this part of the wealth pyramid, with Indonesia close behind and India growing fast from a low starting point.

At the same time, the ultra wealthy top-of-thepyramid segment will continue to be the strong driver of private asset flows and investment trends. Our figures for mid-2012 indicate that there are nearly 30 million HNW individuals, with almost one million located in China and 5.7 million residing in Asia-Pacific countries other than China and India.

At the top of the pyramid, there are 84,500 UHNW individuals with net worth exceeding USD 50 million. The recent fortunes created in China lead us to estimate that 4,700 Chinese individuals (5.6% of the global total) now belong to the UHNW group, together with a similar number in Russia, India and Brazil (taken together).

Figure 4

The apex of the pyramid

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 5

Ultra high net worth individuals 2012: Selected countries



Household debt

The aftermath of the credit crisis and the ongoing Eurozone crisis have seen rising levels of government debt, as well as an intense interest in this by markets. This chapter brings an important related element – household debt – into focus. Using new wealth data, we review past trends in household debt and combine household and government debt to highlight countries that have sustainable overall debt levels and those with the greatest sovereign debt problems.

Global trends in household debt

Rising household debt has been one of the most enduring and widespread economic trends of the past 30 years. Evidence for G7 countries suggests that this phenomenon began around 1975. Before this date, the ratio of household debt to annual disposable income within countries remained fairly stable over time and rarely rose above 75%. By the year 2000, household debt in Canada, Germany, the UK and the USA was equivalent to at least 12 months' income, and in Japan it equated to 15 months' income (see Figure 1). Household debt in France and Italy started from a much lower base, but the gap narrowed considerably between 1980 and 2000, with the debt to income ratio approximately doubling in France and rising even faster in Italy.

In most G7 countries, these trends continued until the financial crisis, and then moderated or reversed. When the debt to income ratio peaked, it was two times higher than the level in the early 1980s in Canada, France and the USA, it was three times higher than the earlier level in the UK, and ten times higher in Italy. In contrast, the debtincome ratio in Japan has been fairly flat since 1990 and around 2000, it even began to decline slightly in Germany and Japan. While the financial crisis prompted major debt reductions in the UK and the USA after 2007, the trend towards greater



indebtedness has carried on regardless in Canada and Italy. Given its history and reputation for prudent economic policies, it is worth noting that Canada currently has the highest household debtincome ratio among G7 countries.

Estimates of household debt are available for all countries since the year 2000. Our calculations suggest that the recent experience of G7 countries was widely replicated elsewhere. Adjusted for exchange rate fluctuations, total global household debt grew by 8% per annum in 2000–07, and then flattened out (see Figure 2). For the entire period 2000–12, aggregate debt rose by 81%, equivalent to 5% growth per annum. A rising global population accounts for part of the increase: debt per adult grew just 45% for the entire period. Currency appreciation against the US dollar has tended to



operate in the opposite direction. With prevailing exchange rates, total household debt more than doubled before the financial crisis, rising from USD 18.8 trillion in 2000 to 38.8 trillion in 2007, before flattening out. The current level is USD 39.4 trillion.

Regional patterns of household debt

The regional composition of household debt is dominated by North America, Europe and Asia-Pacific countries (excluding China and India), which together account for 94% of the global total. Latin America and Africa, along with China and India, have low levels of aggregate debt and rank even lower in terms of debt per adult. For example, in 2012, the average figure is USD 427 for Africa and USD 162 for India compared to USD 57,063

Figure 1

Household debt-income ratio in G7 countries, 1960-2011



Global household debt, 2000–2012, base year 2000

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 3

Debt per adult, constant exchange rate, base year 2000

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



for North America. However, the pattern is slowly changing. Based on constant exchange rates, debt per adult grew by 150% in China and Africa between 2000 and 2012, by 200% in Latin America, and by almost 250% in India, compared to 45% for the world as a whole and just 7% for the Asia-Pacific region (see Figure 3).

Household debt per adult in developed economies

Average debt per adult shows even greater variation across countries than average income or average wealth. The highest levels of debt per adult are found in developed countries with well functioning institutions and sophisticated credit markets. Based on average USD exchange rates since 2000, Denmark, Norway and Switzerland top the league table for household debt per adult in 2012, with values above USD 100,000 (see Figure 4). This is roughly twice the level seen in Canada, Sweden, the USA, the UK and Singapore, with Ireland and the Netherlands sitting between the two groups. By these standards, the average debt per adult in Spain (USD 31,200), Portugal (USD 25,800), Italy (USD 23,900) and Greece (USD 19,000) looks quite modest.

Figure 4 shows that average debt per adult increased during 2000–07 in all the high debt countries apart from Germany, where average debt has been flat, and Japan, where household debt has declined – possibly due in part to the ageing population, given the negative relationship between debt and age. Countries with the highest debt per adult showed little tendency towards debt reduction in the aftermath of the financial crisis: Ireland, the USA and Hong Kong are the main exceptions. Apart from Germany and Japan, only Hong Kong and Singapore have debt levels in 2012 which are close to the levels recorded at the start of the millennium.

Debt in proportion to wealth

Expressed as a fraction of net worth, household debt is typically 20%-30% of wealth in advanced economies, but much higher levels are sometimes recorded, for example in Ireland (44%), the Netherlands (45%) and Denmark (51%). The reasons lie with both the numerator and the denominator in the ratio of debt to assets. Countries that have a strong welfare state with generous public pensions provide less of a stimulus for households to accumulate financial assets. Public housing has a similar effect on the non-financial side, although its share of the total housing stock has been declining in most countries in recent decades, which makes this argument less compelling. Nevertheless, in Scandinavia and elsewhere, these forces make the debt to assets ratio higher by depressing the denominator. Sophisticated financial institutions and easy access to credit are further reasons why debt is sometimes high. The impact of government

policies can also be seen, for instance in high levels of student debt accompanied by a relaxed schedule for student debt repayment. Taking all of these factors into consideration, it is not so surprising that debt can amount to one-third of gross assets - and hence one half of net assets - in a country like Denmark.

The burden attached to the rise in household debt needs to be evaluated in the context of the substantial increase in personal wealth during the past decade. Despite the rise in wealth, in most countries where household debt exceeds USD 1 trillion, the ratio of debt to net worth rose on average by about 50% during the period 2000-08 (see Figure 5). Debt in the USA increased from 18.7% of net worth in 2000 to peak at 30.5% in 2008 before falling back to 21.7% in 2011. The UK exhibited a very similar pattern, with the debt ratio climbing from 15.2% to 23.4% between 2000 and 2008, subsequently dropping to 20% in 2012. The rise in the debt-wealth ratio was even more precipitous in the Netherlands and Spain, and although the increase abated slightly to 71% in the Netherlands, no reduction is evident in Spain, whose ratio is now 90% higher than it was in 2000.

Debt growth was also high in Italy, but started from a much lower base, with the result that the debt-wealth ratio of 11.1% in 2012 is not just the lowest among the countries shown in Figure 5, but also below the average for the world as a whole, which is 17.7%. France (12.8%), Germany (16.4%) and Japan (16.6%) have now also fallen below the global average, with wealth in France growing robustly enough to reduce the debt ratio by about 10% during the past decade, and Germany managing to reduce the ratio by one-third, from 24.3% in 2000 to 16.4% in 2012. Singapore almost matched Germany's performance in reducing the debt burden. Our estimates indicate that Malaysia and the Philippines may have done even better, although the data for these countries are less reliable.

Household debt in developing and transition countries

Because personal debt is often a sensitive issue, collecting data on debt poses special difficulties for household surveys. This, together with the greater prevalence of informal debt, may help explain why measured household debt is typically low in developing countries - less than 10% of net assets overall. But immature financial markets (and weak property rights) also mean that household demand for credit is often not satisfied. In addition, demand for credit may be constrained by the fact that even small amounts of debt can be a considerable burden for the very poor in developing countries, especially when usurious interest rates are charged.

In the developing world, the absolute level of debt is seldom more than USD 1,000 per adult, but exceptionally high levels - above USD 5,000 per adult - are evident in Brazil, Chile and South Africa

Figure 4

Countries with high debt per adult

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Debt per adult in USD using constant country exchange rates

Figure 5

200

Trends in debt-wealth ratio



United States - France - Japan - Germany

Average debt in developing countries

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012





Figure 7

Trends in debt-wealth ratio for transition countries

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012 10000 Logarithmic scale, base year 2000 1000 100 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2000 2001 2002 Romania
Ukraine Russia Hungary Poland Vietnam Slovakia Czech Republic China World

(see Figure 6). Similar levels of household debt are also associated with transition countries that have entered the European Union (EU), such as the Czech Republic, Hungary, Poland, Romania and Slovakia, as well as some that have not, such as Ukraine. At the bottom of the range, we estimate average debt to be below USD 300 in Indonesia, and around USD 200 in India and Vietnam. China (about USD 600) and Russia (about USD 1,300) are examples of intermediate countries.

Low absolute levels of debt make it sometimes appear that developing countries have escaped the trend towards rising household debt in recent years. Exactly the opposite is true. Our estimates suggest that Malaysia and the Philippines are the only two developing countries for which debt per adult is likely to have grown less than the global average of 45% during 2000-12 (see Figure 7). Debt per adult more than doubled in Argentina, the Czech Republic, Mexico, Morocco and Uruguay, and more than trebled in Chile, Colombia, India and South Africa. In Indonesia and Slovakia, average debt rose by a factor of five, and in Hungary, Poland, Turkey and Vietnam by a factor of eight. But the biggest changes were recorded in other transition countries: Russia, where average debt increased by a factor of 20 between 2000 and 2007; and Romania and Ukraine, where average debt has seen a fiftyfold increase since 2000 (see Figure 7).

Are household debt levels sustainable?

The fact that the wealthiest and most economically successful countries tend to have relatively high levels of household debt suggests that debt is both a blessing and a curse. The problem is understanding how much household debt is needed to oil the wheels of economic progress without precipitating the crises of confidence seen recently in several European nations. Table 1 attempts to cast some light on this issue based on the cross-classification of countries according to their debt-wealth ratio and growth in debt per adult.

Several patterns are evident. First, high-income economies congregate in the upper left section of the table: in other words, they tend to have medium or high levels of household debt relative to assets, and low to medium debt growth in recent years. The Nordic region is firmly located within the high debtmedium debt growth category, and the Asian Tigers are typically located in the medium debt-low debt growth section, with Korea an outlier in this respect. The four upper left cells contain all of the G7 countries but, interestingly, no nation from Latin America.

A second feature is the high growth in debt witnessed in most transition countries in recent years. This is not surprising given the lack of investment opportunities and credit and mortgage facilities in the pre-reform era. What is perhaps unexpected is the speed at which Hungary, Poland, Slovakia and Ukraine have joined the group of countries for which household debt exceeds 20% of net worth. Many Eastern European countries experienced a debt-financed housing boom in the post-reform era, which, when it went into reverse, meant that lower levels of property assets were supporting high levels of mortgage debt. Also, in the high debt ratio-high debt growth category are two of the emerging market leaders – Brazil and South Africa – with Russia close by.

The cross-classification in Table 1 is too simplistic to provide a solid basis for policy lessons. Nevertheless, a high ratio of debt to net worth is not itself a negative signal for a country. Indeed, it is close to being a prerequisite for economic success. What is problematic is the speedy growth in household debt. It is worth noting that Greece, Hungary and the United Arab Emirates all appear in the upper right-hand section and all have made headlines in recent years with regard to debt problems. While these headline issues have not been directly linked to household borrowing, the high speed at which household debt has grown is perhaps indicative of a relaxed credit culture that can have further repercussions.

The household burden of government debt

The recent concern over debt sustainability has focused almost exclusively on sovereign debt and the vulnerability of the banking sector. Yet the degree to which governments can finance external debt in times of difficulty depends in part on the net assets of the household sector. More importantly, when considering whether their assets are sufficient to meet future consumption needs and emergencies, households should take account of the debt that governments are accumulating on their behalf. We have assembled data on government financial assets and debt for 26 countries for the period 2000–11. Although these data exclude off-balance sheet items such as non-funded state pensions, they nevertheless provide some indication of the net liabilities of governments, how these compare with household net worth, and how the position has changed over time, particularly after the financial crisis.

The overall situation is summarized in Figure 8. In almost all countries, government liabilities exceeded government financial assets in 2011, leaving the government a net debtor. However, the governments of Bulgaria, Finland and Sweden are all net creditors, and Norway's stabilization fund gives it a huge surplus, amounting to USD 199,000 per adult in 2011, equivalent to 15 times the net financial assets of households. The fact that Nordic countries have a high level of household debt is one of the reasons why government debt tends to be negatively correlated with household debt (see Figure 9). Denmark, for example, has the highest household debt to wealth ratio in the world, yet net government debt amounts to just 3% of the net financial wealth of households. In contrast, Japan has moderate household debt, but this is offset by net government debt of USD 77,000 per adult, the highest of any country in our sample.

The negative relationship between government debt and household debt (shown in Figure 9) is consistent with so-called Ricardian Equivalence, which claims that forward-looking taxpayers understand that an increase in government debt has to be paid for in the future via higher taxes. They will therefore save more or reduce their debts when government debt increases. In theory, under idealized conditions, each dollar rise in government debt

Table 1

Countries grouped according to the debt-wealth ratio and debt growth

		Growth in debt per adult, 2000-2012						
		< 5% p.a.		5%–10% p.a.		> 10% p.a.		
Debt-wealth ratio 2012		Hong Kong		Australia	Netherlands	Brazil	Poland	
		Luxembourg		Canada	New Zealand	Greece	Slovakia	
	High > 20%	Portugal		Denmark	Norway	Hungary	South Africa	
	2070	Switzerland		Finland	Spain	Korea	Ukraine	
		USA		Ireland	Sweden	United Arab Emirates		
	Medium 10%-20%	Austria	Malaysia	Belgium		Chile		
		France	Saudi Arabia	Czech Republic		Romania		
		Germany	Singapore	Italy		Russia		
		Israel	Taiwan	Kuwait				
		Japan	Thailand	UK				
		Egypt		Argentina	Morocco	Algeria	Pakistan	
		Peru		China	Tunisia	Bangladesh	Qatar	
	Low	Philippines		Mexico	Uruguay	Colombia	Serbia	
	< 10%					India	Turkey	
						Indonesia	Vietnam	
						Iran		

Net financial wealth of households and governments for selected countries in 2011

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 9

Household and government debt as a percentage of financial assets 2011

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 10

Government net financial debt as a percentage of household net financial assets for selected countries

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



would stimulate a dollar increase in household net worth. While empirical tests of Ricardian equivalence have been extensive and inconclusive overall, they have not highlighted the relationship between government debt and household debt across countries. Our finding of a significant negative relationship may well prompt further examination of the relationship between government debt and household liabilities based on international data.

Changes over time

Excluding the Nordic region, government net debt averaged 41% of household net financial assets in 2011. Countries with worse-than-average positions are Italy (49%), Japan (56%), Spain (56%), Poland (57%), Hungary (71%), Ireland (92%) and Greece (112%). With the exception of the Nordic countries (Norway, Finland, Denmark and Sweden), the government's financial position worsened relative to household assets in all countries between 2000 and 2011, particularly after the 2008 financial crisis (see Figure 10). Bulgaria, the Czech Republic, Lithuania and Romania all moved from a government surplus in 2000 to a deficit in 2011. The deterioration in Romania has been particularly severe, equivalent to wiping out all financial assets owned by households. In Australia, the government's net financial position was relatively flat and close to being balanced until 2008, but it has since climbed to 18% of household net financial assets. Relative government debt has grown by 18% in the USA (from 14% to 32%) and by a similar amount in Hungary, Poland, Portugal, Spain and the UK. The rise was slightly higher in Japan (from 28% to 56%), and considerably higher in Ireland (17% to 92%) and Greece (59% to 112%).

Which countries have the greatest problems with government debt?

Among the countries with the highest levels of net government debt relative to household financial assets, the situation in Japan, Poland and Spain appears to be manageable, at least based on the evidence until 2011. In Hungary, government debt rose between 2000 and 2010, almost wiping out the total value of household financial assets, but it pulled back from the brink in 2011. Ireland appears more problematic (see Figure 13). Net government debt was close to zero in 2007, but it has since grown at a faster rate than any other country, reaching 92% of household net financial assets in 2011. The equity market in Ireland was buoyant over the past year, which means that the situation may have eased in 2012. However, the overall signs remain worrisome for Irish citizens.

While the problems facing Hungary and Ireland are serious, they pale in comparison to those facing Greece. Household debt in Greece saw an almost sixfold increase between 2000 and 2009, and afterwards edged lower to USD 20,400 per adult in 2011. The increase in debt was much faster than growth in financial assets. As a consequence, household debt rose from 12% of financial assets in 2000 to 57% in 2011. Government net debt per adult also increased over the period, rising 190% to USD 53,600 between 2000 and 2009, before declining to USD 32,500 in 2011. Greece is the only country whose net government debt exceeds total household financial assets, and this has been the case every year since 2008. Assigning government debt to households would have resulted in the Greek population having negative financial assets averaging USD 13,000 in 2008-10. While the situation has eased a little since then, it still results in negative net financial assets averaging USD 4,800 in 2011.

Summary

With the regular occurrence of sovereign debt crises, relatively little attention has been given to the parallel issue of personal debt. Yet household debt has transformed over the past 30 years from lowlevel borrowing mostly securitized on housing assets into wholesale credit seemingly available to anyone for any purpose. As a consequence, household debt as a proportion of income has doubled almost everywhere, and has on occasion exploded by a factor of ten or more.

Our analysis of household debt highlights a number of facts that may come as a surprise. For example, Canada now has the highest debt to income ratio among G7 countries, and Italy has the lowest. The countries with the highest levels of household debt per adult – Denmark, Norway and Switzerland – are among the wealthiest and most successful; the average debt in Greece, Italy, Portugal and Spain is much lower. Debt has risen significantly in developed countries over the past decade, but it is nowhere near the scale of the developing world, where almost every country has surpassed the global average of 45% growth during 2000–12.

While a high ratio of debt to net worth does not itself signify a problem for a country, it does appear to send a warning signal when combined with rapid growth in household debt. Greece, Hungary and the United Arab Emirates fall within this category and all have had problems with debt in recent years. These problems were not directly related to household debt, but rapid growth in personal debt in a highly indebted country is perhaps indicative of a relaxed credit environment that may have wider implications.

Contagion in the Eurozone links Ireland, Italy, Portugal and Spain with the problems in Greece. Our estimates of household assets and debts suggest that Greece is an outlier among Eurozone countries, and that the other countries are better placed to absorb the rise in government debt. However, the deterioration in Ireland's position since 2008 remains a source of serious concern. Beyond the Eurozone, Hungary and Romania are the countries that need to be most carefully monitored.

Figure 11

Net financial assets of households and government: Greece

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



Figure 12

Net financial assets of households and government: Hungary





Figure 13

Net financial assets of households and government: Ireland







Inheritance of wealth

Inheritance is an important component of wealth. Worldwide, 31% of Forbes billionaires inherited at least some of their wealth. If we exclude China, Russia and other transition countries, the figure is 38%. More broadly, our analysis suggests that inherited wealth likely accounts for 30%-50% of total household wealth in OECD countries. In low-growth or traditional societies, the share is probably higher. At the other end of the scale, very little household wealth in today's transition economies was inherited.

Introduction

There are positive as well as negative aspects to inheritance from both an economic and a social standpoint. For individuals, it can create opportunity – the opportunity to start a new business or to expand an existing one, the chance to acquire a good education, or the freedom to move in order to pursue a better life for oneself and one's children. Historically, it has given some talented people sufficient free time to be highly creative in the arts or sciences. Inheritors have also founded or supported major charities and public projects, including hospitals, universities, museums, and art galleries. In other words, inheritance can be an important positive force.

Inheritance also has negative connotations. It is often seen as a "birthright lottery," in which lifetime prospects are linked to birth rather than personal choices, effort, and achievement. Andrew Carnegie and others who amassed self-made fortunes feared that the expectation of inheritance might undermine the work ethic and ambition of heirs, and established foundations or made other charitable donations to partly make up for this. Such concerns could weaken the fabric of society if enough people consider the allocation of resources and opportunities to be unfair, or if wealthy offspring are dissolute and irresponsible. The economy may also suffer if an excessive proportion of its industry or finance is in the hands of heirs who lack ambition as opposed to dynamic self-made individuals. If a large proportion of the nation's wealth is inherited, growth prospects could be impaired.

Concerns about the effects of inheritance have had an impact on public policy in connection with public education, progressive taxes and death duties, for example. These concerns also lead to a desire for information on the level and distribution of inherited wealth. Here, we review some of the important research recently undertaken and offer some new evidence on the topic. Much of the empirical evidence has been collected in Europe and North America, but patterns and trends in emerging market and developing countries are also very much of interest.

Evidence on inheritance

Modern economic research on inheritance began with a study of males in the UK who had left estates at their death worth GBP 10,000 or more in the 1920s. An examination of the wills of their predecessors concluded that about one-third had inherited their fortunes, one-third were self-made, and one-third belonged to an intermediate category. Later studies using a similar methodology discovered that inheritance played a less important role for top wealth holders in the UK over the next 50 years. Similar evidence of a decline in the importance of inheritance from the 1920s to the 1970s has been uncovered in France, Sweden and the USA.

The "rich lists" published by Forbes magazine and others provide more up-to-date evidence on inheritance. Each year, Forbes provides a list of the world's billionaires and includes supplementary information, such as whether the billionaire was "self-made." Of the worldwide total of 1,226 billionaires in 2012, 842 billionaires (or 69%) were reported as self-made. That said, this figure is inflated by China, Russia, and other Eastern European countries, which account for 209 billionaires, only two of whom are not self-made. When these transition countries are excluded, only 62% of billionaires are self-made, with the implication that 38% owe their fortunes partly or wholly to inheritance. The self-made fraction varies greatly across countries - from just 35% in Germany and 40% in France, to 78% in Australia and 86% in the UK. In the United States, which has one-third of the world's billionaires, 73% are self-made billionaires.

Characteristics of inheritors

There is little to distinguish the relative wealth or age of self-made billionaires compared to those who inherited their fortunes. Excluding transition countries, inheritors average 64 years of age worldwide, while the self-made average 65 years. The average wealth of inheritors, at USD 4.2 billion, is 16% higher than that of the self-made. However, there is considerable variation in these patterns. For example, in France, Japan, and the UK, the inheritors are appreciably older than the self-made, while in China and Russia, billionaires are unusually young, averaging just 51 years of age.

Large countries are sometimes representative of their regions or sub-regions, and sometimes they are not. In continental Northern Europe, the percentage of self-made billionaires in France and Germany is similar to the Nordic countries (40%) self-made, excluding Norway) and Switzerland (44%); however, in the four other countries in the area with billionaires (Austria, Belgium, the Netherlands and Norway), 74% are self-made billionaires (14 out of 19). The self-made billionaire percentage (60%) in Brazil is fairly close to the figure of 56% for Latin America as a whole. Japan's percentage of self-made billionaires (75%) is high for the Asia-Pacific region, which (excluding China) has an overall figure of 58%, while India and Indonesia, at 42% and 53% respectively, are on the low side. Finally, in Africa 11 of its 16 billionaires (69%) are self-made, while the Middle East (excluding Israel) is at the opposite extreme with only 25 self-made billionaires out of 57 (44%). Israel differs from its neighbors with nine self-made billionaires out of 13 (69%).

The percentage of billionaires who are selfmade rises with age. Excluding the transition countries again, it is below 60% for those aged 25-44 or 45-54, but 67% or higher for the age group above 65. This reflects the fact that it takes time to build up a business or investments worth USD 1 billion or more starting from scratch. Inheritors, on the other hand, have had at least one more generation to build up their wealth, and they increase in frequency as wealth rises. The self-made percentage falls from 67% in the Forbes bottom quintile (i.e. bottom 20% group by level of wealth) to 47% for the top 5%. The sole exception is at the very top of the Forbes listing, where the self-made account for eight of the ten wealthiest billionaires. The attention given to self-made people at the apex of the world wealth distribution may create the impression that self-made fortunes become more common among billionaires as wealth rises, but this impression is misleading.

Trends over time

Changes over time in the importance of inheritance at different levels of wealth distribution have not been studied for the world as a whole, but have attracted attention in the USA, which has some of the best data in this respect. Survey data reveals that the percentage of families that received a wealth transfer in the form of a bequest or gift fell from 24% in 1989 to 18% in 2001, and subsequently increased to 21% in 2007. Demography provides possible explanations for this U-shaped trend. Over this period, longevity continued to rise



in the USA, particularly for males, reducing the number of transfers, since the bulk occurs at death. It may help to explain the decline between 1989 and 2001. The subsequent rise may be partly due to the aging of the large baby-boom cohort, which brought the group into "inheritance range" around the turn of the millennium.

The survey data also shows that wealth transfers are on average quite large, and that they rise steeply in importance with the level of income or wealth. From 1989 to 2007, they averaged USD 84,700 or 23% of net worth for the overall sample, and USD 408,400 for just those who had received transfers. Of those with income over USD 250,000, 38% had received a transfer, with an average amount of USD 3 million for recipients. For families in the top 1% of wealth distribution, the corresponding numbers were 44% with a transfer and an average amount of USD 5 million. Transfers were more common as well as larger for whites, the better educated and older people. The incidence was 25% for whites, 29% for those with 16 years of schooling (generally a post-secondary education), and 29% for those aged 75 or older.

Incidence of inheritance among the Forbes 400

Another source of data is the "Forbes 400" list of the 400 wealthiest individuals/families in the USA, which currently corresponds almost exactly to the list of US billionaires. In 2012, 69% were selfmade billionaires. In 2007 and in some earlier years, additional information on inheritors was provided, with 39% being classified as "inherited and growing" and 61% simply described as having inherited. In the USA – as for the world as a whole - the self-made percentage rises with age, but interestingly this percentage does not fall uniformly with the level of wealth. While 74% of those in the bottom quintile are self-made, the figure drops to an average of 67% for the next two quintiles, and subsequently rises to 68% in the fourth quintile and 70% in the top quintile. The rise in the incidence of the self-made in the higher ranges of the Forbes 400 list has often been noted and has a popular explanation. In the USA, each generation has entrepreneurs and investors who amass spectacular fortunes and rise to the top of the pyramid. When these "super billionaires" die, their fortunes are not passed on intact, but are divided among widows, children and other beneficiaries. Consequently, the second generation drops down the Forbes 400 list (or drops out altogether), the third generation falls further, and so on.

It is easier for a person to be successful and enter the Forbes 400 list when the economy is growing at a fast pace, business is booming, and asset prices are rising quickly. Although the two decades before the global financial crisis were interrupted by two recessions and associated stock market crashes, overall conditions were conducive

Percentage of inherited fortunes by age, 1982–2007

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2012



- aged under 55 - all ages - aged over 55

to the creation of new fortunes. Self-made billionaires would have been expected to oust inheritors in the Forbes 400 over much of this period, and this appears to have happened.

We use a sample that includes all the members of the Forbes 400 list in 2007, and smaller subsamples for earlier years, dropping a sufficient number of the least wealthy to keep the sample size constant as a percentage of the US adult population. Figure 1 shows the percentage of Forbes 400 billionaires who inherited their fortunes at certain intervals between 1982 and 2007, both for the group as a whole and split between those above or below the age of 55. The greater incidence of inheritance among younger members is once again evident. There is also a clear downward trend in the incidence of inheritance until the turn of the millennium, then an apparent rebound (as in the survey data), which could be a random event or due in part to demographics, as suggested earlier. Between 2000 and 2005, the number of billionaires with inherited fortunes in our Forbes 400 subsample rose by 26, of whom 17 were babyboomers aged between 40 and 55 from just four families. While there is clearly a degree of randomness involved here, the fact that so many new inheritors were created is partly a reflection of the number of children in these families. It therefore appears that the arrival of the large baby-boom cohort at "inheritance age" may have swelled the ranks of inheritors at the very top of the distribution. The fact that changes in business conditions are important, as well as demography, is indicated by the drop in the incidence of inheritance from 22% to 20% between 2005 and 2007. In this short time span, a surge in self-made billionaires, mainly in the financial sector, displaced a number of inheritors in the Forbes 400 list.

Figure 2

Inherited wealth as a percentage of total wealth under alternative steady state growth scenarios



What percentage of wealth is inherited?

Various attempts have been made to estimate the percentage of household wealth which is inherited. Using data on gifts and bequests received by the current generation has led one study to conclude that inheritances account for 46% of household wealth in the USA. But data on gifts and bequests are based on tax records, and may not be reliable, given the strong incentives to minimize the flow of intergenerational transfers that are subject to tax, via family trusts and other mechanisms. Another approach aims to estimate the non-inherited portion of wealth by combining past savings with those from earnings. The results are particularly sensitive to the treatment of the interest received on inherited wealth. If all the interest on inheritances is assigned to inherited wealth, then the share of inherited wealth in the USA is likely to be in the 50%-60% range; but the share would be only 20%-30% if the interest is allocated to life cycle savings. A compromise, dividing interest 50:50 between inheritances and life cycle savings, leads to an estimate of 35%-45% for the share of inherited wealth, which is broadly consistent with the results of about half a dozen leading studies on the topic.

The share of inherited wealth in G7 countries during the late-1900s

Studies that estimate the share of inherited wealth (I) in total wealth (W) usually refer to the USA before the turn of the century. In other contexts, predictions of the long-run equilibrium value of the share of inherited wealth can be derived from a simple formula, in which the inheritance share I/W is given by:

$I/W = \pi/(\pi + s/\rho)$

where π is the annual rate of flow of new inheritances out of self-accumulated wealth; s is the saving rate out of normal income; and ρ is the ratio of total wealth to total earnings (i.e. $\rho = W/E$, where E is total earned income).

One attractive feature of this equation is the ease with which realistic values can be assigned to the three parameters. The wealth to earnings ratio is expected to be a little above the ratio of household wealth to disposable income, which averaged 4-6 in G7 countries until the mid-1980s, but has risen more recently in most G7 countries. It seems reasonable to assume $\rho = 6$ for developed economies in the late-1900s, and s = 10% as representative of the savings rate in developed economies during the same historical period. Finally, with a generation typically lasting about 30 years, around 1/30th of wealth should be inherited each year. Thus, allowing for the fact that part of this inheritance derives from inherited rather than accumulated wealth, $\pi = 2\%$ appears reasonable. This set of parameter values yields I/W = 55%, which is in the middle of the range mentioned earlier, where all interest on inheritance is assigned to inherited wealth (which is implicitly assumed here).

The share of inherited wealth in other societies

Alternative sets of parameter values allow us to speculate on the share of inheritance in a variety of stylized hypothetical societies.

A: Low-growth traditional society ($\rho = 7, s = 5\%, \pi = 3\%$; I/W = 78%)

Pre-industrial societies before demographic transition – pre-modern Europe or India before the 19th century are typical examples here. Low or zero population and earnings growth makes high wealth relative to income likely since the wealthier older generation is relatively more important – both in population and economic terms – than in highergrowth scenarios. Poorly developed financial institutions and poverty generate a low saving rate (s), while a high mortality rate leads to a relatively high annual rate of flow of new inherited wealth (π). The result is a very high I/W, possibly reinforcing social and economic stagnation.

B: Slow-growing less-developed country ($\rho = 5, s = 5\%, \pi = 2\%$; I/W = 67%)

Most countries in Asia, Africa and Latin America were former examples of this type of society and some (Myanmar, Ethiopia, Paraguay, Bolivia...) still are going through demographic transition but still having low savings and low income growth. Fast population growth makes the elderly relatively unimportant, reducing mean wealth relative to mean income and producing a lower ρ than in a developed economy. The saving rate in a lowgrowth less-developed country (LDC) is still low we assume that the rate is the same as in a lowgrowth traditional society. The rate of flow of new inheritances is lower than in the traditional society due to the lower mortality rate: $\pi = 2\%$ illustrates this. The lower I/W ratio than in the traditional society indicates some grounds for optimism regarding future growth prospects, as self-accumulated wealth displaces inherited wealth to some extent.

C: Miracle economy $(\rho=4,s=20\%,\pi=1\%;I/W=17\%)$

The wealth-income ratio is low, the saving rate is high, and the annual flow of inherited wealth is low, reflecting the dominant population and economic weight of the young when both population and income grow quickly. This contrasts sharply with the traditional society or low-growth LDC. These parameter values would generate a very low I/W ratio if they persisted into a steady state. Germany and Japan, and afterwards the Asian Tigers, each
passed through the miracle economy phase in about three decades, i.e. very quickly. Thus, while the I/W likely fell in the miracle phases of these economies, we doubt if it fell into the 17% region predicted here for an economy in a "permanent miracle." On the other hand, the latest miracle economy, China, started out with an I/W (at least officially) of zero because it emerged from a society without any significant private property ownership or inherited wealth. The I/W has likely been rising slowly and should still be below the steady-state miracle level. If we also consider that China's saving rate has probably exceeded that of previous miracle economies, it appears the I/W must indeed be low in China today.

D: Low-growth developed economy ($\rho = 8, s = 5\%, \pi = 3\%$; I/W = 83%)

With the exception of the USA, there has been an upward trend in wealth-income ratios in most G7 countries since the mid-1980s, with values as high as 9 observed in Japan and the UK. At the same time, household saving rates have declined to levels around 5% or lower. One estimate for France suggests that the flow of inherited wealth has risen from about 5% of the gross domestic product (GDP) in the 1950s to 15% today, implying a large increase in π . A similar but smaller increase has also been noted for the UK. These changes result in a much higher steady-state level for I/W, which could be the future for all advanced countries, although hopefully the scenario will be limited to a small number of nations.

Inequality impacts of inheritance

The impact of inheritance on wealth inequality has been hotly debated for a long time. Distributional effects were particularly worrisome when primogeniture - the tradition of passing the bulk of personal wealth to the eldest son - was still prevalent. Nowadays, a more equal division of estates tends to mitigate the disequalizing impact of inheritance. Nevertheless, the view that inheritance increases inequality is still widely held and seems intuitive. In theory, this does not have to be the case. In the altruistic model of bequests, parents care about their children's welfare and give larger transfers to their lower-earning offspring, which can lead to a reduction in lifetime income inequality. While there is some empirical support for the altruistic models, the effect seems far too weak to ensure that intergenerational transfers are equalizing overall.

Conclusion

While inheritance creates opportunity for some, it is not equal opportunity and there may be other deleterious effects, e.g. on the work ethic and enterprise of the offspring who inherit and on the dynamism of economies with a high ratio of inherited wealth to total wealth. The latter aspects naturally lead to concerns about the level and distribution of inherited wealth. The evidence suggests that over much of the 20th century - until the 1970s - inherited wealth became relatively less important and more equally distributed in developed countries. If we consider the situation at the moment in the world, 69% of Forbes billionaires are self-made, and if we exclude China, Russia and the other transition countries, the figure is still 62%. In the USA, the percentage of Forbes 400 billionaires who inherited a fortune fell from 30%-35% in the early-1980s to 20%-22% in the mid-2000s. However, the latest evidence from the United States shows that the incidence of inheritance hit a low point at about the turn of the millennium and afterwards increased. The flow of inherited wealth has also risen somewhat in the UK. And there has been a large increase in the annual flow of new inheritances in France. These changes suggest that the importance of inheritance may be on the rise, a conclusion that is reinforced by our calculations, which indicate the combination of lower savings and a higher wealth-income ratio seen in many advanced economies in recent years are predictors of a higher ratio of inherited to total wealth in the future.

Reasonable assumptions suggest that inherited wealth likely accounts for 30%–50% of total household wealth in OECD countries. In low-growth or traditional societies the share is likely to be higher. At the other extreme, very little household wealth in today's transition economies was inherited, unless one treats those who purchased public assets at bargain prices as having "inherited" from the state.

Some academics have challenged the intuitive assumption that inheritance leads to greater inequality. Models with an altruistic bequest motive can lead to inheritances equalizing the long-run distribution of lifetime wealth because parents give more to their lower-earning children. While the "equalizing inheritances" school of thought has some empirical support, we believe that the equalizing effect is more apparent than real. Parental transfers may be helpful in mitigating hardship for some low-earning children, but the disequalizing effect of large bequests from wealthier parents is likely to dominate the overall impact.

If inherited wealth and the associated wealth inequality are viewed with concern, there are steps beside inheritance taxation that governments and the wealthy themselves can take to reduce or offset undesirable effects. For example, the wealthy can be encouraged through appropriate tax deductions or credits to increase the large-scale charitable donations they already make. Governments and business leaders can strive to maintain a level playing field so that unjustified wealth inequalities are avoided in the first place. They can also work to ensure that ordinary people have the tools to accumulate assets too. Such initiatives should be broadly acceptable and can help reduce the inequality in both wealth and inheritance.

What will the future bring?

Assuming moderate and stable economic growth, we expect total household wealth to rise by almost 50% in the next five years from USD 223 trillion in 2012 to USD 330 trillion in 2017. The number of million-aires worldwide is expected to increase by about 18 million, reaching 46 million in 2017. We expect China to add a total of USD 18 trillion to the stock of global wealth in the next five years and surpass Japan as the second-wealthiest country in the world. The USA should remain on top of the wealth league though, with USD 89 trillion by 2017.

Introduction

Despite the financial crisis, global household wealth increased by USD 109 trillion between 2000 and 2012. Emerging markets have been raising their share of world wealth and have increased their contribution to wealth growth over the last decade. But what is likely to happen in the near future? We paint a picture of future global household wealth by presenting estimates of total wealth and its distribution across regions by mid-2017. We expect that emerging economies will continue to catch up with developed economies, that the middle segment will increase in importance and that the number of millionaires will rise significantly.

World wealth at USD 330 trillion by 2017

Using the methodology outlined on page 43, we estimate that global net worth per adult will reach USD 67,000 by 2017, an increase of almost 40% relative to 2012. Total household wealth is projected to rise almost 50% (equivalent to 8% per

year), from USD 223 trillion in mid-2012 to USD 330 trillion by mid-2017. Our forecast increase in the stock of wealth by USD 107 trillion over the next five years is slightly lower than last year due to the deteriorating economic outlook.

According to our estimates, China is expected to surpass Japan as the second wealthiest country in the world, with total household wealth edging above USD 38 trillion in 2017. The USA is expected to maintain its supremacy in the wealth rankings with projected total household wealth of just above USD 89 trillion. Far behind in fourth and fifth place are France and Germany with USD 17.4 trillion and USD 16.7 trillion, respectively.

Leapfrogging

Over the next five years, we expect to see a big improvement in the position of emerging economies. For instance, in Figure 1, we compare the total wealth of some of the largest economies today and five years from now with the wealth of the USA during the course of the 20th century, adjusting for inflation.



Figure 1



Total wealth in the USA and relative position of selected economies (in USD trn)

Source: Credit Suisse

The chart shows the position of the Eurozone, Japan, Korea, Russia and China relative to the USA from a historical perspective. Despite having 16 million more adults than the USA, the Eurozone's total wealth of USD 47.2 trillion in 2012 is comparable to the total wealth of the USA in 2002. Five years from now, it should be only equivalent to today's level of wealth in the USA.

The case of Korea is striking. Its wealth could increase over the next five years to the same extent as US wealth increased over the course of the 16 years from 1905; Korean households' real wealth is expected to reach USD 4.2 trillion by 2017, comparable with the USA's level in 1921. It is worth noting, however, that the number of adults in Korea is substantially lower than the number in the USA at that time.

With total household wealth adding up to USD 20.2 trillion and accounting for 9% of global household wealth in 2012, China can be compared to the USA in 1970. If the recent growth trends continue, China could reach the real wealth level that the USA enjoyed in 1992, which would represent in a jump of 22 "USA years" in just five. What is most striking is the fact that, if Japan's lackluster performance during the last decade continues, we expect China to surpass Japan as the second wealthiest economy in the world. Total wealth in Japan is comparable to that of the USA in 1986, and it is expected to reach USD 32.6 trillion in 2017, an improvement of only three "USA years."

The case of Russia is also noteworthy. Total wealth in Russia increased sevenfold between 2000 and 2012, reaching USD 1.3 trillion in 2012. Despite this remarkable increase, total wealth in Russia is below the level for the USA 112 years ago. We expect it to reach USD 2.5 trillion in real

terms by 2017, which is comparable with the level in the USA in 1904.

Low and middle-income countries, which together account for 20% of global wealth in 2012, are expected to contribute 32% to global wealth growth between 2012 and 2017 (Figure 2). China will add a total of USD 18 trillion to the stock of global wealth in the next five years, a similar level to the rest of Asia-Pacific combined (excluding India). Latin America's contribution to global wealth growth is expected to be almost USD 6 trillion, as it is estimated that the region's wealth will rise to almost USD 15 trillion. Africa is far behind, with an estimated wealth of just below USD 4 trillion by 2017.

The middle and top segments

Over the last ten years, there has been an increase in the importance of what we call the "middle segment" of wealth distribution: adults with wealth holdings between USD 10,000 and USD 100,000. Figure 3 displays the current and estimated future wealth distribution. The middle segment currently accounts for 22.5% of adults, but this percentage should rise to 30% by 2017. An increase in the proportion of adults with wealth above USD 100,000 is also anticipated.

Figure 4 shows the current and estimated future regional composition of the middle segment. We expect growth in the middle segment to be led by China and India. Of the 1.5 billion adults whose wealth we estimate will be between USD 10,000 and 100,000 in 2017, 44% will reside in China – as opposed to 36% in 2012. China is expected to add 275 million adults and India almost 40 million adults to the middle segment in the next five years.

By 2017, almost one billion adults in the middle segment (two-thirds of the total) will be located in the Asia-Pacific region (including China and India).

Race to the top

Although the margin of error should be borne in mind, our forecasts help us to examine the likely changes in the wealth league tables. To make comparisons meaningful, we consider countries with more than one million inhabitants. Switzerland, Australia and Norway will likely remain at the top of the wealth-per-adult table. In terms of wealth per adult, by 2017 the USA should rise to fourth place displacing Japan, which will be downgraded to seventh place. South Africa is likely to see its ranking advance an astonishing 15 places, as its wealth per adult is expected to double over the next five years. Other resource-rich countries such as Brazil, Kazakhstan, Indonesia, Russia and Thailand should also guickly move up the wealth-per-adult rankings. China will jump 12 places (from 56 to 44) if our forecasts prove accurate.

The gross domestic product (GDP) per capita is expected to grow by 150% in Mongolia, 82% in Indonesia, 75% in Kazakhstan, 56% in Russia, 55% in China and 34% in Thailand, which will be the major driver of wealth accumulation over the next five years.

Focusing on the top segment of wealth distribution, our estimates suggest that the number of global millionaires could increase by about 18 million, reaching 46 million by the year 2017.

Who wants to be a millionaire?

Our estimates suggest that the number of global millionaires could exceed 46 million by 2017, a rise of more than 18 million. While the number of millionaires in emerging economies is still well below the level in the USA (16.9 million) and Europe (15.4 million), it is expected to increase substantially in the next few years. China could see its number double by 2017, raising the total to almost two million. We also expect to see a substantial increase in the number of millionaires in Brazil (a rise of 270,000), India (84,000), Singapore (93,000), Mexico (112,000) and Indonesia (103,000). In addition, the number of millionaires in transition economies is predicted to rise substantially over the next five years, reaching more than 200 thousand in Russia, 78 thousand in Poland and 40 thousand in the Czech Republic.

What if?

Financial wealth is highly correlated to the value of equities, which tend to be fairly volatile during times of economic stress due to the uncertainty surrounding the outlook for corporate earnings. Our estimates are based on the assumption that earnings growth will be in line with consensus expecta-

Figure 2

Share of wealth by country group and contribution to growth (in %)

Source: Credit Suisse



Figure 3 Wealth distribution (% of adults)

Source: Credit Suisse 80 69.3 70 59.6 60 50 40 30 30.0 22.5 20 10 9.4 75 0.6 09 0 USD 10,000-100,000 USD 100,000-1m USD 1m+ USD 0-10,000

2012 2017

Figure 4

Middle segment (% of adults)

Source: Credit Suisse



2RL

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tions. If risk aversion continues and earnings growth is worse than expected, the effect on wealth accumulation could be substantial. This could happen, for example, if global economic growth remains subdued in the coming years. We have also estimated the impact on financial wealth in a more pessimistic economic scenario.

Our findings indicate that slower growth means that the headline forecast could be some USD 40 trillion lower. Due to the higher share of financial assets in total wealth in high-income countries, this new scenario implies that low and middle-income countries can be expected to generate 39% of global wealth growth between 2012 and 2017 (as opposed to 32% in the baseline scenario) and to account for 25% of global wealth in 2017.

Methodology

We project total wealth at the country level by forecasting the two components of wealth – financial and non-financial – separately, but using the same inputs (GDP and inflation) from the International Monetary Fund's (IMF) latest World Economic Outlook database.

For aggregate financial wealth, we estimate a five-year projection of market value using a dividend discount model at the country level. To compute the discount rate, we assume that market conditions will normalize (risk appetite and volatility). We estimate dividends by using analyst consensus expectations and trend GDP growth. We subsequently 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 currencies and these are converted into US dollars using IMF exchange rate projections.

For non-financial wealth, we base our model on a regression of non-financial wealth on GDP and inflation and we produce a forecast based on IMF projections of these variables. Again, forecasts are in local currencies and they are converted into US dollars using IMF exchange rate projections. For countries for which we do not have any projections, we use GDP per capita growth to forecast net worth, and we assume that the percentage in financial/non-financial/debt is the same as in 2012.

Conclusion

Over the next few years, we expect to see an improvement in household wealth holdings and an increase in emerging economies' contribution to global growth. We also highlight the increase in the importance of the middle segment of the wealth distribution and the increasing number of millionaires in both high-income and emerging economies. Despite catching up rapidly in recent years, low and middle-income countries still have room for improvement in terms of personal wealth accumulation.

Table 1

Millionaires in 2012 and 2017 by region/selected countries Source: Credit Suisse

	Number (thousand)		Change	
	2012	2017	(%)	
USA	11,023	16,876	53%	
France	2,284	3,423	50%	
UK	1,582	2,678	69%	
Germany	1,463	2,556	75%	
Brazil	227	497	119%	
Korea	208	398	91%	
Mexico	141	253	79%	
Singapore	156	249	60%	
Indonesia	104	207	99%	
Russia	97	203	109%	
Hong Kong	92	180	96%	
Turkey	84	144	71%	
Poland	38	78	105%	
Malaysia	36	75	108%	
Colombia	46	64	39%	
Chile	42	62	48%	
Saudi Arabia	46	54	17%	
UAE	43	48	12%	
Czech Republic	24	40	67%	
Africa	95	191	101%	
Asia-Pacific	5,767	9,593	66%	
China	964	1,901	97%	
Europe	9,263	15,432	67%	
India	158	242	53%	
Latin America and Caribbean	527	978	86%	
North America	11,868	18,163	53%	
World	28,640	46,499	62%	



Wealth of nations

Countries differ greatly in the levels and pattern of wealth holdings. The following pages provide a picture of the variety of country circumstances and the range of experiences.

While data quality is good in the rich countries that have most of the world's wealth, when we look more broadly, quality is far from uniform. On the following pages, we highlight some of the most interesting countries. All of these have data on mean household wealth and evidence on the distribution of wealth across the population.

Data quality is rated as no worse than "fair," meaning that there is at least a recent household survey on wealth. In most of the selected countries quality is "good," meaning that there is an official household sector balance sheet as well as an acceptable way to estimate wealth distribution. A "satisfactory" rating is given when the data are good but somewhat out of date.

The accompanying charts summarize some of the most important facts, giving wealth values on a per-adult basis and mainly in terms of US dollars (based on official exchange rates). The first chart shows changes in mean wealth in 2000–12. Since exchange-rate fluctuations can alter the apparent trend, we provide an alternative series for each country using the respective average USD exchange rate for the twelve years. A typical pattern is a mild decline in mean wealth between 2000 and 2002, an increase until 2006 or 2007, and a drop in 2008 with a subsequent recovery, followed by a decline in 2012 partly or wholly due to exchange rate movements. Generally, wealth in 2012 is higher than in 2000, but about the same or slightly lower than in 2007. Also, since most currencies appreciated against the US dollar over the period, growth in a country's wealth does not usually appear to be strong based on the average exchange rate.

Countries that show typical features in 2000–12 include the USA itself (but there is no exchange rate factor), Canada, Denmark, France, and the UK. Some countries, notably China, India and Indonesia, record significantly above-average growth rates. At the other extreme, although Japan shows some growth in US dollars, it has suffered a long slow decline in the yen. Experiences after 2007 vary, with the UK, for example, recording a very large drop, and Switzerland showing no decline in 2008 in US dollars. Wealth in most major OECD economies, including the UK and the USA, still has not reached the 2007 level in constant exchange rate terms.

Our second chart shows the breakdown of countries' assets between financial and real (non-financial) forms, as well as mean debt and net worth. On average internationally, financial assets represent 53% of total assets, and debt is 15%. There are several countries, however, where financial assets are more important – for example, Japan, the USA and Switzerland. At the other extreme, real assets are very dominant in India and Indonesia, and in Australia and France among the wealthy countries.

Our last chart shows wealth distribution. There are some interesting contrasts. For example, 95% of adults in India have less than USD 10,000, whereas this percentage is only 60% in China. Also, the percentage for the very low wealth ranges is high in some developed countries, while in others it is very low. This reflects factors such as the availability of credit including student loans, as well as how many young adults live separately from their parents, making their low wealth more apparent.

United States

Land of fortunes

The USA has experienced fluctuating wealth levels since the year 2000. Average wealth was USD 192,400 at the turn of the century and rose fairly steadily until 2006, before falling as a result of the financial crisis (Figure 1). Since then, a recovery has taken place, but wealth per adult remains slightly below the 2006 level. It raises the question of whether the recovery will continue or whether the wealth level in the USA will decline again in the face of slower growth or a "double dip" recession.

The USA is unusual in having a very high proportion of assets (68%) reported as held in financial form, partly because it includes business equity wholly as a financial asset. If the more usual procedure of consolidating the balance sheet of unincorporated enterprises with that of the household sector were followed, the share would be about 60%, which is still relatively high. The USA has a larger number of active shareholders than most other countries. Also, compared with many other OECD countries, it has more economic activity in the private sector rather than the public sector, and more outward foreign investment — both of which rely partly on financing by households through their ownership of bonds, stocks and other financial instruments. Debts of USD 56,900 per adult are not extreme by international standards.

Compared to the wealth distribution in the rest of the world, the US distribution has a high proportion of the population with wealth above USD 100,000. The percentage of people with wealth at higher levels is even more disproportionate. The USA has by far the greatest number of members of the top 1% global wealth group, and accounts for 38% of the world's millionaires. The number of UHNW individuals with wealth above USD 50 million is eight times that of the next country, China.

Country summary 2012			
Population	324	million	
Adult population	237	million	
GDP	67,027	USD per adult	
Mean wealth	262,351	USD per adult	
Median wealth	38,786	USD per adult	
Total wealth	62.0	trillion USD	
Dollar millionaires	11,023	thousand	
Top 10% of global wealth holders	94,111	thousand	
Top 1% of global wealth holders	16,376	thousand	
Quality of wealth data	፞ ፝	good	

Figure 1 Wealth per adult over time



Figure 2 Composition of wealth per adult



Figure 3





Japan

Coping with adversity

Japan has had an especially bad year in the wake of the Tohoku earthquake in March 2011 (the strongest recorded quake in Japan's history), the Fukushima Daiichi nuclear disaster and the ensuing disruption to the economy. Despite these difficulties, Japan recorded a small increase in average wealth in 2012 in USD terms and only a slight decline in yen. It is still the world's fifth wealthiest country on a per-adult basis (just ahead of France), but Japan has recorded the slowest growth in wealth for a G7 country since 2000. It began the new century with wealth per adult of USD 190,000. Average wealth today is 41% higher in US dollar terms, but about 4% lower when measured in Japanese yen. This decline is due to the combined effect of the lackluster performance of equities, low interest rates and investment income, a housing market that has been on a downward trend since the 1990s, and a reduced saving rate.

The decline in property values means that financial wealth is now the major component of household wealth, making up 58% of gross assets. Debts have been declining and are modest by international standards, at 14% of total assets.

Japan has a relatively equal wealth distribution by international standards, reflected in a Gini coefficient of 60%. Together with its high average wealth, this relative equality means that few individuals have assets below USD 10,000. The proportion of the population with wealth above USD 100,000 is almost eight times the global average. At the turn of the century, the number of Japanese in the top 10% and top 1% of global wealth holders was a close second to the number for the USA. Japan is still in second place, but is likely to be overtaken by China before too long.

Country summary 2012			
Population	127	million	
Adult population	104	million	
GDP	56,375	USD per adult	
Mean wealth	269,708	USD per adult	
Median wealth	141,410	USD per adult	
Total wealth	28.1	trillion USD	
Dollar millionaires	3,581	thousand	
Top 10% of global wealth holders	75,525	thousand	
Top 1% of global wealth holders	6,590	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 %)

China

Star of the East

Wealth per adult in China has grown robustly since 2000, more than tripling from USD 6,000 to USD 20,500 in 2011. Wealth fell by approximately 20% as a result of the financial crisis, but has subsequently risen above its pre-crisis peak. The level has increased more in US dollars than in yuan, due to the gradual appreciation of China's currency; but most of the rise in wealth reflects real growth.

China's total household wealth is the third highest in the world, 25% behind Japan and 59% ahead of France (in fourth place). Due to a high savings rate and relatively well developed financial institutions, a high proportion (47%) of Chinese household assets are in financial form compared with other major developing or transition countries. At the same time, privatized housing, new construction and rural land are very important forms of wealth in China, accounting for much of the USD 11,200 in real assets per adult. Debt averages just USD 630, very small in international terms, and compares to the levels in developing rather than developed countries.

Although significant inequality is created by the strong urban-rural divide in China, overall wealth inequality in the year 2000 was low — both by broad international standards and in comparison to other transition countries. This was due to factors such as the virtual absence of inherited fortunes, and relatively equal division of both rural land and privatized housing. Wealth inequality has been rising strongly, however, with the increasing wealth of successful entrepreneurs, professionals and investors. This year, China had almost one million millionaires, and more residents with wealth above USD 50 million than any other country except the USA.

Country summary 2012			
Population	1,348	million	
Adult population	987	million	
GDP	7,717	USD per adult	
Mean wealth	20,452	USD per adult	
Median wealth	7,536	USD per adult	
Total wealth	20.2	trillion USD	
Dollar millionaires	964	thousand	
Top 10% of global wealth holders	34,996	thousand	
Top 1% of global wealth holders	1,537	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 %)



India

Unlocking wealth

As the world's largest democracy with a strong federal structure and vibrant markets, India has seen rapid growth in wealth since the year 2000. Wealth per adult rose from USD 2,000 in 2000 to USD 5,300 in 2011. Given the 29% rise in the adult population, aggregate wealth more than tripled during the same period. In US dollar terms, there was a significant contraction in 2008, but most of this was due to an exchange rate depreciation. The rupee took another dive in 2011–12, causing a 20% decline in wealth in USD terms. However, wealth per capita increased slightly measured in rupees. Adjusted for exchange rate movements, wealth growth has been quite steady since 2000, increasing at an average annual rate of 8%.

Together with most countries in the developing world, in India, personal wealth is heavily skewed towards property and other real assets, which make up 84% of estimated household assets. Personal debts are recorded at only USD 162 per adult. However, it has been claimed that the large and wellestablished household survey on which the debt for India is based suffers from a significant underreporting of household liabilities, with the result that this figure may have been underestimated.

While wealth has been rising strongly in India, and the ranks of the middle class and wealthy have been swelling, not everyone has shared in this growth and there is still a great deal of poverty. This is reflected in the fact that almost everyone in India (95%) has wealth below USD 10,000.

At the other end of the scale, a very small proportion of the population (just 0.3%) has a net worth over USD 100,000. However, due to India's large population, this translates into 2.3 million people. India has 237,000 members of the top 1% of global wealth holders, which equates to a 0.5% share. There are 1,500 UHNW individuals with wealth over USD 50 million and 700 with more than USD 100 million.

Country summary 2012			
Population	1,247	million	
Adult population	751	million	
GDP	2,359	USD per adult	
Mean wealth	4,250	USD per adult	
Median wealth	938	USD per adult	
Total wealth	3.2	trillion USD	
Dollar millionaires	158	thousand	
Top 10% of global wealth holders	3,616	thousand	
Top 1% of global wealth holders	237	thousand	
Quality of wealth data	***	fair	
1 0			



Figure 2 Composition of wealth per adult



Figure 3

Figure 1

Wealth distribution relative to world (in %)



France

Crossroads ahead

With a new president and a new approach at the top, France continues to struggle with high unemployment, low growth and the euro crisis. Despite these challenges, it remains sixth in the world in terms of household wealth per adult and enjoys enormous material and human resources. While the country's economy appears to be at something of a crossroads, it has weathered many previous difficulties and will do so again, if history is any guide.

After the turn of the century, wealth per adult grew very strongly in France, tripling in value between 2000 and 2007. It then decreased by 15% in 2008 and has suffered another decline this year after an interim improvement. Much of the pre-2007 rise was due to the appreciation of the euro against the US dollar. However, France also experienced a rapid rise in house prices, as a result of which real property now accounts for two-thirds of household assets. Personal debts are just 11% of household assets, a relatively low ratio for a developed economy.

In both euro and US dollar terms, the total wealth of French households is very sizeable. Although just 1.1% of the world's adults live here, France ranks fourth among nations in terms of aggregate household wealth – behind China and just ahead of the UK. Europe as a whole accounts for 33% of individuals in the top 1% of global wealth holders, but France itself makes up one quarter of the European contingent. This reflects not only the high average net worth of French households, but also the greater financial inequality in relation to most other EU countries.

Relatively few households in France are recorded as having less than USD 10,000 per adult. The proportion with assets over USD 100,000 is five times the global figure. There are more millionaires in France than in any other European country. But both the UK and Germany have more people above the USD 50 million mark, and above USD 100 million.

Country summary 2012		
Population	63	million
Adult population	48	million
GDP	57,244	USD per adult
Mean wealth	265,463	USD per adult
Median wealth	81,274	USD per adult
Total wealth	12.7	trillion USD
Dollar millionaires	2,284	thousand
Top 10% of global wealth holders	23,948	thousand
Top 1% of global wealth holders	3,540	thousand
Quality of wealth data	ት ት ት ት ት	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

Olympic dreams

The UK has some of the best data in the world on wealth holdings, with information on both the level and the distribution of wealth dating back more than a century. These document a substantial decline in wealth concentration during 1900–70, and the relative stability of the wealth to income ratio during the same period, with the value typically lying between 4 and 5 for much of the time.

This changed around 1985, when UK wealth embarked on a period of sustained growth fuelled by a robust housing market and good equity returns, which culminated with the financial crisis in 2007. At that time, the increase in the wealth-income ratio exceeded 9, the highest level recorded for any country except for 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 36% drop in average wealth measured in current US dollars, but only a 12% drop in pounds sterling, which was soon recovered, although the movement in the past few years has been very flat. The current hope is that a successful Olympic Games will rekindle optimism in a sluggish economy, which continues to suffer setbacks linked to problems with the banking sector and the Eurozone.

Financial assets and non-financial assets are roughly equal in importance in the UK. At about 20% of net worth, debt is not exceptionally high by international standards, but in a similar development to many other countries, the household debt to income ratio grew quickly from 1980 onwards, tripling in value to 1.8 in 2008, although the ratio has since subsided to 1.5.

The current pattern of wealth distribution in the UK is very typical for a developed economy. Slightly more than half the population has wealth exceeding USD 100,000, and there are 1.6 million US dollar millionaires. Also, 2.7 million people in the UK are among the wealthiest 1% in the world.

Population	()	
	63	million
Adult population	48	million
GDP	50,616	USD per adult
Vean wealth	250,005	USD per adult
Vedian wealth	115,245	USD per adult
Total wealth	12.0	trillion USD
Dollar millionaires	1,582	thousand
Top 10% of global wealth holders	29,321	thousand
Top 1% of global wealth holders	2,729	thousand
Quality of wealth data	ት ት ት ት ት	good

Figure 1 Wealth per adult over time





Figure 2 Composition of wealth per adult



Figure 3

Wealth distribution relative to world (in %)



Switzerland

View from the top

Average wealth in Switzerland in 2000 was among the highest in the world. By 2011, it had more than doubled (expressed in US dollars), propelling Switzerland to the top of the global rankings. Despite a small drop related to the exchange rate, Switzerland in 2012 still has the highest wealth per adult in the world. At USD 468,200, it is more than USD 100,000 ahead of its nearest rival, Australia. However, almost all the rise in wealth between 2000 and 2011 is due to the appreciation of the Swiss franc against the US dollar. Measured instead in Swiss francs, household wealth fell in 2001 and 2002, and then showed a gentle upward trend, interrupted only by the global financial crisis.

Given the strength of the Swiss financial sector, it is not surprising that most household wealth is held in financial assets, whose share of total assets is 58% – similar to Japan and the USA (after adjusting the US number for a difference in definitions). Debts average USD 121,400 per adult, one of the highest levels in the world, again reflecting the strength of the domestic currency.

From the group of about half a dozen advanced countries with long time series on wealth distribution, Switzerland is the only country to display just a small decrease in wealth inequality over the past century. As a consequence, a large proportion of the Swiss population is located in the upper echelons of the global distribution. Switzerland accounts for 1.6% of the top 1% of global wealth holders, remarkable for a country with just 0.1% of the world's population. More than 90% of Swiss adults have assets above USD 10,000 and 47% of the population is worth more than USD 100,000. Over 3,000 individuals are in the UHNW bracket, with wealth over USD 50 million, and 700 have a net worth exceeding USD 100 million.

Country summary 2012		
Population	8	million
Adult population	6	million
GDP	100,895	USD per adult
Mean wealth	468,186	USD per adult
Median wealth	87,137	USD per adult
Total wealth	2.8	trillion USD
Dollar millionaires	562	thousand
Top 10% of global wealth holders	3,304	thousand
Top 1% of global wealth holders	738	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 %)



Russia

Bear market

At the time of transition, there were hopes that Russia would transform itself into a high-skilled, high-income economy with strong social protection programs inherited from the Soviet Union era. This is almost a parody of what happened. Efforts were made at the outset to distribute state assets equitably. Most of the housing stock was given away to residents and a voucher scheme for Gazprom shares resulted in a million Russian citizens becoming shareholders. But other choice assets in resource-rich companies went to the chosen few, and subsequent developments in a nation notorious for weak institutions have reinforced the importance of political connections at the expense of managerial and entrepreneurial talent.

While the country's future prospects may be appropriately bearish, the past decade has seen robust growth fuelled by a world hungry for the natural resources that Russia has in abundance. Based on constant exchange rates, household wealth has risen eightfold, from USD 1,700 in 2000 to USD 13,600 today. Wealth per adult has recovered from the postcrisis lows, but is still below the peak achieved in 2007, when less than RUB 25 bought USD 1; now it takes nearly RUB 32.

The quality of Russia's wealth data is mixed. Financial balance sheets are now available and indicate that gross financial assets average a little over USD 4,000 per adult. There is less information available on real assets, but our estimates suggest that they are twice as high. Personal debt grew by a factor of 20 during 2000–07, but still remains quite low at USD 1,260 per adult.

Excluding small Caribbean nations with resident billionaires, wealth inequality in Russia is the highest in the world. Worldwide there is one billionaire for every USD 194 billion in household wealth; Russia has one billionaire for every USD 15 billion. Worldwide, billionaires collectively account for less than 2% of total household wealth; in Russia today, around 100 billionaires own 30% of all personal assets.

Country summary 2012 Population 139 million Adult population million 111 GDP USD per adult 17.115 Mean wealth USD per adult 12,161 Median wealth USD per adult 1,267 trillion USD Total wealth 1.3 Dollar millionaires thousand 97 Top 10% of global wealth holders thousand 1,370 Top 1% of global wealth holders thousand 137 Quality of wealth data *** fair

Figure 1 Wealth per adult over time







Figure 3

Wealth distribution relative to world (in %)



Singapore

Robust, stable growth

Household wealth in Singapore has grown vigorously in recent years, rising from USD 112,800 at the turn of the century to USD 258,000 by mid-2012. Most of the rise is due to the saving rate and asset price increases rather than exchange rate movements, although the latter provided a strong boost after the global financial crisis. Singapore now ranks eighth in the world in terms of mean personal wealth. Interestingly, it is now well ahead of Hong Kong, which was ranked tenth in the world in 2000, just above Singapore. We note that wealth in Hong Kong grew at an average annual rate of only 1.7% between 2000 and 2012 versus 7.1% for Singapore. The underlying wealth data for Hong Kong are poor compared to those for Singapore, but the difference in these estimated growth rates is credible. A similar difference is found in the growth rates of per-capita gross domestic product (GDP): 2.8% per annum for Hong Kong versus 8.8% for Singapore.

Household assets in Singapore are divided roughly equally into financial assets and real assets, reflecting the government's strong encouragement for both saving and home ownership. The average debt of USD 45,600 is moderate for a high wealth country, equating to just 15% of total assets. Singapore publishes official household balance sheet data, which means that the information is more reliable than that for other countries in the Southeast Asian region, which lack such high quality data.

The distribution of wealth in Singapore reveals only moderate inequality. Just 20% of its people have wealth below USD 10,000, versus 69% for the world as a whole, and the number with wealth above USD 100,000 is about six times the global average. Reflecting its very high average wealth rather than high inequality, 0.6% of its population or 258,000 individuals are in the top 1% of global wealth holders, while its adult population accounts for just 0.1% of the world total.

0			
Country summary 2012			
Population	5	million	
Adult population	4	million	
GDP	63,596	USD per adult	
Mean wealth	258,117	USD per adult	
Median wealth	95,542	USD per adult	
Total wealth	1.0	trillion USD	
Dollar millionaires	156	thousand	
Top 10% of global wealth holders	2,137	thousand	
Top 1% of global wealth holders	258	thousand	
Quality of wealth data	ት ት ት ት ት	good	

Figure 1 Wealth per adult over time



Figure 2 Composition of wealth per adult



Figure 3

Wealth distribution relative to world (in %)



Korea

Asian tiger

Korea's average level of wealth, at USD 70,000 per adult, is relatively high among Asian countries, but lags that of Hong Kong, Singapore, Taiwan and Japan. Wealth rose sharply from USD 33,000 in 2000 to USD 83,100 in 2007, partly due to a higher exchange rate. This was followed by a large drop in 2008 to USD 56,900, exacerbated by an exchange rate decline. The subsequent recovery has not returned wealth to its 2007 peak in USD terms, but at constant exchange rates the recovery was achieved in 2009 and since then there has been modest growth. Overall, in USD terms, wealth grew at an average annual rate of 6.9% between 2000 and 2012.

Reflecting a high saving rate and well-developed financial institutions, the composition of household wealth emphasizes financial assets, which comprise 55% of gross assets. Average debt, at USD 24,800, is sizeable and amounts to 26% of gross assets or 36% of net worth – high levels by either Asia-Pacific or global standards.

Compared to the rest of world, wealth distribution in Korea is skewed towards the high end, whereby individuals with wealth below USD 10,000 make up less than half of the global percentage but those who own more than USD 10,000 are about two and a half times the global percentage. This reflects Korea's high average wealth, rather than high wealth inequality. The Gini coefficient for wealth in Korea is 73%, which is similar to values recorded in Western Europe.

Country summary 2012		
Population	49	million
Adult population	38	million
GDP	29,860	USD per adult
Mean wealth	69,646	USD per adult
Median wealth	27,080	USD per adult
Total wealth	2.6	trillion USD
Dollar millionaires	208	thousand
Top 10% of global wealth holders	7,611	thousand
Top 1% of global wealth holders	332	thousand
Quality of wealth data	***	satisfactory

Figure 1 Wealth per adult over time



Figure 2 Composition of wealth per adult



Figure 3





Indonesia

Strong growth

The rise in personal wealth in Indonesia is very strong, with average wealth increasing more than fourfold since the year 2000. The rebound from the Asian financial crisis of 1997–98 has been impressive. In USD terms, the global financial crisis caused a small setback, but growth recovered quickly and wealth per adult is now well above the pre-crisis level. The declines in wealth observed in 2007–08 and in 2011–12 appear in both cases to be entirely due to exchange rate fluctuations.

The comparison between Indonesia and India is interesting. In 2000, wealth per adult in both 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 the faster pace of growth in Indonesia's GDP, which grew at an average annual rate of 12.5% between 2000 and 2012 compared with 9.3% for India. The composition of wealth appears to be similar, with real assets making up 83% of gross assets compared with 84% in India, according to our estimates. Personal debts in both countries are very low on average, although the figure of USD 261 for Indonesia may have been underestimated, reflecting an underreporting of debt in the household surveys that are the primary source in this instance.

In Indonesia, 82% of its population owns less than USD 10,000, which is greater than the global figure of 69%. At higher wealth levels, there are progressively fewer people than there are for the world as a whole. This reflects the fact that while wealth has risen strongly in Indonesia in recent years, it is still low by international standards. However, due to considerable dispersion in wealth distribution, 162,000 people in the country are in the top 1% of global wealth holders, and 104,000 are US dollar millionaires.

Country summary 2012			
Population	237	million	
Adult population	155	million	
GDP	5,580	USD per adult	
Mean wealth	10,842	USD per adult	
Median wealth	2,293	USD per adult	
Total wealth	1.7	trillion USD	
Dollar millionaires	104	thousand	
Top 10% of global wealth holders	3,080	thousand	
Top 1% of global wealth holders	162	thousand	
Quality of wealth data	***	fair	

Figure 1 Wealth per adult over time



USD 12,000 _____



Figure 3

Figure 2

Wealth distribution relative to world (in %)



South Africa

Southern success

South Africa has one of the most successful African economies and is an exciting emerging market. Its average household wealth grew vigorously prior to the global financial crisis, tripling from USD 8,400 in the year 2000 to USD 25,800 in 2007. Growth was similar in constant exchange rate terms. Since 2007, progress has been slower. There was a large drop in wealth in 2008 measured in USD, but it was mostly due to a decline in the exchange rate. In constant exchange rate terms, the 2008 fall was mild and growth since then has been slow but fairly steady.

Unusually for a developing country, household wealth is largely comprised of financial assets, which contribute 70% to the household portfolio. This reflects a vigorous stock market and sophisticated life insurance and pension industries, which are key aspects of the strong modern sector of the economy. Average real assets of USD 7,900 are not significantly above the average level of debt (USD 5,200), in part the result of relatively low real estate prices. South Africa is also unusual among developing countries in having an official household sector balance sheet, which provides a more reliable basis for the wealth composition numbers.

As in Indonesia, the distribution of wealth in South Africa is roughly similar to the distribution for the world as a whole, except that fewer individuals have wealth above USD 100,000 and correspondingly more are in the USD 10,000–100,000 wealth group. Nevertheless, we estimate that there are 44,000 USD millionaires in the country, and that 71,000 South Africans are members of the top 1% of global wealth holders.

Country summary 2012		
Population	51	million
Adult population	31	million
GDP	13,488	USD per adult
Mean wealth	21,458	USD per adult
Median wealth	3,822	USD per adult
Total wealth	0.7	trillion USD
Dollar millionaires	44	thousand
Top 10% of global wealth holders	1,586	thousand
Top 1% of global wealth holders	71	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 high growth

Chile has one of the strongest economies in Latin America. For example, compared with Argentina and Brazil, its GDP is growing faster, inflation is lower, and the stock market has been performing better. But the contrast in household wealth is even greater. Chile's per-capita GDP is one-third greater than Argentina's and 18% greater than Brazil's, but its average wealth is almost double that of Brazil and is two and a half times greater than Argentina's. Since the year 2000, wealth per capita has risen 129% based on constant exchange rates and 153% based on current exchange rates, reflecting the strength of the peso. We also note that at constant exchange rates, wealth during the global financial crisis fell only slightly and has been on an upward path since then.

Chilean household wealth is equally divided between financial and real assets. Holdings of financial assets have been encouraged by low inflation, well developed financial markets, and a pioneering pension system. The high home ownership rate of 70% is equal to that of the USA, and contributes to substantial holdings of real property. At 13.7% of gross assets, household liabilities are relatively small by international standards.

Mean wealth in Chile at USD 44,200 is well above the world average, and is also high compared with most emerging market countries. Compared with 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. On the other hand, at 7%, the percentage of adults in the USD 100,000 to USD 1 million range is the same as for the whole world. Overall inequality is relatively high, as demonstrated by the Gini coefficient of 77.4% and by the fact that Chile has 42,000 millionaires and 66,000 adults in the top 1% of global wealth holders.

Country summary 2012				
Population	17	million		
Adult population	12	million		
GDP	21,161	USD per adult		
Mean wealth	44,198	USD per adult		
Median wealth	13,073	USD per adult		
Total wealth	0.5	trillion USD		
Dollar millionaires	42	thousand		
Top 10% of global wealth holders	1,416	thousand		
Top 1% of global wealth holders	66	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 %)

Brazil

Awakening giant

Brazil's average household wealth tripled between 2000 and 2012, rising from USD 8,300 per adult to USD 29,000. While exchange rate changes caused fluctuations, including sizeable drops in 2008 and 2012, the overall rise over the last 12 years is very similar, regardless of whether it measured at current or constant exchange rates. Current wealth is now well above the level reached before the global financial crisis in 2007, based on either exchange rate calculation.

One interesting feature is the importance of financial assets. At 42.4% of gross assets, financial assets are not too far behind the 50% benchmark that represents the rough average for advanced countries. This is a sign of considerable financial development. The strong representation of financial assets was achieved, despite a stock market decline of about 18% since 2009 and Brazil's earlier history of inflation, which discouraged the holding of safe financial assets (e.g. deposits) and fostered investment in real property instead. Household liabilities are 21% of gross assets, suggesting households are somewhat susceptible to a deterioration in macroeconomic conditions, which could occur as a result of the current slowdown of the world economy and the sensitivity of Brazil's economy to export demand.

Similar to a number of other Latin American countries, Brazil has more people in the USD 10,000–100,000 range relative to the rest of the world, but fewer numbers in each of the other ranges. This may give a misleading impression that inequality is lower than average. Actually, overall inequality is relatively high, as shown by the Gini coefficient value of 80% and by the fact that Brazil has 227,000 millionaires and 352,000 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 2012 Population 199 million Adult population 133 million GDP 18,802 USD per adult Mean wealth 24,600 USD per adult Median wealth 5,852 USD per adult Total wealth 3.3 trillion USD Dollar millionaires 227 thousand Top 10% of global wealth holders thousand 6,656 Top 1% of global wealth holders thousand 352 Quality of wealth data *** fair

Figure 1 Wealth per adult over time







Figure 3

Wealth distribution relative to world (in %)



Australia

Slowing pace

In US dollar terms, Australia experienced very rapid growth between 2000 and 2011, with a short interruption in 2008. The average annual growth rate was 13%, but half of the increase was due to an exchange rate appreciation. Since 2007, wealth has merely grown at 1.2% per annum, based on constant exchange rates. Still, its wealth per adult in 2012, at USD 355,000, was the second highest in the world – after Switzerland and ahead of Norway. More surprisingly perhaps, its median wealth of USD 194,000 is the highest in the world.

A noticeable feature is the composition of wealth, which is heavily skewed towards real assets, which amount on average to USD 288,000 and form 64% of total household assets. In fact, the level of real assets per adult in Australia is now the second highest in the world after Norway. In part, this reflects a sparsely populated country with a large endowment of land and natural resources, but it is also affected by high urban real estate prices.

Compared to the rest of the world, very few Australians have a net worth that is less than USD 10,000. This reflects factors such as relatively low credit card and student loan debt. The proportion of those with wealth above USD 100,000 is the highest of any country – eight times the world average. With 1,571,000 people in the top 1% of global wealth holders, Australia accounts for 3.4% of this wealthy group, despite having just 0.4% of the world's adult population.

Country summary 2012				
Population	22	million		
Adult population	16	million		
GDP	89,846	USD per adult		
Mean wealth	354,986	USD per adult		
Median wealth	193,653	USD per adult		
Total wealth	5.8	trillion USD		
Dollar millionaires	905	thousand		
Top 10% of global wealth holders	12,079	thousand		
Top 1% of global wealth holders	1,571	thousand		
Quality of wealth data	ት ት ት ት ት	good		

Figure 1 Wealth per adult over time







Figure 3 Wealth distribution relative to world (in %)



Canada

Cloudy horizon

Canada weathered the global financial crisis better than the USA, thanks to its more conservative banking practices. The recession of 2008–09 was also fairly mild and short. The long-term rise in real estate was interrupted for a brief spell only and *since* 2008 the market has seen new construction and house price increases that were common in many countries prior to this date. Rapid growth in mortgages has fuelled a continuing rise in household debt. Mortgage terms have been tightened and the housing market is slowing. It is not clear whether the final landing will be soft or hard. Added to this worry is concern about falling commodity prices – always an issue for a resource-intensive economy.

Measured in USD, household wealth grew at an annual rate of 7.8% between 2000 and mid-2012. If we exclude exchange rate changes, the rise in wealth is more modest, with annual growth of 3.7%. Also, the 25% contraction in wealth in US dollars in 2008 is much smaller when expressed in Canadian dollars.

Although Canada's macroeconomic performance has surpassed the USA's over the last few years, at USD 227,700 wealth per adult in Canada is 13% lower than it is in the USA (USD 262,400). Canada is similar to the USA in that more than half of its household wealth is held in financial assets. Wealth here is more equally distributed than in the USA, which is reflected in the much higher median wealth of USD 81,600 compared with 38,800 for the USA. Compared to the USA, 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 842,000 millionaires, and accounts for 3% of the top 1% of global wealth holders, despite having only 0.5% of the world's population.

Country summary 2012				
Population	35	million		
Adult population	27	million		
GDP	65,728	USD per adult		
Mean wealth	227,660	USD per adult		
Median wealth	81,610	USD per adult		
Total wealth	6.1	trillion USD		
Dollar millionaires	842	thousand		
Top 10% of global wealth holders	13,621	thousand		
Top 1% of global wealth holders	1,428	thousand		
Quality of wealth data	ል ቅቅቅቅ	good		

Figure 1 Wealth per adult over time



Figure 2 Composition of wealth per adult



Figure 3

Wealth distribution relative to world (in %)



About the authors

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 age-wealth relationship: A cross section and cohort analysis" (Review of Economics and Statistics1975), "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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